Instruction Sheet for the Candidate

Qualification	Back-end Developer **(Mobile App, Web and Game Development)**
Competency Standard	Implement Basic Programming Skills to apply Server-Side Architecture
Purpose of Assessment	Formative Assessment
Candidate Details	Name_____ Registration/Roll Number_____
Guidance for Candidate	**To meet this standard, you are required to complete the following within 03 Hrs. time frame (for practical demonstration & assessment):** • Identify Architectural Components • Identify Relationships among Architectural Components • Develop APIs for Architectural Components • Implement Architectural Components • Test Architectural Components
Time: 03 Hrs.	During a practical assessment, under observation by an assessor, you are required to:

Minimum Evidence Required	**Identify Architectural Components**
	  1. Search well known architectural components.
	  2. Identify the components relevant to web applications
	Identify Relationships among Architectural Components
	  1. Analyze the requirements specification
	  2. Draw architectural diagram elaborating dependency of components on other components
	Develop APIs for Architectural Components
	  1. Develop the classes and interfaces hierarchy
	  2. Identify methods associated with every class
	  3. Identify parameters and return types for all methods
	Implement Architectural Components
	  1. Code the classes decided in developed APIs
	  2. Implement methods and interfaces
	Test Architectural Components
	  1. Design unit tests for architectural components
	  2. Execute unit tests
	  3. Design Integration tests for the architectural components
	  4. Execute Integration tests
	  5. Fix the bugs identified during testing

Self-Assessment Checklist

Candidate Name	
Registration No.	
Qualification	Back-end Developer **(Mobile App, Web and Game Development)**
Competency Standard	Implement Basic Programming Skills to apply Server-Side Architecture
Purpose of Assessment	Formative Assessment
Assessment Task	• Identify Architectural Components • Identify Relationships among Architectural Components • Develop APIs for Architectural Components • Implement Architectural Components • Test Architectural Components

I can………………

Performance Criteria	Yes	No
1. Search well known architectural components.	☐	☐

2. Identify the components relevant to web applications	☐	☐
3. Analyze the requirements specification	☐	☐
4. Draw architectural diagram elaborating dependency of components on other components	☐	☐
5. Develop the classes and interfaces hierarchy	☐	☐
6. Identify methods associated with every class	☐	☐
7. Identify parameters and return types for all methods	☐	☐
8. Code the classes decided in developed APIs	☐	☐
9. Implement methods and interfaces	☐	☐
10. Design unit tests for architectural components	☐	☐
11. Execute unit tests	☐	☐
12. Design Integration tests for the architectural components	☐	☐
13. Execute Integration tests	☐	☐
14. Fix the bugs identified during testing	☐	☐

Candidate's Signature_____ Assessor's Signature_____

Date: _____

Assessors Judgment Guide

Qualification	Back-end Developer **(Mobile App, Web and Game Development)**
Competency Standard	Implement Basic Programming Skills to apply Server-Side Architecture
Purpose of Assessment	Formative Assessment
Candidate Details	Name: _____ Registration/Roll Number: _____ Signature: _____

Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐
	Name of the Assessor_____
	Assessor's code: _____
	Signature: _____

Assessment Summary (to be filled by the assessor)								
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment		✓					
Other Requirement							

Observation Checklist

Assessment Task	• Identify Architectural Components • Identify Relationships among Architectural Components • Develop APIs for Architectural Components • Implement Architectural Components • Test Architectural Components			
During the practical assessment, candidate demonstrated the following:		**Yes**	**No**	**Remarks**
1.	Search well known architectural components.			
2.	Identify the components relevant to web applications			
3.	Analyze the requirements specification			
4.	Draw architectural diagram elaborating dependency of components on other components			
5.	Develop the classes and interfaces hierarchy			
6.	Identify methods associated with every class			
7.	Identify parameters and return types for all methods			
8.	Code the classes decided in developed APIs			
9.	Implement methods and interfaces			
10.	Design unit tests for architectural components			
11.	Execute unit tests			
12.	Design Integration tests for the architectural components			
13.	Execute Integration tests			
14.	Fix the bugs identified during testing			

Competent ☐	Not Yet Competent ☐

Knowledge Assessment

Qualification	Backend Developer **(Mobile, Web and Game Development)**
Competency Standard	Implement Basic Programming Skills to apply Server-Side Architecture
Purpose of Assessment	Formative Assessment
Candidate Details	Name: _____ Registration/Roll Number: _____ Candidate Signature: _____
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	**Satisfactory**	**Not Satisfactory**
1. Define the term 'Architecture'.		
2. What does API stand for?		
3. Name any two architectures for a web application.		

			7

Feedback to the Candidate

Candidate's Signature_____ **Assessor's Signature** _____