



# **NATIONAL SKILLS QUALIFICATION**

## **LEVEL 5**

### **TITLE:**

*(MOBILE APPLICATION DEVELOPMENT)*

**YEAR: 2024**

# **NATIONAL SKILLS QUALIFICATION**

## **LEVEL 5 - MOBILE APPLICATION DEVELOPMENT**

### **GENERAL INFORMATION**

#### **QUALIFICATION PURPOSE**

This qualification is aimed at developing competence in mobile applications development across different platforms. The focus is on generic mobile programming language training and workplace experience.

#### **QUALIFICATION OBJECTIVES**

To achieve this qualification, the Mobile Application Developer should gain the following competencies:

- Write code for mobile application features.
- Carry out various types of mobile testing
- Understand how debugging is performed.
- Understand how to publish mobile apps online.
- Discuss monetization in relation to mobile application.
- Integrating external libraries.
- Understanding licensing in relation to mobile application.
- Developing documentations for mobile application products.
- Understand different storage techniques.
- Perform mobile databases operations.
- Perform cloud storage operations.

### Mandatory Units

Unit No	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Remark
01	ICT/MOB/001/L5	Occupational Health and Safety	2	20	Level 5
02	ICT/MOB/002/L5	Communication and Interpersonal Skills	2	20	Level 5
03	ICT/MOB/003/L5	Teamwork	2	20	Level 5
04	ICT/MOB/004/L5	Essentials of Data Handling	4	40	Level 5
05	ICT/MOB/005/L5	Developing Background Services	4	40	Level 5
06	ICT/MOB/006/L5	Testing and Debugging Mobile Applications	6	60	Level 5
07	ICT/MOB/007/L5	Publishing Mobile Apps Online	4	40	Level 5
08	ICT/MOB/008/L5	Monetization of mobile applications	4	40	Level 5
09	ICT/MOB/009/L5	Licensing and Integration with libraries	6	60	Level 5
10	ICT/MOB/010/L5	Architectural patterns in mobile Development	4	40	Level 5
11	ICT/MOB/011/L5	Repositories in Mobile Application Development	6	60	Level 5
12	ICT/MOB/012/L5	Project Management in Mobile Applications	4	40	Level 5
<b>TOTAL</b>			<b>44</b>	<b>440</b>	

## **National Skill Qualification**

### **LEVEL 5 - MOBILE APPLICATION DEVELOPMENT**

#### **Unit 1: OCCUPATIONAL HEALTH AND SAFETY**

**Unit Reference Number: ICT/MOB/001/L5**

**Level: 5**

**Credit Value: 2**

**Guided Learning Hours: 20**

**Unit Purpose:** This unit specifies the competencies required to demonstrate understanding of safe work practices.

#### **Unit Objectives**

**At the end of this unit, the learner should be able to:**

1. Understand about workplace safety.
2. The correct use of signs and symbols.
3. identifying and reducing risks of hazards in the work environment.

#### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

#### ***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Assignment (ASS), etc.

## UNIT 01: OCCUPATIONAL HEALTH AND SAFETY

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
			The learner can:								
<b>LO 1:</b> Understand Safe working Practices and Instructions	1.1	Explain safe work practice and instructions.									
	1.2	Identify safety signs and symbols.									
	1.3	Use signs and symbols correctly.									
	1.4	Carry out safe work practices and instructions.									
	1.5	Comply to accordance with health and safety best practices.									
<b>LO 2:</b> Demonstrate Understanding of Safety Hazards and risks	2.1	Identify work environment hazards.									
	2.2	List various ways to avoid common workplace hazards									
	2.3	State methods to reduce the risk of work hazards.									
<b>LO 3:</b> Possess the ability to take appropriate actions during accident/injuries	3.1	Identify basic first aid equipment.									
	3.2	identify the benefits of first aid equipment									
	3.3	State how to maintain hygienic, safe and secure workplace.									
	3.4	State the uses of safety equipment in a mobile application work environment.									
<b>LO 4:</b> Demonstrate safe work habit and clean work environment	4.1	Use safe access and exit routes in the work environment.									
	4.2	Have knowledge of safe work habit and clean work environment.									
	4.3	Dispose all wastes appropriately to designated waste facilities									

