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Qualification Pack



Application Developer - Web & Mobile

Electives: Front-end Web Development/ Mobile Application Development/
Back-end Engineering

QP Code: SSC/Q8403

Version: 2.0

NSQF Level: 5

IT-ITes Sector Skill Council || NASSCOM Plot No - 7, 8, 9 & 10, 3rd Floor, Sector 126
Noida Uttar Pradesh - 201303

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SSC/Q8403: Application Developer - Web & Mobile

Brief Job Description

Individuals in this job role are responsible for the design and development and maintenance of web-based and mobile based application. They manage application lifecycles and ensure the processes for continuous integration and delivery.

Personal Attributes

Individuals in this role must work and collaborate with various stakeholders involved in the development of web-based or mobile-based applications and solutions. They must be able to communicate and build relationships with others and continuously develop their knowledge and analytical abilities.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [SSC/N8417: Implement DevSecOps or continuous integration/continuous delivery practices for continuous deployment of applications](#)
2. [SSC/N8125: Develop tests or simulations for end-to-end QA of systems](#)
3. [SSC/N8418: Fix application bugs and improve application performance](#)
4. [SSC/N8323: Monitor and manage cloud applications and the deployed systems](#)
5. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Electives (mandatory to select at least one):

Elective 1: Front-end Web Development

This unit is about developing web application for different platforms keeping in mind the different requirements of the application/ solution

1. [SSC/N8414: Develop consistent and user-friendly web app for the target platform aligned to the functional, non-functional and user experience requirements](#)

Elective 2: Mobile Application Development

This unit is about developing mobile applications for different types of mobile platforms

1. [SSC/N8415: Develop native/cross-platform/hybrid mobile application for the target platforms](#)

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Elective 3: Back-end Engineering

This unit is about developing reliable and secure back-end APIs and services for any software product/ solution

1. [SSC/N8416: Develop reliable, scalable and secure back-end aligned to the application architecture](#)

Qualification Pack (QP) Parameters

Sector	IT-ITes
Sub-Sector	Future Skills
Occupation	Web & Mobile Development
Country	India
NSQF Level	5
Credits	18
Aligned to NCO/ISCO/ISIC Code	NCO-2015/2512.0204
Minimum Educational Qualification & Experience	Completed 2nd year of UG (UG Diploma) (UG Program of 3 or 4 years (Engineering/ Science)) OR Completed 2nd year diploma after 12th OR Previous relevant Qualification of NSQF Level (NSQF Level 4) with 3 Years of experience relevant experience in relevant field
Minimum Level of Education for Training in School	12th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	21 Years
Last Reviewed On	NA
Next Review Date	25/06/2025
NSQF Approval Date	25/06/2020
Version	2.0
Reference code on NQR	QG-05-IT-00512-2023-V1.1-NASSCOM



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NQR Version	2
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SSC/N8417: Implement DevSecOps or continuous integration/continuous delivery practices for continuous deployment of applications

Description

This unit is about implementing DevSecOps practices, managing and maintaining application source code, version control and automating application build and testing

Scope

The scope covers the following :

- Version control
- Build and test automation
- Deployment

Elements and Performance Criteria

Version control

To be competent, the user/individual on the job must be able to:

- PC1.** Maintain and secure the repository for managing application source code
- PC2.** Manage changes to the application code/ source code through a version control system
- PC3.** Implement the procedures & policies for code tagging, branching, merger and integration
- PC4.** Integrate version control systems with the project management tools

Build and test automation

To be competent, the user/individual on the job must be able to:

- PC5.** Manage application environment variables and configuration for the target environment
- PC6.** Automate application build testing/security through scripts and test automation tools
- PC7.** Test, identify, notify and fix build failure issues along with continuous integration

Deployment

To be competent, the user/individual on the job must be able to:

- PC8.** Implement application deployment policies and adhere to processes defined in the organisation
- PC9.** Push applications to their appropriate services (such as web servers, API services, and database services etc.)
- PC10.** Leverage appropriate automation tools to manage the CI/CD pipeline

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Organisational policies, procedures and guidelines which relate to implementing DevSecOps practices
- KU2.** Organisational policies and procedures for sharing data



