

**“ON-LINE SKILL TEST IN EVERY SECTOR FOR
EVERY LEVEL OF SKILL”**

A

Project Report

submitted

in partial fulfillment

for the award of the Degree of

Bachelor of Technology

in Department of Information Technology



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Session 2024-2025

**Swami Keshvanand Institute of Technology,
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CERTIFICATE

This is to certify that Ms.Diksha Aswania student of B.Tech(Information Technology)VII semester has submitted her Project Report entitled "On-line skill test in every sector for every level of skill" under my guidance.

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CERTIFICATE

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DECLARATION

We hereby declare that the report of the project entitled "On-line skill test in every sector for every level of skill" is a record of an original work done by us at Swami Keshvanand Institute of Technology, Management and Gramothan, Jaipur under the mentorship of "Dr. Vipin Jain"(Dept. of Information Technology) and coordination of "Dr. Priyanka Yadav" (Dept.of Information Technology). This project report has been submitted as the proof of original work for the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology (B.Tech) in the Department of Information Technology. It has not been submitted anywhere else, under any other program to the best of our knowledge and belief.

Team Members

(Diksha Aswani, 21ESKIT043)

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Signature

Acknowledgement

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Chapter 1

Introduction

1.1 Problem Statement and Objective

The project aims to address the growing need for accessible and reliable skill assessment by developing an online platform that provides standardized skill tests across various sectors and proficiency levels. In today's dynamic job market, traditional methods of evaluating skills are often inadequate, lacking scalability, consistency, and real-time feedback. This online system seeks to bridge that gap by offering individuals a way to assess and validate their competencies through customized tests, while also providing employers and institutions with a trustworthy tool for recruitment, training, and upskilling. The ultimate objective is to create a scalable, user-friendly, and sector-inclusive solution that enhances workforce development and ensures accurate skill recognition at every level.

1.2 Literature Survey /Market Survey/Investigation and Analysis

Recent studies highlight a global shift toward skill-based assessments, with a growing need for platforms that evaluate practical competencies across various sectors. Existing tools like LinkedIn Assessments and HackerRank mainly target IT and soft skills, leaving a gap for multi-sector, multi-level solutions. A market survey involving students, job seekers, and employers revealed that 80 percent found current platforms inadequate for their specific skill needs. Employers seek standardized, real-time assessments for better hiring, while educators need tools to track skill progress. This analysis confirms a strong demand for an inclusive, scalable, and adaptive online skill testing system suitable for all industries and skill levels.

1.3 Introduction to Project

]In the modern, skill-driven economy, the ability to accurately assess and validate practical knowledge is more critical than ever. With rapid technological advancement and evolving job roles, traditional methods of evaluation such as degrees and certifications often fail to reflect an individual's true competencies. This project aims to develop an online platform that offers comprehensive skill assessments across various sectors—technical, non-technical, and vocational—and at all proficiency levels, from beginner to expert. By providing accessible, adaptive, and standardized testing, the platform will help individuals identify their strengths, improve their skills, and gain recognition, while enabling employers and educators to make data-driven decisions for recruitment, training, and development.

1.4 Proposed Logic / Algorithm / Business Plan / Solution / De- vice

The proposed system is an online platform designed to provide skill assessments across multiple sectors and proficiency levels. It uses an adaptive algorithm that selects questions based on the user's chosen field and real-time performance, allowing for personalized difficulty progression. A categorized question bank supports this logic, ensuring that assessments remain relevant and balanced. The platform automatically scores responses and provides immediate feedback along with skill analytics. From a business perspective, it will follow a freemium model—basic tests and results are free, while advanced features like certification, performance tracking, and employer dashboards are available through subscriptions. Additional revenue will come from institutional partnerships and advertising. The platform will be accessible via web and mobile applications, and may also be deployed on offline-enabled kiosks to reach users in rural or low-connectivity areas, ensuring broad and inclusive accessibility.

1.5 Scope of the Project

]The proposed system is an online platform designed to provide skill assessments across multiple sectors and proficiency levels. It uses an adaptive algorithm that selects questions based on the user's chosen field and real-time performance, allowing for personalized difficulty progression. A categorized question bank supports this logic, ensuring that assessments remain relevant and balanced. The platform automatically scores responses and provides immediate feedback along with skill analytics. From a business perspective, it will follow a freemium model—basic tests and results are free, while advanced features like certification, performance tracking, and employer dashboards are available through subscriptions. Additional revenue will come from institutional partnerships and advertising. The platform will be accessible via web and mobile applications, and may also be deployed on offline-enabled kiosks to reach users in rural or low-connectivity areas, ensuring broad and inclusive accessibility.

Chapter 2

Software Requirement Specification

2.1 Overall Description

This project aims to develop a comprehensive online platform that facilitates skill testing for users across various sectors and proficiency levels. The system is designed to be user-friendly, scalable, and accessible via both web and mobile applications. Users can register on the platform, choose their domain of interest, and take skill assessments that are tailored to their selected sector and expertise level—ranging from beginner to expert. The platform features an adaptive testing engine that dynamically adjusts question difficulty based on user performance, ensuring a personalized and accurate assessment experience. A centralized question bank, categorized by industry and difficulty, supports the test generation logic. The system also provides instant scoring, feedback, performance analysis, and certification upon completion. It will include administrative tools for managing users, tests, and analytics, along with support for institutions and companies to conduct bulk testing or recruitment assessments. The solution ensures broad accessibility, including options for low-connectivity areas, and supports integration with job portals and learning platforms for extended utility.

2.1.1 Product Perspective

2.1.1.1 System Interfaces

The System Interface of the Online Skill Test Platform consists of various components that work together to ensure smooth functionality. The User Interface (UI) allows individuals to register, take tests, and view results. The Admin Interface enables system management,

including user and content management. The Employer Interface supports recruitment and performance tracking for employers and institutions. The platform also integrates with External Systems like LMS and job portals for sharing test results and certifications. Additionally, the Payment Gateway Interface handles secure transactions for premium features. These interfaces collectively ensure seamless interaction and functionality across the platform.

2.1.1.2 User Interfaces

The User Interface (UI) of the Online Skill Test Platform is designed to be intuitive, user-friendly, and accessible across web and mobile devices. Upon registration or login, users can easily browse and select tests based on their chosen sector and proficiency level. The UI facilitates smooth navigation through the test, with clear instructions and progress indicators. After completing a test, users receive instant feedback on their performance, including scores and detailed insights. The platform also provides a dashboard where users can track their progress, view past test results, and identify areas for improvement. Additionally, users can obtain digital certificates for completed tests, which can be shared on professional networks. The UI emphasizes simplicity and accessibility, ensuring a seamless experience for users at all skill levels.

