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A

PROJECT

REPORT

ON

"Career Guidance System"

BY

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<u>Abstract</u>

The Career Guidance Portal is a dynamic and user-centric software solution catering to individuals seeking direction in the realm of computer science careers. In an era marked by technological advancements and a diverse range of career options, the portal emerges as a guiding light, offering a structured approach to career selection.

Designed with the goal of simplifying the often complex and overwhelming process of choosing a career path, this portal employs a quiz-based system. By leveraging user-provided data and employing intelligent algorithms, it generates tailored career recommendations. These recommendations are rooted in the user's interests, skills, and preferences, thereby assisting individuals in making well-informed and personalized career decisions.

The portal's key features encompass user registration and login, a comprehensive quiz for career assessment, the generation of personalized career recommendations, user profile management, and access to supplementary resources within the computer science domain.

This documentation aims to provide a detailed understanding of the portal's functionality, design, and purpose. It serves as a guide for developers, stakeholders, and users, outlining the project's objectives and features, and emphasizing its significance in assisting individuals in making informed career choices within the computer science domain.

Introduction

The Career Guidance Portal is a comprehensive software solution designed to assist individuals in identifying their ideal career paths. Developed within the domain of computer science, this portal serves as an interactive platform that enables users to discover suitable career fields based on their interests, skills, and preferences.

2.1 Motivation:

The motivation behind the development of the Career Guidance Portal stems from the recognized need for a structured and user-friendly platform to assist individuals in navigating the complexities of selecting a career within the realm of computer science. As the job market expands and technology continues to evolve, the sheer multitude of career paths can be overwhelming. This portal aims to alleviate this confusion by offering personalized recommendations based on user's preferences, enabling them to make informed decisions about their professional future.

2.2 Problem Definition:

The problem addressed by the Career Guidance Portal is the lack of a centralized and accessible platform that effectively assists individuals in identifying suitable career paths within the domain of computer science. The absence of a tailored tool often results in confusion and uncertainty among individuals as they attempt to choose a career aligned with their interests and skills.

2.3 <u>Purpose of Project:</u>

The purpose of the Career Guidance Portal is to streamline and simplify the process of career selection within computer science for individuals. By offering an intuitive and interactive quiz format, the project seeks to provide tailored career recommendations based on user input. The aim is to empower individuals with a clearer understanding of potential career paths that align with their strengths, interests, and aspirations, ultimately facilitating informed decision-making.

2.4 <u>Literature Survey:</u>

The development of the Career Guidance Portal involved a comprehensive study and analysis of existing literature, resources, and similar platforms related to career guidance, aptitude testing, and personalized recommendation systems. This literature survey served as the foundational research, aiding in the design and implementation of an effective and user-centric system.

2.5 <u>Project Scopes and Limitations:</u>

The scope of the Career Guidance Portal encompasses providing personalized career recommendations within the computer science domain based on user-provided data. The portal aims to deliver tailored suggestions through a quiz-based system and offers additional resources related to various career fields. However, certain limitations may include the subjective nature of career choices and the reliance on user-provided information, which might affect the precision of recommendations.

System Analysis

3.1 Comparative Study of Existing System:

A comparative study of existing systems related to career guidance and aptitude assessment within the field of computer science was conducted to understand the strengths, weaknesses, and features of similar platforms. This analysis focused on:

- **Functionality:** Examining the features and functionality offered by existing career guidance systems.

- **User Experience:** Evaluating the user interface and experience in the context of quiz-based assessments.

- **Accuracy of Recommendations:** Assessing the precision and relevance of career recommendations generated by these systems.

- **Technological Infrastructure:** Analysing the underlying technologies and frameworks utilized in these systems.

The study aimed to draw insights and best practices from these existing systems to inform the development of the Career Guidance Portal and improve upon their limitations.

3.2 <u>Scope and Limitations of Existing System:</u>

The examination of the existing systems revealed their scope and limitations, which aided in defining the focus areas for the development of the Career Guidance Portal. The findings included:

- **<u>Scope:</u>** Understanding the functionalities, features, and successful aspects of existing systems that align with the project objectives.

- **<u>Limitations:</u>** Identifying the shortcomings, such as the lack of personalized recommendations or limited career fields covered, which provided crucial insights into areas for enhancement.

This analysis was fundamental in determining the features and scope the new system should encompass to address the identified limitations and potentially provide a more comprehensive solution.