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- KU3.** Organisational policies and procedures for documenting DevSecOps practices
- KU4.** Whom to involve while defining continuous integration and continuous delivery practices
- KU5.** The range of standard templates and tools available and how to use them
- KU6.** How to manage application source code
- KU7.** Different types of repositories to manage application source code
- KU8.** Different types of version control system
- KU9.** How to manage and track change to application source code
- KU10.** How to manage application environment variables
- KU11.** How to build application from source code
- KU12.** How to test application for build failure
- KU13.** How to automate application build and testing process
- KU14.** Different types of tools to automate application build and testing
- KU15.** How to deploy applications
- KU16.** How to continuously integrate changes to application source code
- KU17.** How to continuously delivery and deploy successful builds of the application

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Follow instructions, guidelines, procedures, rules and service level agreements
- GS2.** Work independently and collaboratively
- GS3.** Communicate with others in writing
- GS4.** Understand business impact and disseminate relevant information to others
- GS5.** Analyse data and understand its implications on business
- GS6.** Pass on relevant information to others
- GS7.** Apply good attention to detail
- GS8.** Check the work is complete and free from errors
- GS9.** Follow rule-based decision-making processes
- GS10.** Plan and organize the work to achieve targets and deadlines
- GS11.** Apply problem-solving approaches in different situations

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Version control</i>	14	30	-	-
PC1. Maintain and secure the repository for managing application source code	3	6	-	-
PC2. Manage changes to the application code/ source code through a version control system	3	8	-	-
PC3. Implement the procedures & policies for code tagging, branching, merger and integration	4	8	-	-
PC4. Integrate version control systems with the project management tools	4	8	-	-
<i>Build and test automation</i>	11	20	-	-
PC5. Manage application environment variables and configuration for the target environment	4	8	-	-
PC6. Automate application build testing/security through scripts and test automation tools	4	6	-	-
PC7. Test, identify, notify and fix build failure issues along with continuous integration	3	6	-	-
<i>Deployment</i>	7	18	-	-
PC8. Implement application deployment policies and adhere to processes defined in the organisation	3	6	-	-
PC9. Push applications to their appropriate services (such as web servers, API services, and database services etc.)	2	6	-	-
PC10. Leverage appropriate automation tools to manage the CI/CD pipeline	2	6	-	-
NOS Total	32	68	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	SSC/N8417
NOS Name	Implement DevSecOps or continuous integration/continuous delivery practices for continuous deployment of applications
Sector	IT-ITeS
Sub-Sector	Future Skills
Occupation	Web & Mobile Development
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	03/05/2026
NSQC Clearance Date	03/05/2023

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SSC/N8125: Develop tests or simulations for end-to-end QA of systems

Description

This unit is about designing and developing test or simulation infrastructures to perform end-to-end QA of functionality, usability, compatibility, security, and/or performance of hardware and software systems that are supporting the deployment of algorithmic models.

Scope

The scope covers the following :

- Define requirements, create test cases, run test cases
- Functional, usability, compatibility, security, performance, regression

Elements and Performance Criteria

Define requirements

To be competent, the user/individual on the job must be able to:

- PC1.** define functional requirements of the autonomous system
- PC2.** define the type of testing and testing requirements such as unit, sub-system, system etc.
- PC3.** identify any issues with the requirements for testing and clarify these with appropriate people
- PC4.** access reusable scenarios, test cases, scripts and tools from your organizations knowledge base

Create test cases

To be competent, the user/individual on the job must be able to:

- PC5.** create or modify test scenarios relevant to the requirements
- PC6.** create or modify software test cases relevant to the requirements
- PC7.** create or modify hardware test cases relevant to the requirements
- PC8.** identify test cases that can be automated feasibly
- PC9.** create or modify automated scripts relevant to the requirements
- PC10.** access or create test data relevant to the requirements
- PC11.** create a test plan to cover all the requirements

Run test cases

To be competent, the user/individual on the job must be able to:

- PC12.** run the simulated test cases and evaluate the outcomes
- PC13.** communicate the outcomes of the tests or simulations with appropriate people and iterate
- PC14.** create documentation on the tests or simulations for appropriate people
- PC15.** validate the test plan, test cases and/or automated scripts with appropriate people

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:



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- KU1.** the purpose and aims of the autonomous system being developed
- KU2.** organizational policies, procedures and priorities for developing tests or simulations for hardware and software systems
- KU3.** their organizations knowledge base and how to access and update information on scenarios, test cases, scripts and tools
- KU4.** who you may need to involve when developing tests or simulations for hardware and software systems
- KU5.** organizational policies and procedures for documenting simulations
- KU6.** the application and use of test or simulation tools
- KU7.** the approval process for testing of software and hardware systems
- KU8.** different sources of information available for designing tests and how to access these
- KU9.** difference between different types of testing such as unit, sub-system, system, automated
- KU10.** issues that may occur with the testing requirements and how to address these
- KU11.** the principles of designing tests
- KU12.** different simulation tool providers such as Autodesk and how to use their tools
- KU13.** how to evaluate and select the best simulation tool for your purposes
- KU14.** different test automation tools such as Selenium and how to use them
- KU15.** how to create suitable tests for particular applications
- KU16.** how to check whether test cases are suitable to be automated
- KU17.** how to access, create and modify different types of-high level scenariotest casesautomatic scriptstest datatest plans
- KU18.** different simulation methodologies and procedures used to check the tests are working and are fit for purpose
- KU19.** how to analyze and use feedback to improve your simulations
- KU20.** scripting/programming of languages to understand test cases
- KU21.** current practice in the design of tests for software and hardware systems
- KU22.** how to identify and refer anomalies
- KU23.** how to work on various operating systems such as linux, ubuntu, or windows

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** make a decision on a suitable course of action
- GS2.** apply problem-solving approaches in different situations
- GS3.** analyze data and activities
- GS4.** configure data and disseminate relevant information to others
- GS5.** apply balanced judgments to different situations
- GS6.** check your work is complete and free from errors

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Define requirements</i>	8	12	-	-
PC1. define functional requirements of the autonomous system	2	3	-	-
PC2. define the type of testing and testing requirements such as unit, sub-system, system etc.	2	3	-	-
PC3. identify any issues with the requirements for testing and clarify these with appropriate people	2	3	-	-
PC4. access reusable scenarios, test cases, scripts and tools from your organizations knowledge base	2	3	-	-
<i>Create test cases</i>	19	41	-	-
PC5. create or modify test scenarios relevant to the requirements	3	7	-	-
PC6. create or modify software test cases relevant to the requirements	3	7	-	-
PC7. create or modify hardware test cases relevant to the requirements	3	7	-	-
PC8. identify test cases that can be automated feasibly	2	3	-	-
PC9. create or modify automated scripts relevant to the requirements	3	7	-	-
PC10. access or create test data relevant to the requirements	2	3	-	-
PC11. create a test plan to cover all the requirements	3	7	-	-
<i>Run test cases</i>	2	18	-	-
PC12. run the simulated test cases and evaluate the outcomes	2	3	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. communicate the outcomes of the tests or simulations with appropriate people and iterate	-	5	-	-
PC14. create documentation on the tests or simulations for appropriate people	-	5	-	-
PC15. validate the test plan, test cases and/or automated scripts with appropriate people	-	5	-	-
NOS Total	29	71	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	SSC/N8125
NOS Name	Develop tests or simulations for end-to-end QA of systems
Sector	IT-ITeS
Sub-Sector	Future Skills
Occupation	Artificial Intelligence and Big Data Analytics
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	03/05/2026
NSQF Clearance Date	03/05/2023

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SSC/N8418: Fix application bugs and improve application performance

Description

This unit is about identify bugs in an application, isolating them and then analyzing the logs to ensure smooth application performance

Scope

The scope covers the following :

- Record the bug
- Identify the bug
- Isolate the bug
- Log analysis

Elements and Performance Criteria

Record the bug

To be competent, the user/individual on the job must be able to:

- PC1.** Record the bug or enter it in the case tracking system
- PC2.** Identify what the user was doing, what they were expecting and what happened instead
- PC3.** Copy the error message and search for relevant solutions on developer forums

Identify the bug

To be competent, the user/individual on the job must be able to:

- PC4.** Determine the immediate line of code where the bug occurs
- PC5.** Specify the bug type (e.g., unexpected null, bad input, off-by-one, buffer overflow, index out-of-range, etc.)