2.1.1.3 Hardware Interfaces

The Hardware Interfaces of the Online Skill Test Platform include the physical devices that enable users to interact with the system and

ensure smooth operation. Primarily, the platform is accessed through user devices such as PCs, laptops, and mobile phones, which communicate with the platform's software via browsers or mobile apps. These devices ensure compatibility across various operating systems (Windows, macOS, Android, iOS) and provide a responsive experience on different screen sizes. Additionally, for areas with limited internet connectivity, the platform can be deployed on offline kiosks or low-bandwidth devices, allowing users to take tests without a constant internet connection, with data syncing once connected. The backend relies on server infrastructure to handle user data, test content, and computational tasks like scoring and feedback. In some cases, external hardware, such as printers for physical certificates or barcode scanners for user identification, may be used. These hardware interfaces ensure the platform's accessibility, scalability, and efficiency for all users, regardless of location or device availability.

2.1.1.4 Software Interfaces

The Software Interfaces of the Online Skill Test Platform involve interactions between the platform's internal systems and external software tools to ensure seamless functionality. The User Interface (UI) serves as the frontend, allowing users to access tests and receive feedback, while communicating with the backend through APIs to fetch data and submit responses. The Backend System and Database manage user profiles, test data, and question banks, processing inputs and generating dynamic tests. The platform integrates with payment gate-

ways to securely process transactions for premium services, updating user access levels accordingly. Additionally, the platform connects with external systems like Learning Management Systems (LMS) and job portals through APIs, enabling users to share test results and certifications. Authentication and authorization protocols such as OAuth or JWT are used to ensure secure user access, while analytics and reporting tools are integrated to provide insights into user performance and platform activity. These software interfaces work together to enhance the platform's usability, security, and overall performance.

2.1.5 Communications Interfaces

The Communication Interfaces of the Online Skill Test Platform define how the system exchanges data between its components and with external systems. Communication between the user interface (UI) and the backend server occurs through HTTP/HTTPS requests, using RESTful APIs to submit test answers, retrieve data, and display results. The platform also communicates with external systems like Learning Management Systems (LMS) and job portals via APIs, enabling the sharing of test results and certifications with third-party platforms securely. For payment processing, the platform uses secure communication protocols with payment gateways, ensuring safe transactions for premium services. Additionally, user authentication is managed through secure communication interfaces with identity providers, employing protocols like OAuth or JWT for secure login and access control. The platform may also use email servers or push

notification services to send alerts, reminders, and test results to users. These communication interfaces ensure secure, seamless, and real-time data exchange, improving the platform's functionality and user experience.

2.1.1.6 Memory Constraints

Memory Constraints in the Online Skill Test Platform refer to the limitations on the available memory for storing and processing large amounts of data, which can affect performance, especially as the platform scales. Managing user data, such as test responses, scores, and performance analytics, requires careful memory management to ensure that the system doesn't become overloaded, especially with a growing number of users. Efficient management of the question bank, including fast retrieval and storage of questions for different sectors and skill levels, also plays a crucial role. Additionally, providing real-time feedback and generating performance analytics demands sufficient memory for fast data processing. If multimedia content like images, videos, or audio is used, it can consume significant memory, requiring optimized data handling or the use of content delivery networks (CDNs). As the user base grows, the platform must scale effectively, utilizing cloud storage, load balancing, and distributed memory systems to ensure smooth operation without memory overload. Optimizing memory usage through efficient storage practices and scalable infrastructure is essential to maintain high performance and responsiveness.

2.1.1.7 Operations

The Operations of the Online Skill Test Platform encompass the critical tasks required to ensure the platform runs smoothly, delivers services efficiently, and maintains a seamless user experience. Key operations include user management, which involves handling registration, authentication, and profile management, ensuring users are granted appropriate access to tests based on their skill levels. Test management includes the creation, categorization, and distribution of skill assessments, ensuring that tests are updated regularly and are dynamically generated based on user preferences. The scoring and feedback process involves evaluating user responses, calculating scores, and providing real-time performance analytics, ensuring accurate and quick results. Data management ensures secure storage of user data and test results, maintaining data integrity and privacy compliance. Payment processing supports secure transactions for premium features, while performance monitoring tracks the system's health and user behavior to optimize platform functionality. The platform also integrates with external systems like Learning Management Systems (LMS) and job portals to share results and certifications. Finally, security and privacy operations ensure the platform is protected against threats and complies with data protection regulations. These operations work together to maintain a reliable, secure, and user-friendly platform.

2.1.1.8 Project Functions

The Project Functions of the Online Skill Test Platform encompass a range of essential tasks designed to provide a seamless experience for users, employers, and administrators. Key functions include user registration and authentication, allowing secure account creation and login, with role-based access for individuals, employers, and admins. The platform supports test creation and management, enabling admins and employers to create, organize, and update skill assessments with various parameters such as time limits and question randomization. Skill test execution ensures that tests are dynamically generated based on user profiles and skill levels. Once completed, real-time scoring and feedback are provided, delivering immediate results and personalized insights to users. The platform also generates results and certifications, allowing users to receive and share validated credentials. Admin and employer dashboards allow for user management, performance tracking, and content updates. Payment and subscription management supports secure transactions for premium services, while analytics and reporting tools help monitor user progress and platform performance. Additionally, the platform integrates with external systems like Learning Management Systems (LMS) and job portals for seamless data sharing. Finally, security and data privacy functions ensure the safe storage and transmission of user information, adhering to industry standards and privacy regulations. These functions work together to create a comprehensive, efficient, and secure skill assessment platform.

2.1.1.9 User Characteristics

The Online Skill Test Platform is characterized by several key attributes that ensure its effectiveness, reliability, and user-friendliness. The platform is user-friendly, designed with an intuitive interface that is easy to navigate for users of all skill levels, ensuring a seamless experience across both desktop and mobile devices. It is highly scalable, capable of handling increasing user numbers, more tests, and additional data without compromising performance. A key feature is its real-time feedback, providing instant results and detailed performance analytics to users after completing their tests. The platform is secure and reliable, employing encryption, secure login protocols, and regular security updates to protect user data and comply with privacy standards. It offers customizable testing, allowing employers and administrators to create tailored assessments for various industries or job roles. The platform also features comprehensive analytics and reporting, enabling users to track their progress and administrators to generate detailed performance reports. Its integration capabilities allow smooth data exchange with external systems like Learning Management Systems (LMS) and job portals. The platform supports multi-media content, making assessments more engaging through images, videos, and audio. It is also accessible, with features like screen readers and high-contrast mode, ensuring inclusivity. Lastly, the platform offers a cost-effective solution with both free and premium services, making it a flexible tool for individual users, educational institutions, and businesses. These characteristics combine to create a powerful,

secure, and user-centric skill assessment platform.