# **NATIONAL SKILLS QUALIFICATION**

## **LEVEL 5 Mobile Application Development**

### **UNIT 2: COMMUNICATION AND INTERPERSONAL SKILLS**

**Unit Reference Number: ICT/MOB/002/L5**

**Level: 5**

**Credit Value: 2**

**Guided Learning Hours: 20**

**Unit Purpose:** This unit aims to provide the competencies required to demonstrate good communication and interpersonal skills.

**Unit Objectives:**

This unit aims to train learners the ability to read and understand documented instructions and the ability to know how to communicate respectfully when in a bad mood or under pressure.

**Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

**Assessment methods to be used include:**

1. Direct Observation/oral questions (DO).
2. Question and Answer (QA).
3. Professional Discussion (PD).
4. Reflective Journal (RJ).

## UNIT 02: COMMUNICATION AND INTERPERSONAL SKILL

LEARNING OBJECTIVE (LO)  The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type					Evidence Ref. Page No.				
LO 1: Demonstrate knowledge of the importance of good communication	1.1	State reasons why good communication is important.										
	1.2	List ways to communicate effectively.										
	1.3	Exhibit patience and a mild demeanour while communicating with colleagues, managers and clients.										
	1.4	Speak in a professional manner.										
	1.5	Use respectful body language even when in a bad mood or while under pressure.										
LO 2: Demonstrate ability to follow documented instructions	2.1	Read accurately follow steps in a mobile framework/plugin installation documentation.										
	2.2	Interpret and understand mobile app documentation.										
	2.3	While programming, find specific class definitions and method descriptions in documentations.										
LO 3: Demonstrate ability to create documented instructions	3.1	Determine what is needed in a documented instruction										
	3.2	Describe how the scope of the documented instruction is valid										
	3.3	Explain the importance of the documented instruction.										

# **NATIONAL SKILLS QUALIFICATION**

## **LEVEL 5 Mobile Application Development**

### **Unit 3: TEAMWORK**

**Unit Reference Number: ICT/MOB/003/L5**

**NSQ Level: 5**

**Credit Value: 2**

**Guided Learning Hours: 20**

**Unit Purpose:** Trainees will learn to work in agile development environments, collaborate with diverse roles such as designers, developers, testers, and product managers, and deliver high-quality applications.

**Unit Objectives:**

#### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

*Assessment methods to be used include:*

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Assignment (ASS), etc.



## UNIT 03: TEAMWORK

LEARNING OBJECTIVE (LO)  The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type					Evidence Ref. Page No.			
<b>LO 1:</b> Know team roles and responsibilities	1.1	Identify key roles within a mobile app development team.									
		Explain functions of these roles collaborate to complete a project.									
	1.2	Define tasks assignment.									
	1.3	Know importance of cross-functional collaboration between development, design, and testing.									
	1.4	Define Agile Driven Methodologies.									
<b>LO 2:</b> Work collaboratively to contribute to mobile app development goals.	2.1	Explain sprint goals in an agile team.									
	2.2	Describe agile ceremonies such as stand-ups, sprint planning, and retrospectives, contributing to team discussions and decisions.									
	2.3	State tasks assignment on time while aligning personal goals with the team's development goals.									
<b>LO 3:</b> Communicate effectively with team members	3.1	Use communication tools (e.g., Slack, Microsoft Teams) to provide clear and timely updates on development progress, roadblocks, and changes.									
	3.2	Ensure that code changes, pull requests, and project documentation are properly communicated through tools like GitHub, JIRA, or Confluence to maintain team transparency.									
	3.3	Effectively communicate app development progress or technical details to non-technical stakeholders, such as product owners or clients.									
	3.4	Foster a collaborative and inclusive app development environment.									
	3.5	Lead and support teams through app development challenges									
	3.6	Adapt to evolving team structures and project requirements.									
<b>LO 4:</b> Evaluate and enhance team performance in app development projects.	4.1	Participate actively in sprint retrospectives									
	4.2	Review code or project deliverables collaboratively.									
	4.3	Use metrics such as sprint velocity, defect rates, or app performance metrics to evaluate the team's overall success in achieving project goals.									
	4.4	Use version control systems like <b>Git</b> to									