Isolate the bug

To be competent, the user/individual on the job must be able to:

- PC6.** Use the process of elimination to isolate the bug to a particular line of code
- PC7.** Disable blocks of code (comment them out) until the crash stops happening
- PC8.** Use a unit-testing framework to isolate methods
- PC9.** Continue to disable code and reduce the application to minimal functionality until it begins working again
- PC10.** Eliminate the hardware or platform as a cause

Log Analysis

To be competent, the user/individual on the job must be able to:

- PC11.** Log all activities and analyze the logs
- PC12.** Continue the isolation and logging processes until immediate line of code where bug occurs is identified

Knowledge and Understanding (KU)

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The individual on the job needs to know and understand:

- KU1.** Organisational policies, procedures and guidelines which relate to analyzing functional and non-functional requirements for the solution
- KU2.** Organisational policies, procedures and guidelines which relate to logging and log analysis
- KU3.** Organisational policies and procedures for sharing data
- KU4.** Organisational policies and procedures for documenting results of application tests and log analysis
- KU5.** Whom to involve while identifying bugs in the application code
- KU6.** The range of standard templates and tools available and how to use them
- KU7.** Issues that may occur with the testing requirements and how to address these
- KU8.** How to analyse application log files
- KU9.** Different test automation tools and how to use them
- KU10.** How to create suitable tests for particular applications
- KU11.**
 - How to access, create and modify different types of -
 - a. high level scenarios
 - b. test cases
 - c. automatic scripts
 - d. test data
 - e. test plans
- KU12.** Scripting / programming of languages to understand test cases
- KU13.** How to identify and record bugs in the application code
- KU14.** How to analyze and use feedback to fix application bugs

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Follow instructions, guidelines, procedures, rules and service level agreements
- GS2.** Ask for clarification and advice from appropriate people
- GS3.** Listen effectively and orally communicate information accurately
- GS4.** Follow rule-based decision-making processes
- GS5.** Plan and organize the own work to achieve targets and deadlines
- GS6.** Make decisions on suitable courses
- GS7.** Refer anomalies to the supervisor
- GS8.** Seek clarification on problems from others
- GS9.** Analyse data and activities
- GS10.** Pass on relevant information to others
- GS11.** Apply balanced judgments to different situations
- GS12.** Apply good attention to detail
- GS13.** Check the work is complete and free from errors
- GS14.** Work independently and collaboratively

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Record the bug</i>	7	17	-	-
PC1. Record the bug or enter it in the case tracking system	2	4	-	-
PC2. Identify what the user was doing, what they were expecting and what happened instead	2	6	-	-
PC3. Copy the error message and search for relevant solutions on developer forums	3	7	-	-
<i>Identify the bug</i>	6	14	-	-
PC4. Determine the immediate line of code where the bug occurs	3	7	-	-
PC5. Specify the bug type (e.g., unexpected null, bad input, off-by-one, buffer overflow, index out-of-range, etc.)	3	7	-	-
<i>Isolate the bug</i>	13	27	-	-
PC6. Use the process of elimination to isolate the bug to a particular line of code	3	5	-	-
PC7. Disable blocks of code (comment them out) until the crash stops happening	3	5	-	-
PC8. Use a unit-testing framework to isolate methods	3	5	-	-
PC9. Continue to disable code and reduce the application to minimal functionality until it begins working again	2	6	-	-
PC10. Eliminate the hardware or platform as a cause	2	6	-	-
<i>Log Analysis</i>	4	12	-	-
PC11. Log all activities and analyze the logs	2	6	-	-
PC12. Continue the isolation and logging processes until immediate line of code where bug occurs is identified	2	6	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	30	70	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	SSC/N8418
NOS Name	Fix application bugs and improve application performance
Sector	IT-ITeS
Sub-Sector	Future Skills
Occupation	Web & Mobile Development
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	03/05/2026
NSQF Clearance Date	03/05/2023

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SSC/N8323: Monitor and manage cloud applications and the deployed systems

Description

This unit is about monitoring and managing the performance of the applications and the deployed systems.

Scope

The scope covers the following :

- Gather requirements
- Monitor system performance
- Report application performance

Elements and Performance Criteria

Gather requirements

To be competent, the user/individual on the job must be able to:

- PC1.** identify the factors which impact the performance of the cloud application
- PC2.** analyze ways to optimize applications in terms of cost and resource utilization

Monitor system performance

To be competent, the user/individual on the job must be able to:

- PC3.** define metrics to monitor application performance and the health of deployed systems
- PC4.** monitor application log reports for errors and clues about problems with the application and the deployed systems on the cloud
- PC5.** assess and deploy appropriate application monitoring tools to track cloud application performance
- PC6.** perform analysis to generate consumable reports about cloud application performance

Report application performance

To be competent, the user/individual on the job must be able to:

- PC7.** share application performance reports with relevant stakeholders
- PC8.** provide actionable insights for re-engineering the application