2.1.1.10 Constraints

The constraints of the Online Skill Test Platform include several factors that could impact its performance and scalability. One key limitation is internet connectivity, as users rely on stable and fast connections to access and complete tests. Additionally, the platform faces data storage and memory constraints, especially as user data and test results grow, which requires efficient data management and scalable storage solutions. The platform must also address server load and scalability issues, ensuring that it can handle high traffic volumes without slow downs or crashes. While security and privacy are top priorities, implementing strong encryption and complying with privacy regulations can increase system complexity and resource demands. Multimedia content support adds another layer of complexity, requiring significant storage and bandwidth for videos, images, and audio. Device compatibility issues may arise, particularly with older devices or browsers, which could affect user experience. Furthermore, the platform needs to consider localization and language support to cater to a global audience, which adds to the development workload. Lastly, cost limitations can restrict the ability to continuously improve the platform or expand its features. Managing these constraints is essential to maintaining an efficient, secure, and user-friendly service.

2.1.1.11 Assumption and Dependencies

The assumptions and dependencies of the Online Skill Test Platform are key factors for its successful operation. It is assumed that users will have access to a stable internet connection, basic technological competence, and devices that meet the platform's system requirements. Additionally, the platform assumes that users will provide accurate personal and skill information for tailored assessments, and that there will be sufficient, up-to-date test content available. Security and privacy compliance is also a core assumption, ensuring that all stakeholders follow the outlined regulations. The platform relies heavily on external dependencies, such as third-party services for payment processing, email notifications, and integrations with systems like Learning Management Systems (LMS). It also depends on cloud storage and hosting providers to handle large volumes of data and ensure scalability. Additionally, the platform's functionality is dependent on the compatibility of user devices and browsers, as well as regular system updates and maintenance. Furthermore, adherence to data protection laws and other regional legal frameworks is critical to safeguard user information and maintain privacy standards. Managing these assumptions and dependencies effectively is crucial for the platform to function seamlessly and meet the needs of its users.

Chapter 3

System Design Specification

3.1 System Architecture

The System Architecture of the Online Skill Test Platform is built to provide scalability, security, and efficient performance. It comprises several layers, starting with the client layer, where users interact with the platform via a web or mobile interface. This layer communicates with the web server, which routes user requests to the application layer that handles core logic, such as test generation, scoring, and feedback. Data is stored in the database layer, which manages user profiles, test results, and performance data. Cloud infrastructure is used for storage and to ensure the platform can scale as user demand increases. The security layer ensures encryption and protects user data through secure protocols and compliance with privacy regulations. The platform integrates with external services like payment gateways for premium features and LMS for data sharing. Analytics and reporting modules allow real-time monitoring and insights into user performance. Lastly, the platform includes backup and disaster recovery systems to ensure data availability and continuity. This architecture ensures the platform is secure, reliable, and capable of handling growing traffic and data.

3.2 Module Decomposition Description

The Online Skill Test Platform is structured around several key modules, each responsible for distinct functionalities that contribute to the system's overall performance. The User Management Module handles user registration, authentication, and profile management. The Test Management Module allows the creation, categorization, and updating of skill tests, while the Test Execution Module ensures a smooth user experience during test-taking, including tracking time and submitting answers. The Scoring and Feedback Module automatically evaluates user responses, provides scores, and generates feedback. The Result and Certification Module issues certificates and stores user results. Admins can manage users and platform content through the Admin Dashboard Module, while employers can assess candidates through the Employer Dashboard Module. The Payment and Subscription Module processes premium subscriptions and transactions. The Analytics and Reporting Module generates insights into user activity and performance, and the Security Module ensures data protection through encryption and secure protocols. The External Integration Module facilitates third-party integrations, such as with Learning Management Systems or job portals, while the Backup and Recovery Module ensures data integrity with regular backups and disaster recovery protocols. This modular approach enables easy scalability, secure operations, and a seamless user experience.