3.3 <u>Stakeholders:</u>

Identifying and defining the stakeholders involved in or affected by the Career Guidance Portal project was crucial for understanding various perspectives and requirements. The stakeholders included:

- **<u>Users:</u>** Individuals seeking career guidance within the field of computer science.

- **<u>Developers:</u>** The team responsible for designing, developing, and maintaining the portal.

- **<u>Educational Institutions:</u>** Entities that might collaborate or use the system for student guidance.

- **<u>Career Counsellors:</u>** Professionals who might use the portal to aid their counseling sessions.

- **<u>Administrators:</u>** Those responsible for managing and maintaining the portal.

Understanding the needs, expectations, and roles of these stakeholders was essential for ensuring the portal meets diverse requirements and operates effectively within its ecosystem.

This system analysis focused on evaluating existing systems, their scope, and limitations, and identified the key stakeholders involved in the development and usage of the Career Guidance Portal within the domain of computer science.

<u>System Design</u>

4.1 <u>Design Constraints</u>

<u>Hardware or Environmental Constraints:</u>
Specifications or limitations related to the hardware environment where the system will be deployed, including server configurations, network limitations, or compatibility constraints.

<u>Performance Constraints:</u>
Specific performance benchmarks or thresholds that the system must meet, such as response times, load handling, or scalability requirements.

<u>Compatibility Constraints:</u>
Mandates related to the compatibility of the system across different devices, browsers, or operating systems.