LEARNING OBJECTIVE (LO)  The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type					Evidence Ref. Page No.			
		collaborate on code with other developers.									
	4.5	Describe project management platforms like <b>JIRA</b> , <b>Trello</b> , or <b>Asana</b> to track tasks, manage workflows, and ensure everyone is aligned on sprint priorities.									
	4.6	Leverage cloud platforms such as <b>Firebase</b> , <b>AWS</b> , or <b>Google Cloud</b> to collaboratively build, test, and deploy mobile apps.									

## UNIT 4: ESSENTIALS OF DATA HANDLING

**Unit Reference Number: ICT/MOB/004/L5**

**Level: 5**

**Credit Value: 4**

**Guided Learning Hours: 40**

### **Unit Purpose:**

This unit aims to equip learner the competencies required to ensure that application data is effectively stored and available for use while application is running.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Assignment (ASS)
5. Recognition of Prior Learning (RPL)

## UNIT 4: ESSENTIALS OF DATA HANDLING

LEARNING OBJECTIVE (LO) The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
<b>LO 1:</b> Understand persistent and non-persistent storage techniques	1.1	Differentiate between volatile and non-volatile memory								
	1.2	Explain the concept of persistent data								
	1.3	Differentiate data types that can be transferred non-persistently								
	1.4	Explain the advantages of non-persistent data with regards to speed of access.								
	1.5	State the limitations of non-persistent data with regards to maximum data size and volatility.								
<b>LO 2:</b> Be able to Work with internal and external storage media	2.1	Differentiate between internal and external storage								
	2.2	Describe Data Storage on internal and External device								
	2.3	Store data to external storage (SD Card)								
	2.4	Download and store static resources (Files, Images, Audio, Video) in an organized and secure manner								
<b>LO 3:</b> Understand techniques on mobile SQLite storage	3.1	Explain Structured Query Language (SQL) for mobile application								
	3.2	Mention popular SQL databases used on mobile devices								
	3.3	State some advantages of SQLite database for more mobile devices								
	3.4	Develop mobile application that can perform Create, Read, Update, Delete (CRUD) on SQLite database								
	3.5	Develop a mobile app that backs up and restores SQLite table data								

	3.6	Develop a mobile app that migrates data to new SQL tables with different structure										
LO 4: Show ability to use cloud storage services	4.1	Identify different cloud storage services available for mobile platforms										
	4.2	Explain various benefits of cloud storage services.										
	4.3	Develop a mobile app that stores data on the cloud using a popular cloud service.										

## **UNIT 5: DEVELOPING BACKGROUND SERVICES**

**Unit Reference Number: ICT/MOB/005/L5**

**Level: 5**

**Credit Value: 4**

**Guided Learning Hours: 40**

### **Unit Purpose:**

This unit aims to equip learner with skills and knowledge understanding of background services and its equivalents.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

5. Direct Observation/oral questions (DO)
6. Question and Answer (QA)
7. Witness Testimony (WT)
8. Assignment (ASS), etc.

## UNIT 5: DEVELOPING BACKGROUND SERVICES

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.					
The learner will:		The learner can:											
LO 1: Use background services	1.1	Identify background service equivalents in popular mobile development platforms.											
	1.2	Explain differences between background service equivalents in popular mobile development platforms.											
	1.3	Perform long running tasks.											
	1.4	Perform repeated tasks.											
	1.5	Perform asynchronous tasks.											
LO 2: Be able to Demonstrate multi-threading	2.1	Differentiate between threads and processes.											
	2.2	Explain the advantages of multi-threading.											
	2.3	Explain thread life cycle.											
	2.4	Carry out specific task on thread on mobile application.											
	2.5	Demonstrate synchronize techniques threads and use thread priority.											
LO 3: Be able to show inter-process communications	3.1	Explain Inter Process Communication (IPC).											
	3.2	State IPC features of popular mobile development platforms.											
	3.3	Develop mobile application that utilizes IPC.											