3.3 High Level Design Diagrams

3.3.1 Use Case Diagram

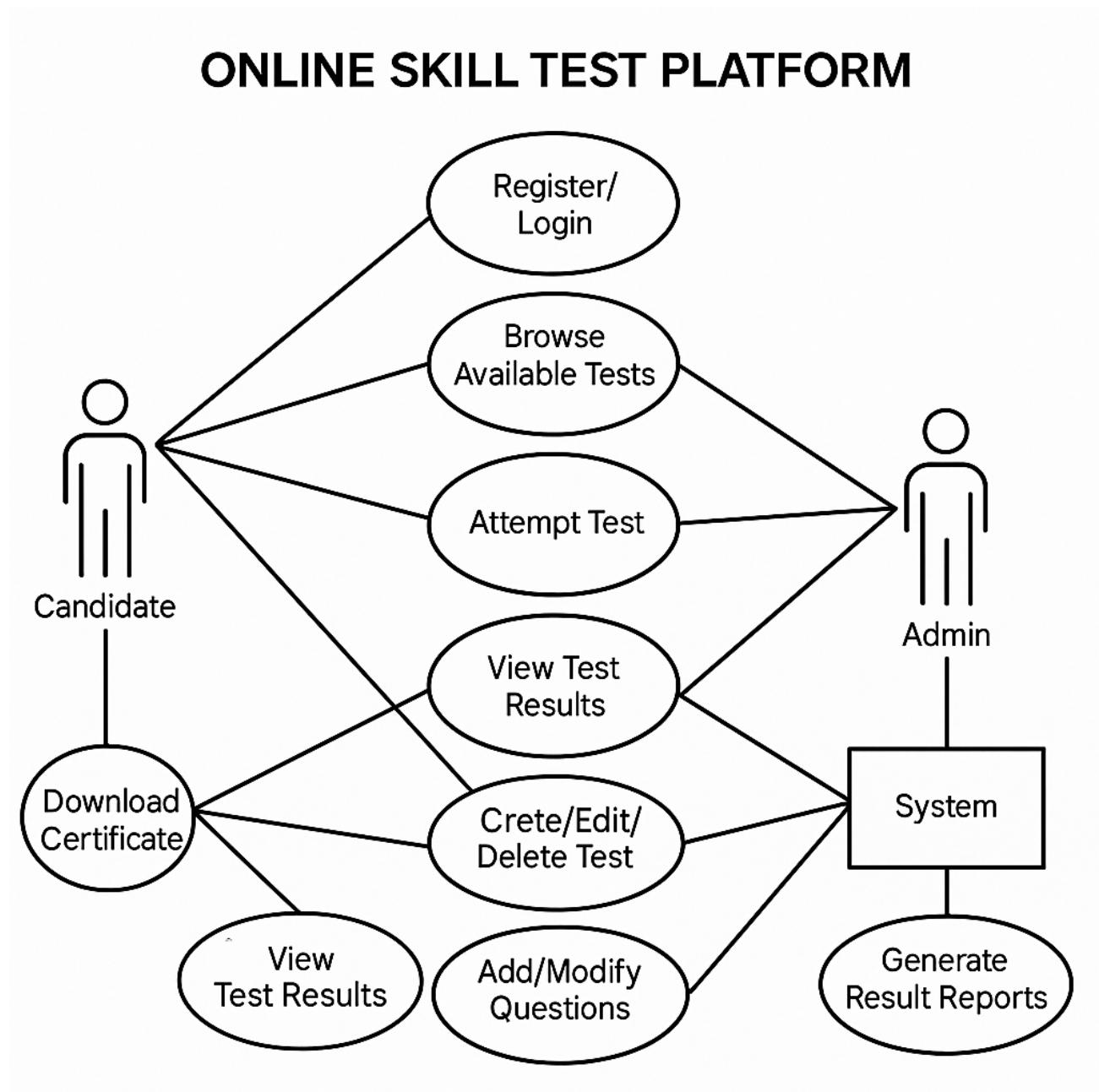


Figure 3.1: Use Case Diagram

3.3.2 Activity Diagram

Online Skill Test

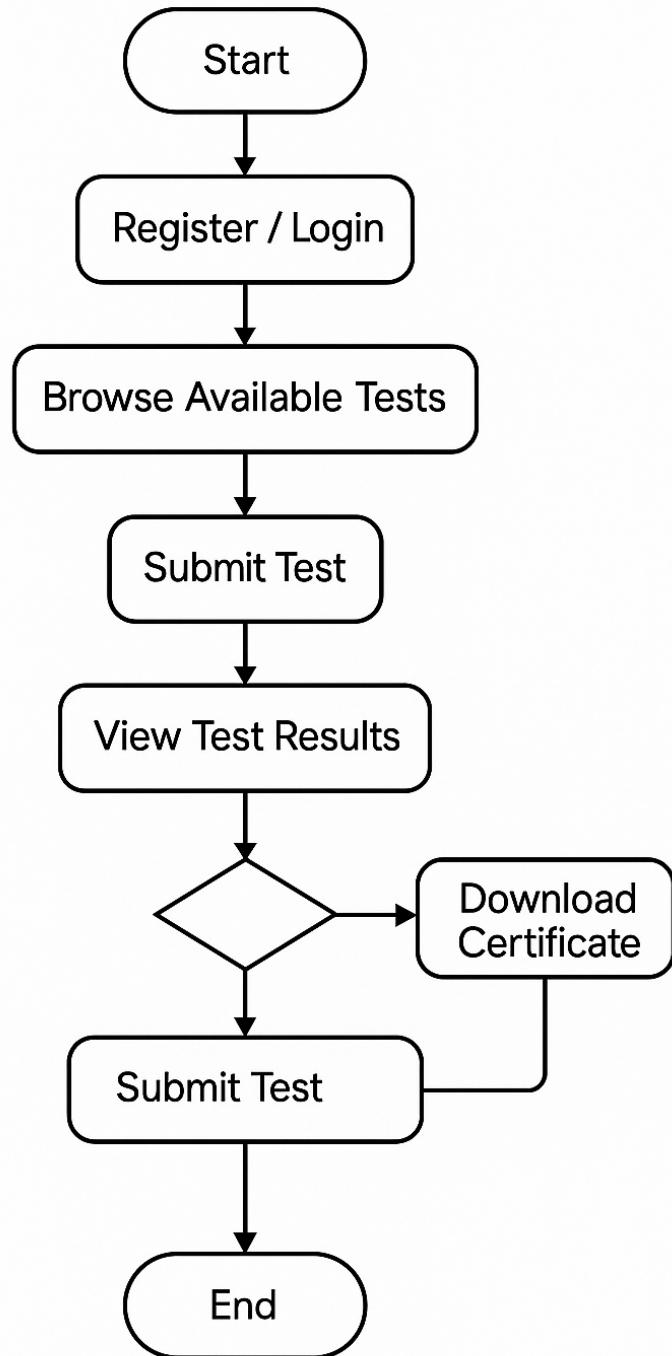


Figure 3.2: Activity Diagram

3.3.3 Data-Flow Diagram

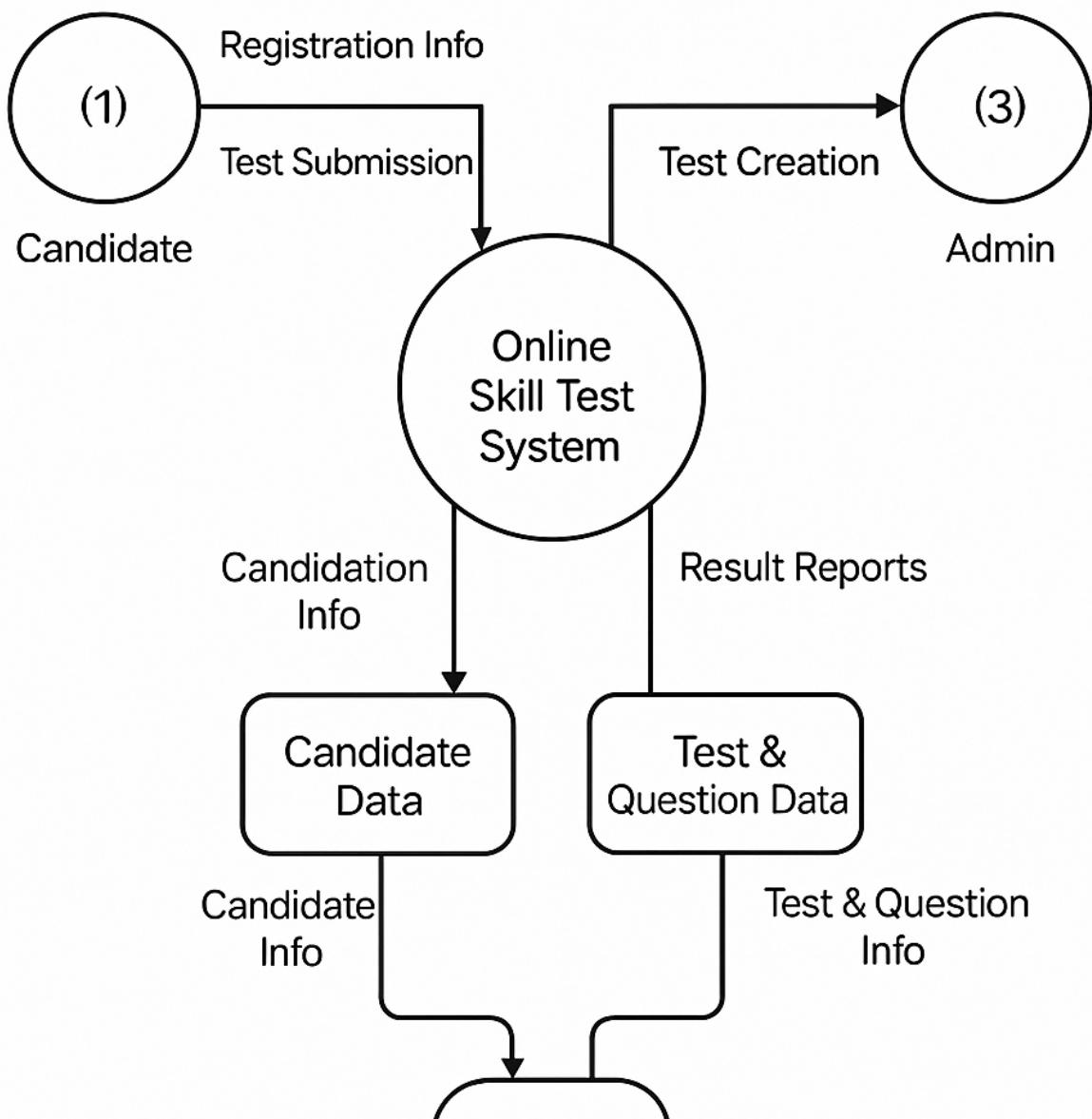


Figure 3.3: Data-Flow Diagram

3.3.4 Class Diagram

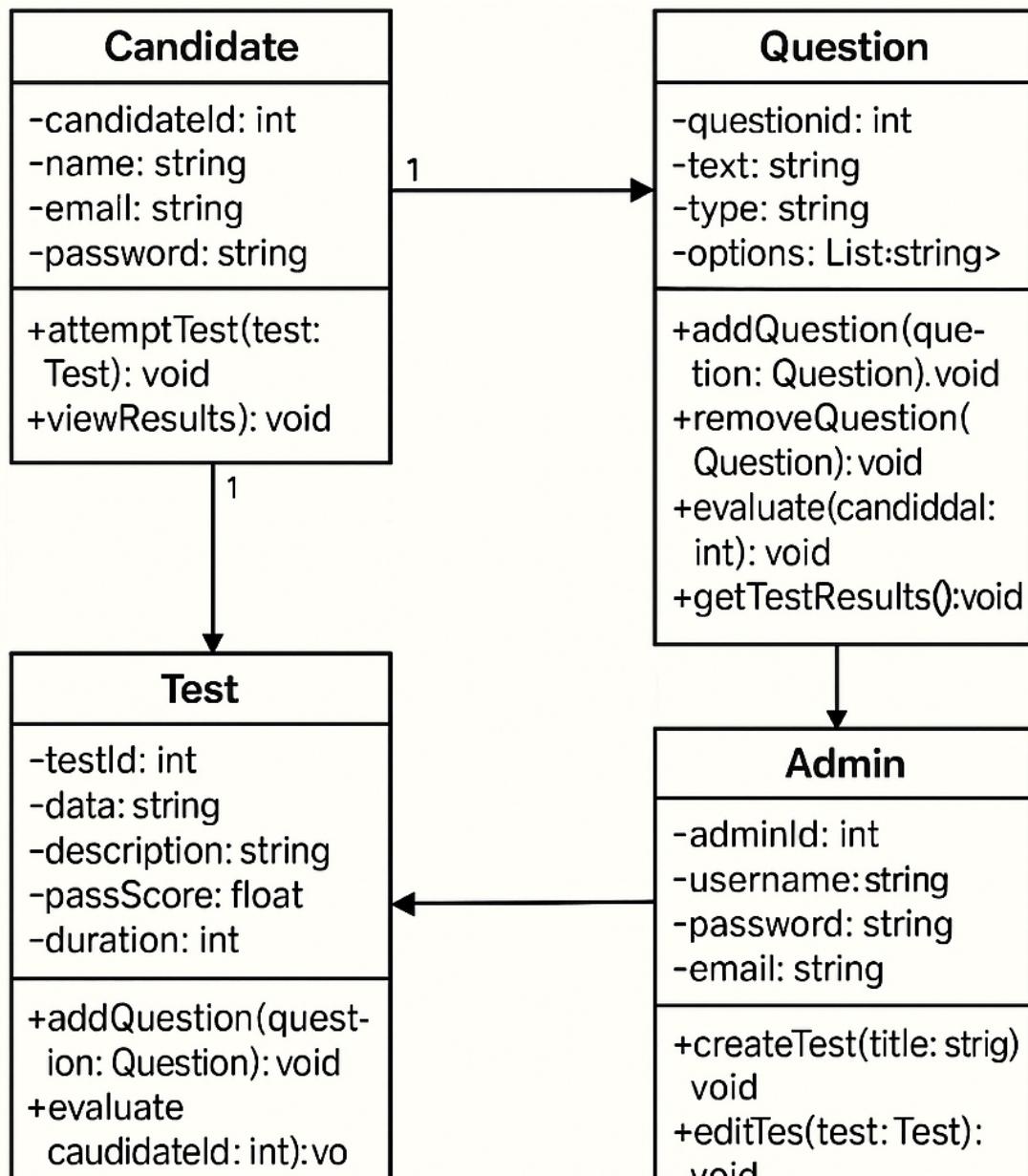


Figure 3.4: Class Diagram

Chapter 4

Methodology and Team

4.1 Introduction to Waterfall Framework

The Waterfall Model is a traditional software development methodology that follows a linear and sequential approach, where each phase must be completed before the next one begins. It is best suited for projects with well-defined and unchanging requirements. For an online skill test platform, which is designed to allow users to register, take timed assessments, and receive automated results, the Waterfall Model offers a clear and structured path from start to finish. The development process begins with a thorough requirement analysis, where all the features and functions of the platform are documented. This is followed by the system design phase, where the architecture, user interfaces, and database structures are planned. Once the design is finalized, the implementation phase begins, involving the actual coding of modules like test creation, user dashboards, and result generation. After development, the platform undergoes rigorous testing to ensure it functions correctly and meets all requirements. Upon successful testing, the platform is deployed for real users. Finally, the maintenance phase addresses any issues that arise post-deployment. Using the Waterfall Model in this project ensures that each stage is carefully planned and executed, providing a reliable and well-documented de-

velopment process.