<u>Budgetary Constraints:</u>
Restrictions or guidelines on the financial resources allocated to the project, influence decisions regarding the selection of hardware, software, and services.
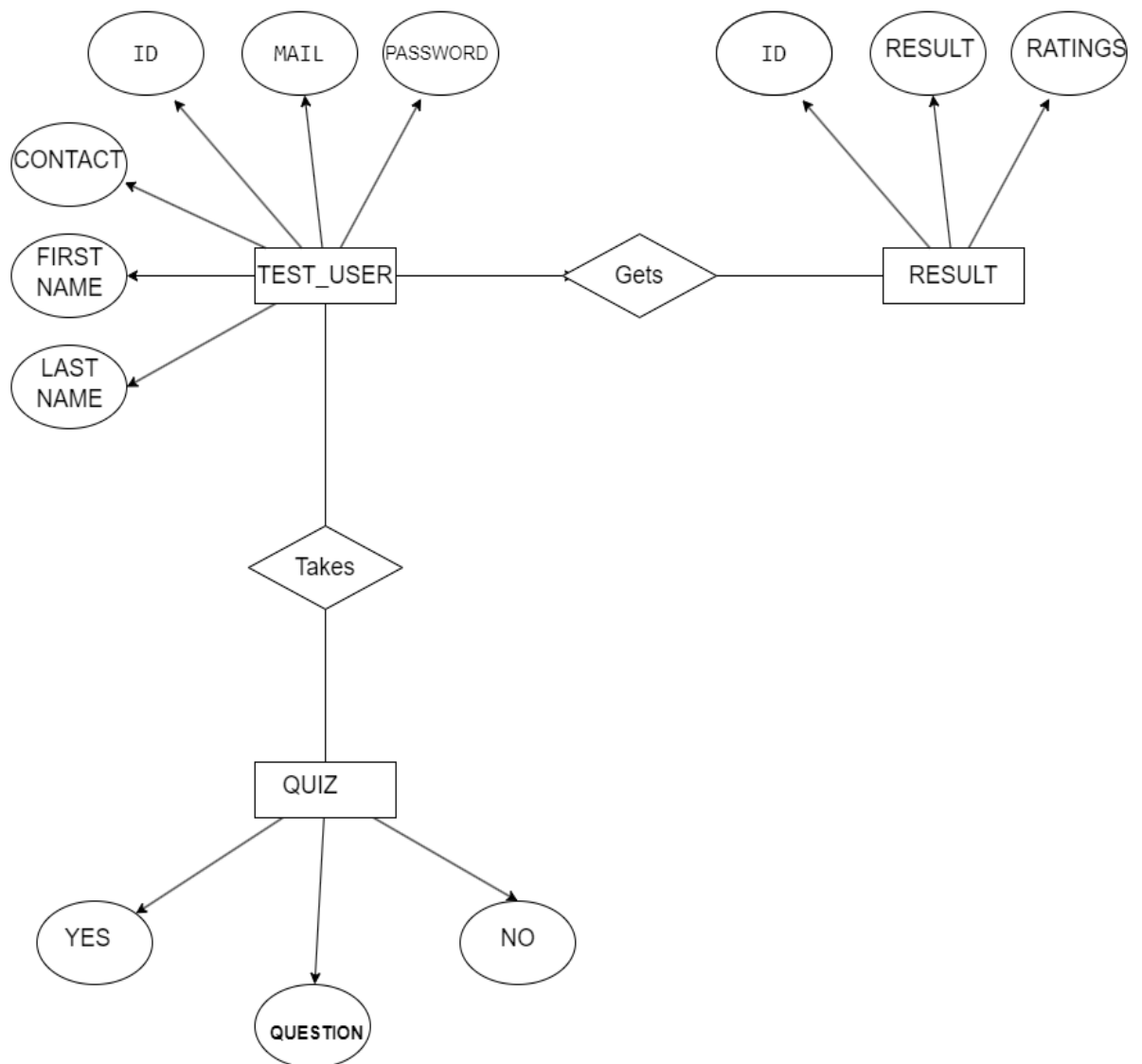
<u>Time Constraints:</u>
Project timelines, deadlines, and delivery schedules that affect the development, testing, and deployment phases of the system.