## **UNIT 6: TESTING AND DEBUGGING MOBILE APPLICATIONS**

**Unit Reference Number: ICT/MOB/006/L5**

**Level: 5**

**Credit Value: 6**

**Guided Learning Hours: 60**

**Unit Purpose:** This unit aims to equip learner with skills and knowledge on mobile application testing.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

5. Direct Observation/oral questions (DO)
6. Question and Answer (QA)
7. Witness Testimony (WT)
8. Assignment (ASS), etc.



## UNIT 6: TESTING AND DEBUGGING MOBILE APPLICATIONS

LEARNING OBJECTIVE (LO) The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
<b>LO 1:</b>  Be able to Carry out mobile application testing.	1.1	Explain software testing.								
	1.2	State the different types of software testing.								
	1.3	Execute unit testing on a mobile app.								
	1.4	Execute functional/usability testing on a mobile app.								
	1.5	Execute performance testing on a mobile app.								
<b>LO 2:</b>  Demonstrate ability to prepare and use feedback forms	2.1	Explain Overview of Feedback in Mobile App testing								
	2.2	State some benefits of using a feedback form.								
	2.3	Explain how to structure questions correctly.								
	2.4	Prepare a feedback form for users to access the usability of a mobile app.								
	2.5	Explain how to assess feedback form responses to extract useful information.								
<b>LO 3:</b>  Demonstrate debugging abilities	3.1	Explain root cause of errors.								
	3.2	Use online development forums to find solutions to bugs.								
	3.3	Use IDE's log console to trace errors								

## UNIT 7: PUBLISHING MOBILE APPS ONLINE

**Unit Reference Number: ICT/MOB/007/L5**

**Level: 5**

**Credit Value: 4**

**Guided Learning Hours: 40**

**Unit Purpose:** This unit aims to equip learner with skills and knowledge of app store policies and the procedure for publishing completed mobile apps.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Assignment (ASS), etc.

## UNIT 7: PUBLISHING MOBILE APPS ONLINE

<b>LEARNING OBJECTIVE (LO)</b>  <b>The learner will:</b>		<b>PERFORMANCE CRITERIA</b>  <b>The learner can:</b>	<b>Evidence Type</b>	<b>Evidence Ref. Page No.</b>
<b>LO 1:</b> Demonstrate ability to bundle app for release on app stores	1.1	Explain the popular mobile App stores		
	1.2	State the application publishing procedure of popular App Stores (e.g. Google Play Store, Apple Store)		
	1.3	Ability to bundle application for release on a popular App Store		
<b>LO 2:</b> Be able to prepare app license and terms of use	2.1	State the benefits of including a license and/or terms of use in an application		
	2.2	Differentiate between popular open source licenses (e.g. MIT, GPL, Apache, BSD)		
	2.3	Develop draft license for a mobile app.		
	2.4	Draft terms of use document for a mobile app.		
<b>LO 3:</b> Demonstrate the ability to display adverts on the application	3.1	Explain the concept of advertising in mobile apps.		
	3.2	Differentiate between popular advertising services for mobile apps.		
	3.3	Integrate a popular advert service on a mobile application.		

## **UNIT 8: MONETIZATION OF MOBILE APPLICATIONS**

**Unit Reference Number: ICT/MOB/008/L5**

**Level: 5**

**Credit Value: 4**

**Guided Learning Hours: 40**

**Unit Purpose:** This unit aims to equip learner with skills and knowledge on steps involved in monetizing an app.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Assignment (ASS), etc.