Waterfall Model

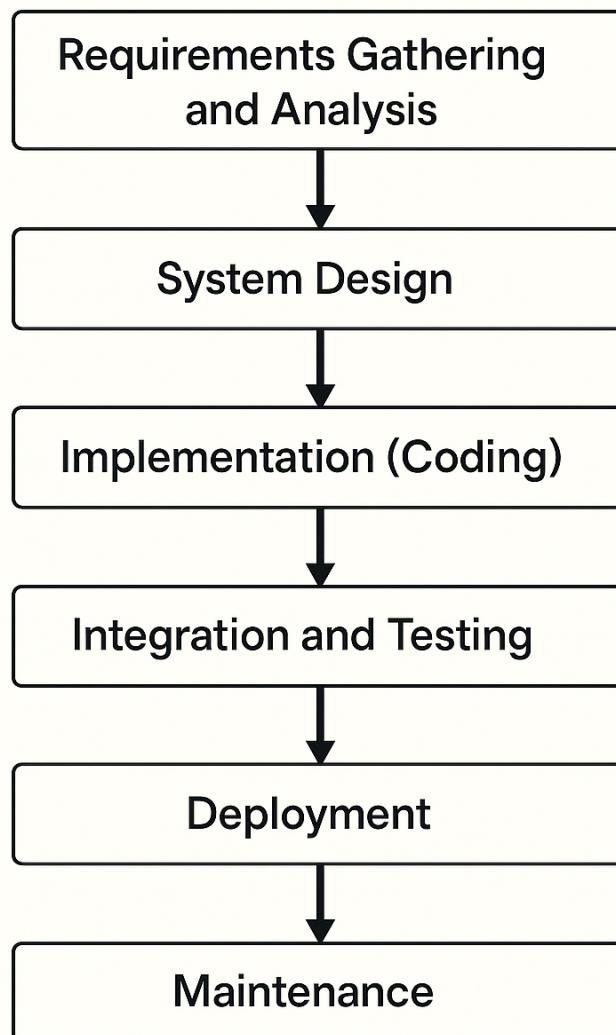


Figure 4.1: WaterFall model

The sequential phases in Waterfall model are-

- 1. Requirement Gathering and analysis:** All functionalities—such as user registration, test creation, timer integration, result generation, and admin controls—are gathered and documented.

- 2. System Design:** Based on the requirements, system architecture is designed, including database schema, user interface mockups, and system workflow diagrams.
- 3. Implementation:** Developers write the code for different modules like the quiz engine, user dashboard, and admin panel.
- 4. Integration and Testing:** The system is tested for bugs, performance issues, and to ensure it meets all requirements.
- 5. Deployment of system:** The completed platform is launched for use by real users.
- 6. Maintenance:** Post-deployment, any issues are resolved, and updates are applied as needed.

All these phases are cascaded to each other in which progress is seen as flowing steadily downwards (like a waterfall) through the phases. The next phase is started only after the defined set of goals are achieved for previous phase and it is signed off, so the name "Waterfall Model". In this model phases do not overlap.

Waterfall Model Pros & Cons

Advantage The Waterfall Model is appreciated for its simplicity and structured approach. Since each phase follows a predefined sequence, it is easy to understand and manage. This model emphasizes thorough documentation at every stage, which helps in maintaining clear records and improving project tracking. Its well-defined phases—such as requirements gathering, design, implementation, testing, and de-

ployment—ensure that tasks are completed in an organized manner. The model is especially effective for small projects with fixed requirements, where changes are unlikely during development. Additionally, project timelines and deliverables can be planned more accurately, which makes it suitable for environments where strict scheduling is important.

Disadvantage Despite its structured nature, the Waterfall Model has several limitations. One major drawback is its inflexibility to changes; once a phase is completed, revisiting it can be difficult and costly. This makes it less ideal for projects where requirements are expected to evolve. Another issue is that testing occurs only after the entire development process is finished, which means bugs or design flaws may be discovered late, leading to increased correction costs. The lack of early working software also means that users don't interact with the product until late in the development cycle, risking misalignment with user expectations. Overall, the Waterfall Model carries higher risks for complex or dynamic projects where continuous feedback and iteration are crucial.

4.2 Team Members, Roles & Responsibilities

Diksha Aswani- Backend Development ,Database mangement and Planning

Kalpana Sharma - Frontend Development,Testing, and Debugging

Chapter 5

Centering System Testing

In the Waterfall Model, system testing plays a crucial role and is typically performed after the implementation phase is complete. Centering the development process around system testing ensures that the entire application is verified against the defined requirements. This phase checks the integrated software as a whole, validating its functionality, performance, security, and reliability. By placing strong emphasis on system testing, developers can catch major issues before deployment, ensuring that the application performs as expected in real-world conditions. However, since testing comes late in the Waterfall cycle, identifying and resolving fundamental issues can be costly, highlighting the importance of thorough planning and accurate requirement gathering in earlier phases.

5.1 Functionality Testing

Functionality testing is a critical phase in the development of an Online Skill Test Platform, aimed at verifying that all features of the application work according to the specified requirements. This type of testing ensures that core components—such as user registration and login, test creation and management, timed quiz execution, automatic scoring, result display, and administrative controls—operate correctly under various conditions. Test cases are designed to cover both typ-

ical user behaviors and edge cases, such as invalid inputs or session timeouts. The goal is to detect and fix any defects in how the system performs its expected tasks before the product is deployed. In the Waterfall Model, functionality testing is typically conducted after the full system is developed, making it essential to have precise and complete requirements from the start to avoid costly changes later in the process.

5.2 Performance Testing

Performance testing evaluates how well the Online Skill Test Platform performs under various conditions, focusing on speed, responsiveness, stability, and scalability. This type of testing ensures the platform can handle multiple users simultaneously taking tests, submitting answers, and receiving real-time results without delays or crashes. Key areas tested include page load times, server response under peak load, database access speed, and system behavior during high traffic. For example, the system might be tested with thousands of concurrent users to simulate exam-day traffic. Performance testing helps identify bottlenecks, such as slow queries or memory leaks, which can degrade the user experience. In the Waterfall Model, since testing happens after full development, thorough performance testing is vital to ensure the system is reliable and efficient before deployment.