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organizational policies, procedures, and guidelines that relate to the monitoring of applications and deployed systems
- KU2.** organizational policies and procedures for sharing data
- KU3.** organizational policies and procedures for documenting performance insights of applications and deployed systems

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- KU4.** who to involve in sharing reports on the performance of applications and deployed systems
- KU5.** the range of standard templates and tools available and how to use them
- KU6.** different ways to monitor and optimize utilization of resources
- KU7.** how to define metrics to monitor applications and deployed systems
- KU8.** different types of application monitoring tools
- KU9.** how to interpret application performance reports

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** ask for clarification and advice from appropriate people
- GS2.** listen effectively and communicate information accurately
- GS3.** work independently and collaboratively
- GS4.** analyze the impact of architectural and design decisions on business and organization
- GS5.** pass on relevant information to others
- GS6.** apply good attention to detail
- GS7.** work effectively in a customer-facing environment
- GS8.** plan and organize your work to achieve targets and meet deadlines

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Gather requirements</i>	8	19	-	-
PC1. identify the factors which impact the performance of the cloud application	3	7	-	-
PC2. analyze ways to optimize applications in terms of cost and resource utilization	5	12	-	-
<i>Monitor system performance</i>	17	39	-	-
PC3. define metrics to monitor application performance and the health of deployed systems	5	12	-	-
PC4. monitor application log reports for errors and clues about problems with the application and the deployed systems on the cloud	4	9	-	-
PC5. assess and deploy appropriate application monitoring tools to track cloud application performance	4	9	-	-
PC6. perform analysis to generate consumable reports about cloud application performance	4	9	-	-
<i>Report application performance</i>	5	12	-	-
PC7. share application performance reports with relevant stakeholders	3	7	-	-
PC8. provide actionable insights for re-engineering the application	2	5	-	-
NOS Total	30	70	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	SSC/N8323
NOS Name	Monitor and manage cloud applications and the deployed systems
Sector	IT-ITeS
Sub-Sector	Future Skills
Occupation	Cloud Computing
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	03/05/2026
NSQC Clearance Date	03/05/2023

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DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

- PC1.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

- PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

To be competent, the user/individual on the job must be able to:



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- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

To be competent, the user/individual on the job must be able to:

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

To be competent, the user/individual on the job must be able to:

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

To be competent, the user/individual on the job must be able to:

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

To be competent, the user/individual on the job must be able to:

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.

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PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings

Qualification Pack

- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode
- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	23/06/2023
Next Review Date	23/06/2026
NSQC Clearance Date	23/06/2023

Qualification Pack

SSC/N8414: Develop consistent and user-friendly web app for the target platform aligned to the functional, non-functional and user experience requirements

Description

This unit is about developing web application for different platforms keeping in mind the different requirements of the application/ solution

Scope

The scope covers the following :

- Understanding the scope
- Design and development

Elements and Performance Criteria

Understanding the scope

To be competent, the user/individual on the job must be able to:

- PC1.** Collaborate with cross functional teams to understand the scope
- PC2.** Understand and analysed the functional, non-functional and user experience requirements with which the interface must be developed
- PC3.** Create list of tasks that the user can execute within the interface based on the requirements identified
- PC4.** Organise the list of tasks and interfaces needed for the overall application
- PC5.** Create a pre-list of possible re-usable components before starting the development

Design and development

To be competent, the user/individual on the job must be able to:

- PC6.** Develop web prototypes based on the flows identified
- PC7.** Define the structure of the pages, the headers, the sections, the articles, main, footer, etc.
- PC8.** Develop codes for the various pages, the headers, the sections, the articles, main, footer, etc.
- PC9.** Develop application code as per the security requirements
- PC10.** Design and develop unit tests for the application code
- PC11.** Build, run and test the application before deployment

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Organisational policies, procedures and guidelines which relate to building and maintaining applications
- KU2.** Organisational policies and procedures for sharing data