## UNIT 8: MONETIZATION OF MOBILE APPLICATIONS

LEARNING OBJECTIVE (LO)  The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. No.	Page			
<b>LO 1:</b> Demonstrate the concept involved in monetization.	1.1	Explain the concept of monetization.									
	1.2	State the concept of subscribing in relation to monetization.									
	1.3	Explain the concept of In-app billing in relation to monetization.									
	1.4	Explain the concept of merchandising and product cataloguing.									
<b>LO 2:</b> Demonstrate the knowledge of the concept of payment gateway.	2.1	Explain how a payment gateway can be integrated in an app.									
	2.2	Describe various payment solutions like google checkout, paypal and others.									
	2.3	Write a mobile app to demonstrate how a payment gateway might be used.									
<b>LO 3:</b> Demonstrate <i>strategy</i> involved in selling goods within an app	3.1	Explain the concept in selling virtual goods within an app.									
	3.2	Explain the concept of selling physical goods within an app									
	3.3	Demonstrate the risk involved in selling within an app.									
	3.4	Demonstrate the process to retain profit with the sales in selling within an app.									

## UNIT 9: LICENSING AND INTEGRATION WITH LIBRARIES

**Unit Reference Number: ICT/MOB/009/L5**

**Level: 5**

**Credit Value: 6**

**Guided Learning Hours: 60**

**Unit Purpose:** This unit aims to equip learner with knowledge and skills on how to licensed mobile application development and integrate libraries on mobile application development.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Assignment (ASS), etc.

## UNIT 9: LICENSING AND INTEGRATION WITH LIBRARIES

LEARNING OBJECTIVE (LO)  The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type					Evidence Ref. Page No.				
<b>LO 1:</b> Understand concept of APIs	1.1	Explain the concept of APIs.										
	1.2	State the benefits of APIs.										
	1.3	Identify and differentiate between 1st party and 3rd party APIs.										
	1.4	Develop mobile app which uses X (Twitter API).										
<b>LO 2:</b> Understand concept of Licensing	1.1	Explain the concept of Licensing in mobile apps.										
	1.2	Explain the benefits of licensing										
	1.3	Explain the challenges involved in licensing.										
	1.4	Identify ways to gain traction in the app store										
	1.5	Explain the process involved in licensing a mobile product to another company										
<b>LO 3:</b> Demonstrate the process of integration with major API.	1.1	Resources for mobile development with YouTube.										
	1.2	Understanding mobile payment libraries										
	1.3	Demonstrate the process involved in developing a mobile library application										

## **UNIT 10: ARCHITECTURAL PATTERNS IN MOBILE DEVELOPMENT**

**Unit Reference Number: ICT/MOB/010/L5**

**Level: 5**

**Credit Value: 4**

**Guided Learning Hours: 40**

**Unit Purpose:** This unit aims to equip learner with skills and knowledge involved in implementing various architecture patterns in an app., also discuss separation

of concerns.

**Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Assignment (ASS), etc.



## UNIT 10: ARCHITECTURAL PATTERNS IN MOBILE DEVELOPMENT

LEARNING OBJECTIVE (LO)  The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type					Evidence Ref. Page No.			
<b>LO 1:</b> Understand architectural patterns	1.1	Explain architectural patterns.									
	1.2	State examples of architectural patterns.									
	1.3	Identify and differentiate between the various architectural patterns.									
<b>LO 2:</b> Understand importance of architectural patterns	1.1	Explain the reason for various architectural patterns									
	1.2	Explain the importance of each architectural pattern									
	1.3	State the problem that architectural patterns solve.									
<b>LO 3:</b> Implement architectural patterns in an app.	1.1	Describe steps involved in setting up an architecture in an app.									
	1.2	Demonstrate knowledge of implementing an architecture pattern.									
	1.3	Implement a known architectural pattern in a mobile application									

## **UNIT 11: REPOSITORIES IN MOBILE APPLICATION DEVELOPMENT**

**Unit Reference Number: ICT/MOB/011/L5**

**Level: 5**

**Credit Value: 6**

**Guided Learning Hours: 60**

**Unit Purpose:** This unit aims to equip learner with knowledge and skills to effectively use repositories as it relates to mobile application development.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO).
2. Question and Answer (QA).
3. Work Products (WP).
4. Reflective Journal (RF).
5. Assignment (ASS).