5.3 Usability Testing

Usability testing focuses on evaluating how easy and user-friendly the Online Skill Test Platform is for its intended users, such as stu-

dents, instructors, and administrators. The goal is to ensure that users can navigate the platform intuitively, complete tasks efficiently, and understand the interface without confusion. During usability testing, real users interact with the system to perform common tasks—like registering, starting a test, submitting answers, and viewing results—while observers identify any difficulties or errors encountered. This testing helps uncover issues related to design, navigation, instructions, and overall user experience. In the Waterfall Model, usability testing is typically performed after development but before final deployment, making early design accuracy crucial. Feedback from this phase can lead to critical improvements in layout, accessibility, and overall satisfaction with the platform.

Chapter 6

Test Execution Summary

The test execution phase for the Online Skill Test Platform was carried out after the completion of the development phase, in alignment with the Waterfall Model. The testing team executed a comprehensive set of test cases covering functional, performance, and usability aspects of the application. The Test Summary Report contents are :

1. Module
2. Total number of test cases
3. Passed Test Cases
4. Failed Test Cases
5. Pass Percentage

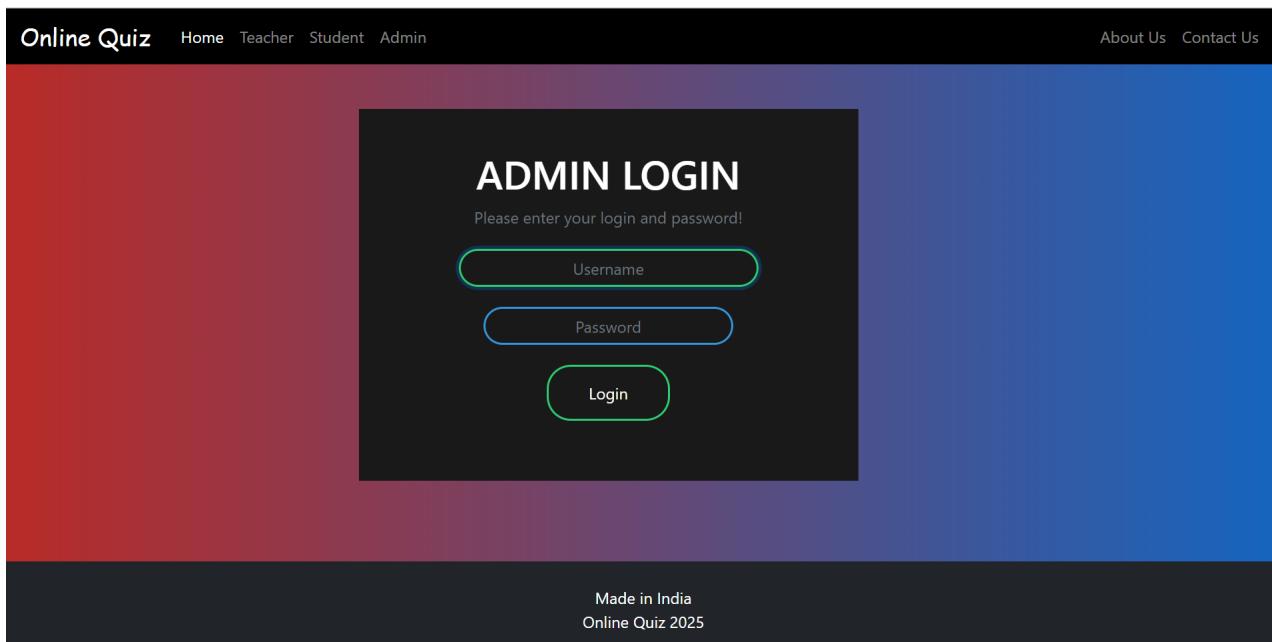
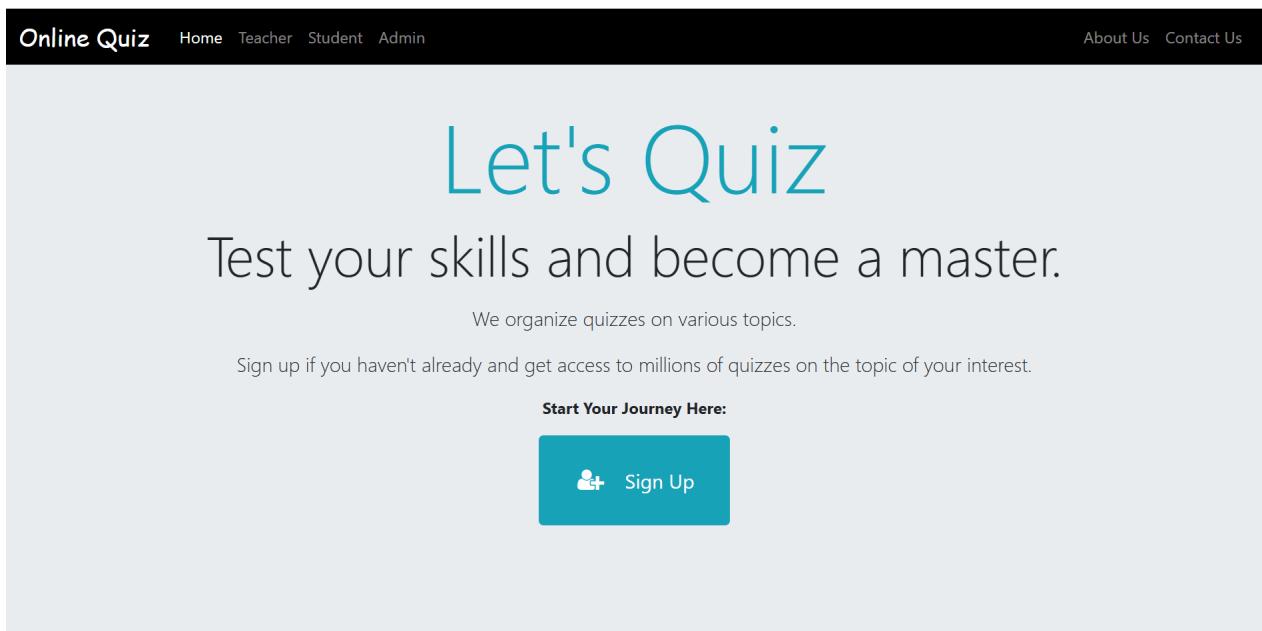
Test Execution Summary

Module	Total Tests	Passed	Failed	Pass Percentage
Module A	50	45	5	90%
Module B	75	63	12	84%
Module C	40	36	4	90%
Module D	60	54	6	90%
Total	225	198	27	88%

Figure 6.1: Summary of manual test cases

Chapter 7

Project Screen Shots



The screenshot shows the Admin dashboard of an Online Quiz application. At the top, there's a dark header bar with the text "ONLINE QUIZ" and a three-line menu icon. On the far right of the header is a blue "Logout" button. Below the header is a sidebar on the left containing a user profile icon and the word "Admin". The sidebar also lists several navigation items with icons: "Dashboard" (cloud), "Teacher" (person), "Student" (person), "Courses" (book), and "Questions" (question mark). To the right of the sidebar are four colored cards displaying summary statistics: a teal card for "Total Students" (2), a blue card for "Total Teacher" (1), a red card for "Total Courses" (4), and a brown card for "Total Questions" (19).