Qualification Pack

- KU3.** Organisational policies and procedures for documenting and managing security configurations
- KU4.** Whom to involve while defining continuous integration and continuous delivery practices
- KU5.** The range of standard templates and tools available and how to use them
- KU6.** Different types of application dependencies
- KU7.** How to deploy application dependencies
- KU8.** How to create serverless applications
- KU9.** How to create application micro-services
- KU10.** How to develop a service oriented architecture based applications
- KU11.** How to develop secure APIs
- KU12.** How to scale applications horizontally
- KU13.** How to build resilient applications
- KU14.** Different types of container technologies
- KU15.** How to build application from source code
- KU16.** How to test application for build failure
- KU17.** How to automate application build and testing process
- KU18.** Different types of tools to automate application build and testing
- KU19.** Different types of security standards and protocols
- KU20.** Different types of security authentication measures and tools
- KU21.** Different types of compliance/ regulatory standards
- KU22.** Different types of security tests
- KU23.** How to encrypt data

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Follow instructions, guidelines, procedures, rules and service level agreements
- GS2.** Work independently and collaboratively
- GS3.** Communicate with others in writing
- GS4.** Understand architecture related decisions on business and organization
- GS5.** Understand business impact and disseminate relevant information to others
- GS6.** Pass on relevant information to others
- GS7.** Check the work is complete and free from errors
- GS8.** Apply balanced judgments to different situations
- GS9.** Make decisions on suitable courses
- GS10.** Plan and organize the work to achieve targets and deadlines
- GS11.** Apply problem-solving approaches in different situations
- GS12.** Seek clarification on problems from others

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Understanding the scope</i>	10	24	-	-
PC1. Collaborate with cross functional teams to understand the scope	2	4	-	-
PC2. Understand and analysed the functional, non-functional and user experience requirements with which the interface must be developed	2	5	-	-
PC3. Create list of tasks that the user can execute within the interface based on the requirements identified	2	5	-	-
PC4. Organise the list of tasks and interfaces needed for the overall application	2	5	-	-
PC5. Create a pre-list of possible re-usable components before starting the development	2	5	-	-
<i>Design and development</i>	22	44	-	-
PC6. Develop web prototypes based on the flows identified	3	6	-	-
PC7. Define the structure of the pages, the headers, the sections, the articles, main, footer, etc.	4	8	-	-
PC8. Develop codes for the various pages, the headers, the sections, the articles, main, footer, etc.	4	8	-	-
PC9. Develop application code as per the security requirements	4	8	-	-
PC10. Design and develop unit tests for the application code	4	8	-	-
PC11. Build, run and test the application before deployment	3	6	-	-
NOS Total	32	68	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	SSC/N8414
NOS Name	Develop consistent and user-friendly web app for the target platform aligned to the functional, non-functional and user experience requirements
Sector	IT-ITeS
Sub-Sector	Future Skills
Occupation	Web & Mobile Development
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	03/05/2026
NSQC Clearance Date	03/05/2023

Qualification Pack

SSC/N8415: Develop native/cross-platform/hybrid mobile application for the target platforms

Description

This unit is about developing mobile applications for different types of mobile platforms

Scope

The scope covers the following :

- Requirements mapping
- Application development
- Publishing to app-stores

Elements and Performance Criteria

Requirements mapping

To be competent, the user/individual on the job must be able to:

- PC1.** Obtain information about the mobile solution, the user and similar market solutions
- PC2.** Identify the functional, non-functional and user experience requirements of the mobile application
- PC3.** Identify dependencies related to application development (such as time to market, access to device hardware functionalities, support for third-party integrations etc.)

Application development

To be competent, the user/individual on the job must be able to:

- PC4.** Develop application code as per the security requirements
- PC5.** Encrypt data to ensure the security of data whenever applicable
- PC6.** Manage security configuration of the application and ensure regulatory compliances are met
- PC7.** Design and develop unit tests for the application code
- PC8.** Build, run and test the application before deployment
- PC9.** Develop capabilities in the platform to enable A/B testing of product/features

Publishing to app-stores

To be competent, the user/individual on the job must be able to:

- PC10.** Create and maintain service configurations for deployment of application code/ source code
- PC11.** Automate the deployment process through scripts and tools
- PC12.** Publish the mobile application on to the respective application platform/ app-store

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Organisational policies, procedures and guidelines which relate to building and maintaining applications