## UNIT 11: REPOSITORIES IN MOBILE APPLICATION DEVELOPMENT

LEARNING OBJECTIVE (LO)  The learner will:		PERFORMANCE CRITERIA  The learner can:	Evidence Type					Evidence Ref. Page No.			
LO 1: Basics of version control.	1.1	Explain the concept of version control.									
	1.2	State the benefits of version control.									
	1.3	Identify various remote ways to access Mobile Applications.									
LO 2: Be able to Manage repositories in Mobile Application	1.1	Explain the concept of code repository service.									
	1.2	Identify popular repository service.									
	1.3	Implement code repository setup.									
	1.4	Carry out connection to a code repository service.									
	1.5	Show ways of contributing to SDK development using a repository service									
LO 3: Understand version control integration.	3.1	Describe how to import version control in the mobile platform.									
	3.2	Explain the process of viewing a repository log.									
	3.3	Explain how to commit, pull and push code changes to repositories									
	3.4	Implement version control integration within a mobile application platform.									

## **UNIT 12: PROJECT MANAGEMENT IN MOBILE APPLICATION**

**Unit Reference Number: ICT/MOB/4/012/L5**

**Level: 5**

**Credit Value: 4**

**Guided Learning Hours: 40**

**Unit Purpose:** This unit aims to equip learners with Knowledge of project management with respect to mobile application.

### **Prerequisite(s)**

Level 3

### **Unit assessment requirements/evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation/oral questions (DO).
2. Question and Answer (QA).
3. Witness Testimony (WT).
4. Assignment (ASS).
5. Reflective Journal (RF).

## UNIT 12: PROJECT MANAGEMENT IN MOBILE APPLICATION

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
			The learner can:								
<b>LO 1:</b> Understand project management	1.1	Define project management.									
	1.2	State advantages of project management									
	1.3	Explain the phases in project management									
<b>LO 2:</b> Understand requirement gathering and analysis	2.1	Explain the concept of requirement gathering and analysis									
	2.2	Mention 5 factors to Consider while carrying out analysis									
	2.3	Mention 5 channels of information gathering									
	2.4	Develop project specification document stating project milestones and timeline									
<b>LO 3:</b> Develop project plan in mobile apps development	3.1	Explain the concept of project plan									
	3.2	Discuss the importance of a project plan									
	3.3	Explain the concept of activities, critical activities, scheduling and timeline.									
	3.4	Develop gantt chart using project management tool									
	3.5	Generate project plan for a simple app showing activities, critical activities and corresponding timeline.									
<b>LO 4:</b> Understanding project Design	4.1	Explain the concept of project design									
	4.2	List the key members of a design team									
	4.3	Show use of mock-ups, storyboard or wireframes in a simple app idea.									
<b>LO 5:</b> Understand Product Development	3.1	Explain the concept of prototyping.									
	3.2	Explain modular development in the context of an app having multiple features.									
	3.3	Perform module integration.									
<b>LO 6:</b> Understand of Testing	6.1	Explain the importance of testing									
	6.2	Explain the different types of testing and demonstrate when they are required in the development process									
	6.3	Integrate tests as determined by the nature of the application									
<b>LO 7:</b> Understanding	7.1	Explain the concept of maintenance.									
	7.2	Enumerate factors that can necessitate upgrade									

Project maintenance and upgrade		and maintenance operation.												
	7.3	List maintenance operations that can be carried out on a mobile app												
	7.4	Enumerate upgrade operations that can be carried out on a mobile app.												

## PARTICIPANT FOR CRITIQUE WORKSHOP

S/N	Full Name	Organization	Address	Email	Telephone
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