The screenshot shows the Teacher login page of the Online Quiz application. At the top, there's a dark header bar with the text "Online Quiz" and links for "Home", "Teacher", "Student", and "Admin". On the far right of the header are "About Us" and "Contact Us" links. The main content area has a light gray background. It features a large "Hello, Teacher" heading, a sub-heading "Welcome to Online Quiz", and a message "You can access various features after Login." Below this message are two blue buttons: "Create Your Account" and "Login". At the bottom of the page is a dark footer bar with the text "Made in India" and "Online Quiz 2025".

TEACHER SIGNUP

Username	Password
<input type="text" value="username"/>	<input type="password" value="password"/>
First Name	Last Name
<input type="text" value="First Name"/>	<input type="text" value="Last Name"/> Please fill out this field.
Mobile	Address
<input type="text" value="Mobile"/>	<input type="text" value="Address"/>
Profile Picture	
<input type="button" value="Choose File"/> No file chosen	
<input type="button" value="Sign Up"/>	

ONLINE QUIZ ≡

Logout



diksha
(Student)

Dashboard

Exam

Marks

Courses	
Exam Name	Take Exam
Python	○
Sql	○
Dsa	○
DBMS	○

ONLINE QUIZ

 **diksha**
(Student)

 [Dashboard](#)

 [Exam](#)

 [Marks](#)

Sql

1. Which SQL command is used to retrieve data from a database? [Marks 1]

Insert

Update

Delete

Select

2. What is the purpose of the HAVING clause in SQL? [Marks 1]

To filter rows based on conditions

To join two tables

To sort rows in ascending order

Django administration

WELCOME, DIKSHAASWANI. [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Site administration

AUTHENTICATION AND AUTHORIZATION

	 Add	 Change
Groups	 Add	 Change
Users	 Add	 Change

QUIZ

	 Add	 Change
Courses	 Add	 Change
Questions	 Add	 Change
Results	 Add	 Change

STUDENT

	 Add	 Change
Students	 Add	 Change

TEACHER

	 Add	 Change
Teachers	 Add	 Change

Recent actions

My actions

None available

Django administration

WELCOME, DIKSHAASWANI. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Quiz > Courses

Select course to change

Action: 0 of 4 selected

<input type="checkbox"/>	COURSE
<input type="checkbox"/>	DBMS
<input type="checkbox"/>	Dsa
<input type="checkbox"/>	Sql
<input type="checkbox"/>	Python

4 courses

[ADD COURSE +](#)

Django administration

WELCOME, DIKSHAASWANI. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Authentication and Authorization > Users

Select user to change

Action: 0 of 5 selected

<input type="checkbox"/>	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input type="checkbox"/>	Rupa	prasadup256@gmail.com			<input checked="" type="checkbox"/>
<input type="checkbox"/>	Shivi		Shivani	Raj	<input checked="" type="checkbox"/>
<input type="checkbox"/>	diksha		diksha	aswani	<input checked="" type="checkbox"/>
<input type="checkbox"/>	dikshaaswani				<input checked="" type="checkbox"/>
<input type="checkbox"/>	mohit		mohit	sharma	<input checked="" type="checkbox"/>

5 users

[ADD USER +](#)

FILTER

By staff status

- All
- Yes
- No

By superuser status

- All
- Yes
- No

By active

- All
- Yes
- No

By groups

- All
- STUDENT
- TEACHER

Django administration

WELCOME, DIKSHAASWANI. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Quiz > Questions

Select question to change

Action: 0 of 19 selected

QUESTION

Question object (21)

Question object (20)

Question object (19)

Question object (18)

Question object (17)

Question object (16)

Question object (15)

Question object (14)

Question object (13)

Question object (12)

Question object (11)

Question object (10)

Question object (9)

[ADD QUESTION +](#)

Django administration

WELCOME, DIKSHAASWANI. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Quiz > Results > Result object (4)

Change result

HISTORY

Student:

Exam:

Marks:

[Delete](#) [Save and add another](#) [Save and continue editing](#) [SAVE](#)

Chapter 8

Project Summary and Conclusions

8.1 Conclusion

The Online Skill Test Platform project was developed using the Waterfall Model, following a structured and sequential approach across all development phases. The project began with detailed requirement gathering, where key features like user registration, test creation, time-bound quiz functionality, automatic result evaluation, and admin controls were defined. This was followed by system design, coding, and extensive testing—including functional, performance, and usability testing. Each module was built and validated based on the predefined specifications, with a strong focus on reliability and user experience. The test results showed that the platform performed well under expected conditions, and only minor issues were encountered, most of which were resolved during the testing phase. The successful completion of the Online Skill Test Platform demonstrates the effectiveness of using the Waterfall Model for projects with clear and stable requirements. The platform is now capable of supporting online assessments with accurate scoring, a responsive interface, and administrative management tools.

Chapter 9

Future Scope

While the Online Skill Test Platform has successfully met its initial objectives, there are several areas for potential enhancement and expansion in the future. Some key areas for growth include:

- **AI-Powered Adaptive Testing:** Implementing machine learning algorithms to create adaptive tests that adjust the difficulty of questions based on the user's performance. This can provide a more personalized and accurate assessment experience.
- **Integration with Learning Management Systems (LMS):** Integrating the platform with popular LMS platforms like Moodle, Blackboard, or Canvas could streamline the process of creating and administering tests directly within educational environments.
- **Mobile App Development:** Extending the platform to mobile devices through an app would allow users to take tests on-the-go, making it more accessible and convenient.
- **Gamification:** Adding gamified elements, such as leaderboards, achievements, or badges, could increase engagement and motivation, making the testing process more interactive and fun.
- **Security Enhancements:** With the rise in online education, ensuring the security of the platform is paramount. Adding features

like biometric authentication, anti-cheating algorithms, and secure video proctoring could further safeguard the platform.

- Security Enhancements: With the rise in online education, ensuring the security of the platform is paramount. Adding features like biometric authentication, anti-cheating algorithms, and secure video proctoring could further safeguard the platform.

References

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