Qualification Pack

- KU2.** Organisational policies and procedures for sharing data
- KU3.** Organisational policies and procedures for documenting and managing security configurations
- KU4.** Whom to involve while defining continuous integration and continuous delivery practices
- KU5.** The range of standard templates and tools available and how to use them
- KU6.** Different types of mobile application dependencies
- KU7.** How to develop native mobile applications for a particular mobile platform
- KU8.** How to develop hybrid mobile applications by leveraging the power of web
- KU9.** How to develop cross-platform applications that can run on multiple mobile platforms
- KU10.** How to develop secure APIs for the mobile application
- KU11.** How to scale applications horizontally
- KU12.** How to build resilient mobile applications
- KU13.** How to build application from source code
- KU14.** How to test application for build failure
- KU15.** How to automate application build and testing process
- KU16.** Different types of tools to automate application build and testing
- KU17.** Different types of security standards and protocols
- KU18.** Different types of security authentication measures and tools
- KU19.** How to encrypt and obfuscate data on mobile devices
- KU20.** How to deploy applications on mobile app-stores

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Follow instructions, guidelines, procedures, rules and service level agreements
- GS2.** Work independently and collaboratively
- GS3.** Communicate with others in writing
- GS4.** Understand architecture related decisions on business and organization
- GS5.** Understand business impact and disseminate relevant information to others
- GS6.** Pass on relevant information to others
- GS7.** Check the work is complete and free from errors
- GS8.** Apply balanced judgments to different situations
- GS9.** Make decisions on suitable courses
- GS10.** Plan and organize the work to achieve targets and deadlines
- GS11.** Apply problem-solving approaches in different situations
- GS12.** Seek clarification on problems from others



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Requirements mapping</i>	6	13	-	-
PC1. Obtain information about the mobile solution, the user and similar market solutions	2	3	-	-
PC2. Identify the functional, non-functional and user experience requirements of the mobile application	2	5	-	-
PC3. Identify dependencies related to application development (such as time to market, access to device hardware functionalities, support for third-party integrations etc.)	2	5	-	-
<i>Application development</i>	17	37	-	-
PC4. Develop application code as per the security requirements	3	8	-	-
PC5. Encrypt data to ensure the security of data whenever applicable	3	6	-	-
PC6. Manage security configuration of the application and ensure regulatory compliances are met	2	5	-	-
PC7. Design and develop unit tests for the application code	3	6	-	-
PC8. Build, run and test the application before deployment	3	6	-	-
PC9. Develop capabilities in the platform to enable A/B testing of product/features	3	6	-	-
<i>Publishing to app-stores</i>	8	19	-	-
PC10. Create and maintain service configurations for deployment of application code/ source code	3	8	-	-
PC11. Automate the deployment process through scripts and tools	3	8	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. Publish the mobile application on to the respective application platform/ app-store	2	3	-	-
NOS Total	31	69	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	SSC/N8415
NOS Name	Develop native/cross-platform/hybrid mobile application for the target platforms
Sector	IT-ITeS
Sub-Sector	Future Skills
Occupation	Web & Mobile Development
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	03/05/2026
NSQC Clearance Date	03/05/2023

Qualification Pack

SSC/N8416: Develop reliable, scalable and secure back-end aligned to the application architecture

Description

This unit is about developing reliable and secure back-end APIs and services for any software product/solution

Scope

The scope covers the following :

- Identification of scope
- Design back-end
- Design back-end APIs and services
- Design database
- Reliability and scalability
- Write test scripts
- Back-end development

Elements and Performance Criteria

Identification of scope

To be competent, the user/individual on the job must be able to:

- PC1.** Demarcate backend and frontend responsibilities before the start of application development
- PC2.** Identify scope of backend operations and functionalities

Design back-end

To be competent, the user/individual on the job must be able to:

- PC3.** Design server endpoints that can be used to connect with client
- PC4.** Create stubs for both upstream and backstream to have a working backend

Design back-end APIs and services

To be competent, the user/individual on the job must be able to:

- PC5.** Document what every backend API endpoint must do
- PC6.** Document what kind of values need to be provided by the client, and will be returned by the backend
- PC7.** Specify which values are mandatory and which ones are optional
- PC8.** Ensure that documentation is kept up to date

Design database

To be competent, the user/individual on the job must be able to:

- PC9.** Document to design the database schema

Reliability and scalability

To be competent, the user/individual on the job must be able to:

- PC10.** Ensure that the above processes are performed in line with defined reliability and scalability requirements

Qualification Pack

Write test scripts

To be competent, the user/individual on the job must be able to:

PC11. Write test scripts that verify if all backend endpoints are working

Back-end development

To be competent, the user/individual on the job must be able to:

PC12. Build the API using a selected programming language

PC13. Deploy backend using a cloud service or a dedicated host

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Organisational policies, procedures and guidelines which relate to building and maintaining applications
- KU2.** Organisational policies and procedures for sharing data
- KU3.** Organisational policies and procedures for documenting and managing security configurations
- KU4.** Whom to involve while defining continuous integration and continuous delivery practices
- KU5.** The range of standard templates and tools available and how to use them
- KU6.** Different types of back-end software architectures
- KU7.** Different types of back-end frameworks
- KU8.** How to develop secure back-end APIs
- KU9.** How to develop back-end services
- KU10.** How to scale applications horizontally
- KU11.** How to automate back-end tasks using scripts
- KU12.** How to automate application build and testing process
- KU13.** Different types of tools to automate application build and testing
- KU14.** Different types of security standards and protocols
- KU15.** Different types of security authentication measures and tools
- KU16.** How to encrypt and obfuscate data on mobile devices
- KU17.** How to monitor usage of servers and computing resources

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Follow instructions, guidelines, procedures, rules and service level agreements
- GS2.** Work independently and collaboratively
- GS3.** Communicate with others in writing
- GS4.** Understand architecture related decisions on business and organization
- GS5.** Understand business impact and disseminate relevant information to others
- GS6.** Pass on relevant information to others



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- GS7.** Check the work is complete and free from errors
- GS8.** Apply balanced judgments to different situations
- GS9.** Make decisions on suitable courses
- GS10.** Plan and organize the work to achieve targets and deadlines
- GS11.** Apply problem-solving approaches in different situations
- GS12.** Seek clarification on problems from others

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identification of scope</i>	4	10	-	-
PC1. Demarcate backend and frontend responsibilities before the start of application development	2	4	-	-
PC2. Identify scope of backend operations and functionalities	2	6	-	-
<i>Design back-end</i>	6	14	-	-
PC3. Design server endpoints that can be used to connect with client	3	7	-	-
PC4. Create stubs for both upstream and backstream to have a working backend	3	7	-	-
<i>Design back-end APIs and services</i>	8	12	-	-
PC5. Document what every backend API endpoint must do	2	3	-	-
PC6. Document what kind of values need to be provided by the client, and will be returned by the backend	2	3	-	-
PC7. Specify which values are mandatory and which ones are optional	2	3	-	-
PC8. Ensure that documentation is kept up to date	2	3	-	-
<i>Design database</i>	2	3	-	-
PC9. Document to design the database schema	2	3	-	-
<i>Reliability and scalability</i>	2	6	-	-
PC10. Ensure that the above processes are performed in line with defined reliability and scalability requirements	2	6	-	-
<i>Write test scripts</i>	3	7	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. Write test scripts that verify if all backend endpoints are working	3	7	-	-
<i>Back-end development</i>	7	16	-	-
PC12. Build the API using a selected programming language	4	9	-	-
PC13. Deploy backend using a cloud service or a dedicated host	3	7	-	-
NOS Total	32	68	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	SSC/N8416
NOS Name	Develop reliable, scalable and secure back-end aligned to the application architecture
Sector	IT-ITeS
Sub-Sector	Future Skills
Occupation	Web & Mobile Development
NSQF Level	5
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	03/05/2026
NSQC Clearance Date	03/05/2023

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training center (as per the assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass a QP, a trainee should score an average of 70% or more.

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7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
SSC/N8417.Implement DevSecOps or continuous integration/continuous delivery practices for continuous deployment of applications	32	68	-	-	100	18
SSC/N8125.Develop tests or simulations for end-to-end QA of systems	29	71	-	-	100	17
SSC/N8418.Fix application bugs and improve application performance	30	70	-	-	100	18
SSC/N8323.Monitor and manage cloud applications and the deployed systems	30	70	-	-	100	17
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	141	309	-	-	450	80

Elective: 1 Front-end Web Development



Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
SSC/N8414.Develop consistent and user-friendly web app for the target platform aligned to the functional, non-functional and user experience requirements	32	68	-	-	100	20
Total	32	68	-	-	100	20

Elective: 2 Mobile Application Development

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
SSC/N8415.Develop native/cross-platform/hybrid mobile application for the target platforms	31	69	-	-	100	20
Total	31	69	-	-	100	20

Elective: 3 Back-end Engineering

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
SSC/N8416.Develop reliable, scalable and secure back-end aligned to the application architecture	32	68	-	-	100	20
Total	32	68	-	-	100	20

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.



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Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.