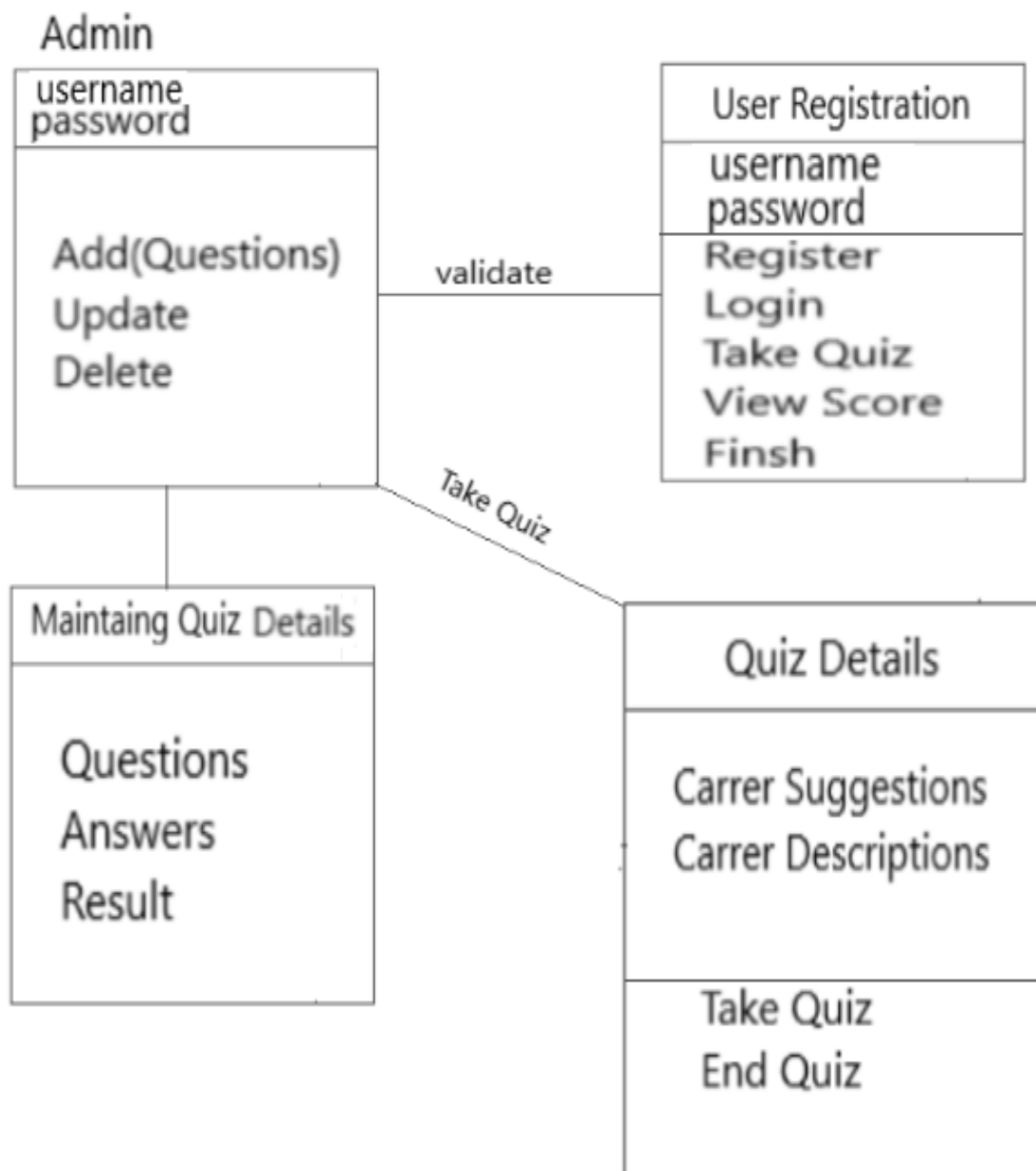
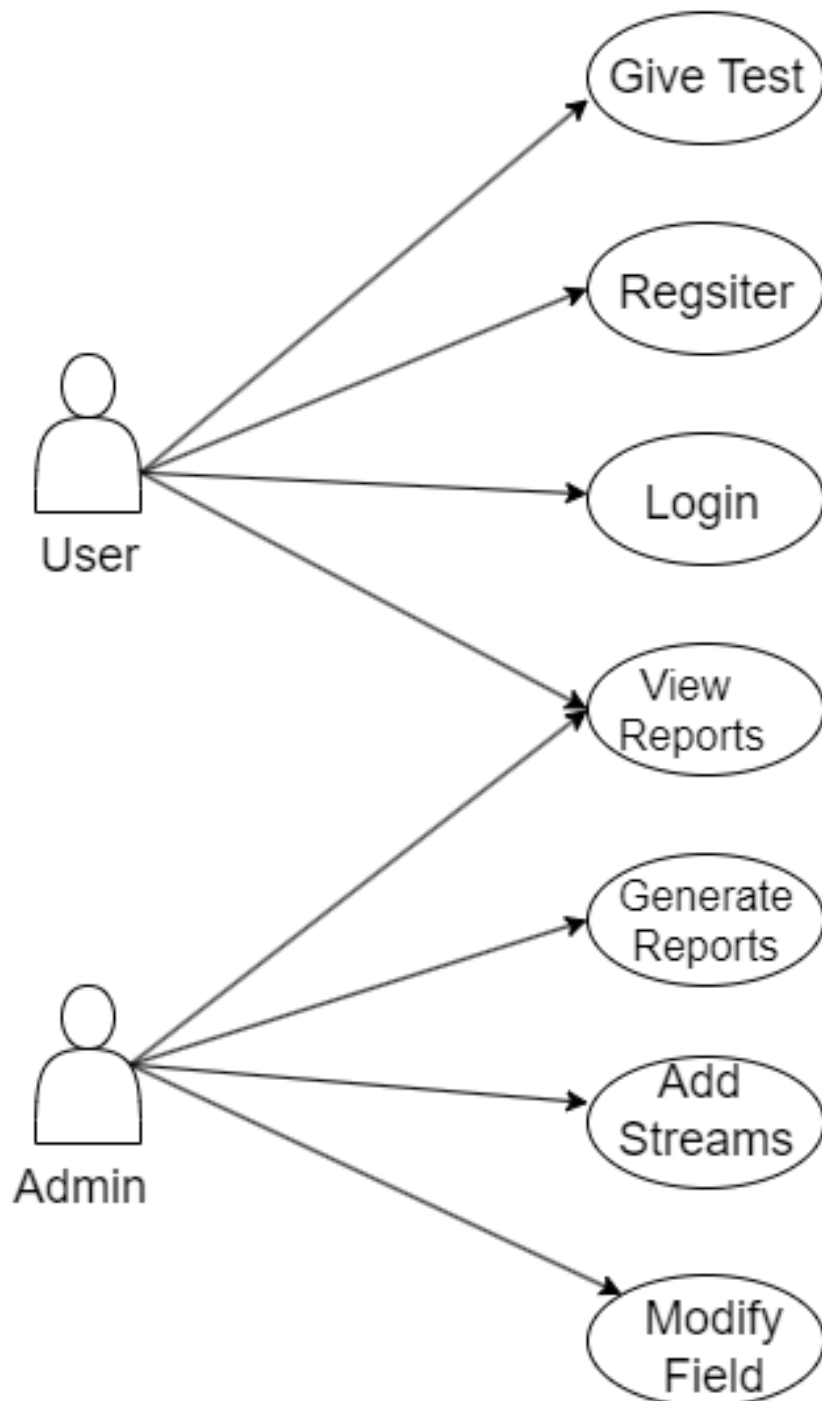# 4.2 <u>System Model – UML Diagram</u>
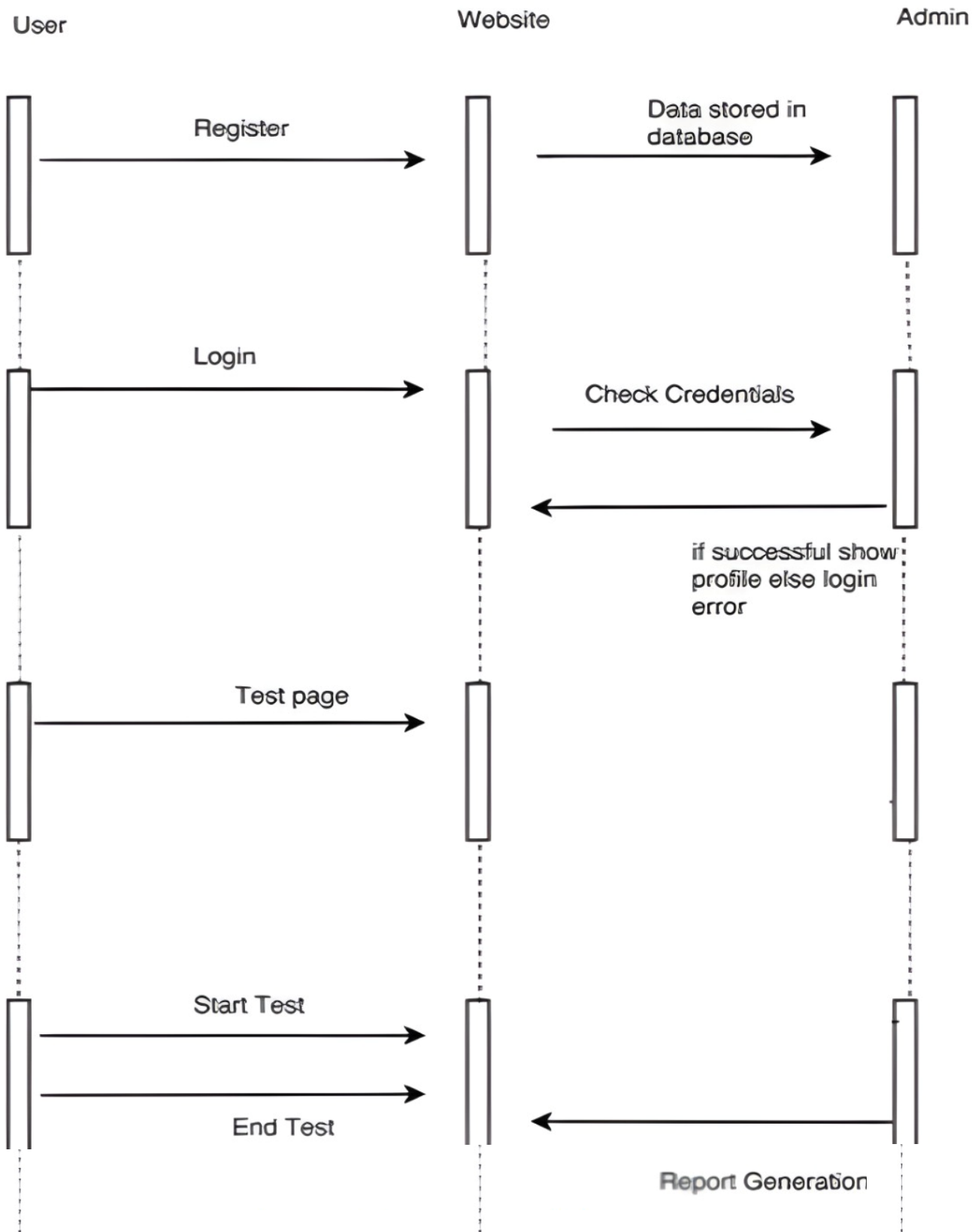
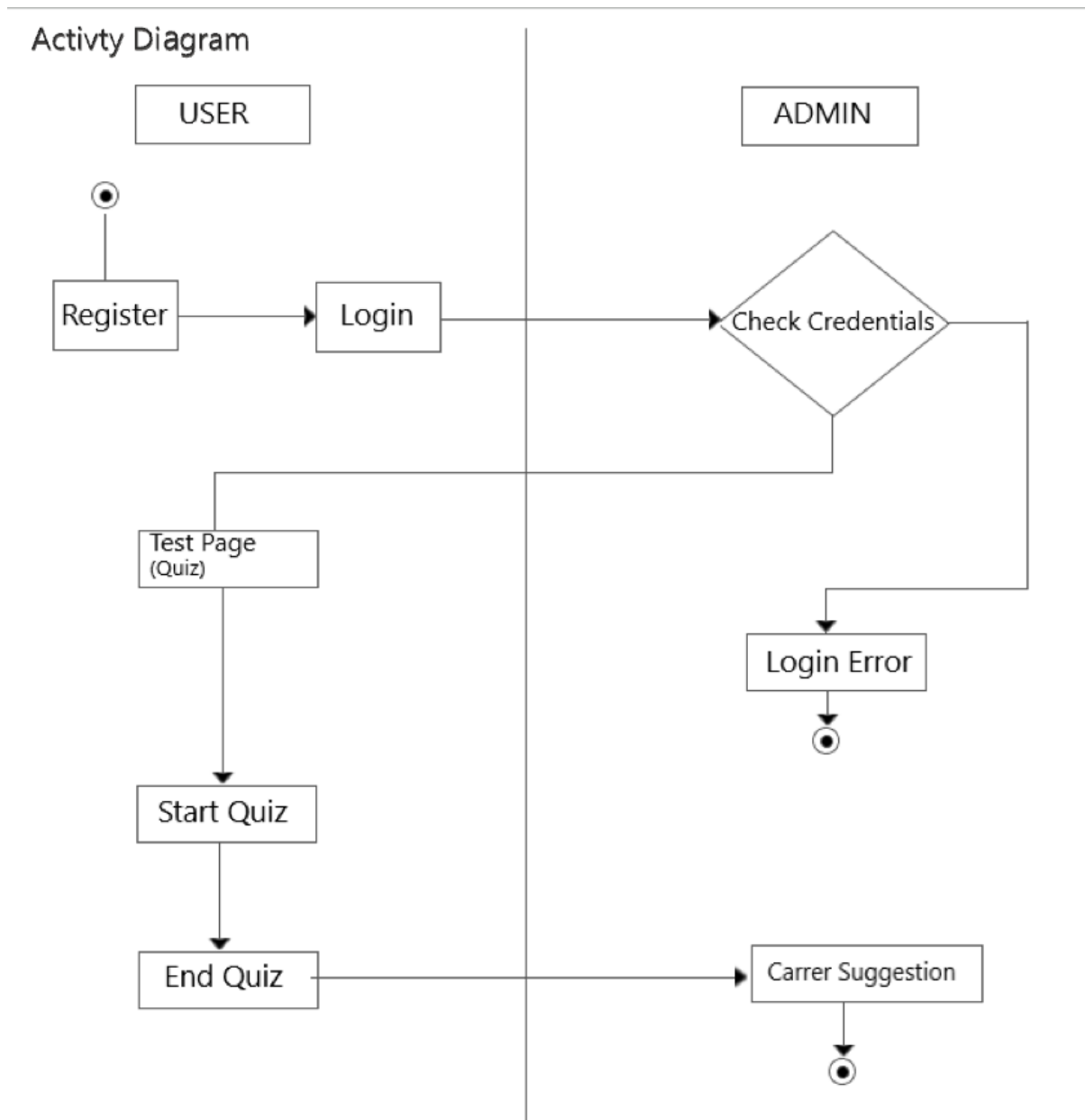- ## <u>ER Diagram:</u>

ER

- Class Diagram:

Admin
username password
Add(Questions) Update Delete

User Registration
username password
Register Login Take Quiz View Score Finsh

validate

Maintaing Quiz Details
| Questions Answers Result |

Take Quiz

Quiz Details
Carrer Suggestions Carrer Descriptions
Take Quiz End Quiz

- **Use Case:**

Give Test

Regsiter

Login

View Reports

Generate Reports

Add Streams

Modify Field

User

Admin

- **Sequence Diagram:**

User	Website	Admin

Register →

Data stored in database →

Login →

Check Credentials →

← (response)

if successful show profile else login error

Test page →

Start Test →

End Test →

← (response)

Report Generation

- **Activitity Diagram**

Activty Diagram

USER | ADMIN

Register → Login → Check Credentials

Test Page (Quiz)

Login Error

Start Quiz

End Quiz → Carrer Suggestion

- **Deployement Diagram:**

Deployment
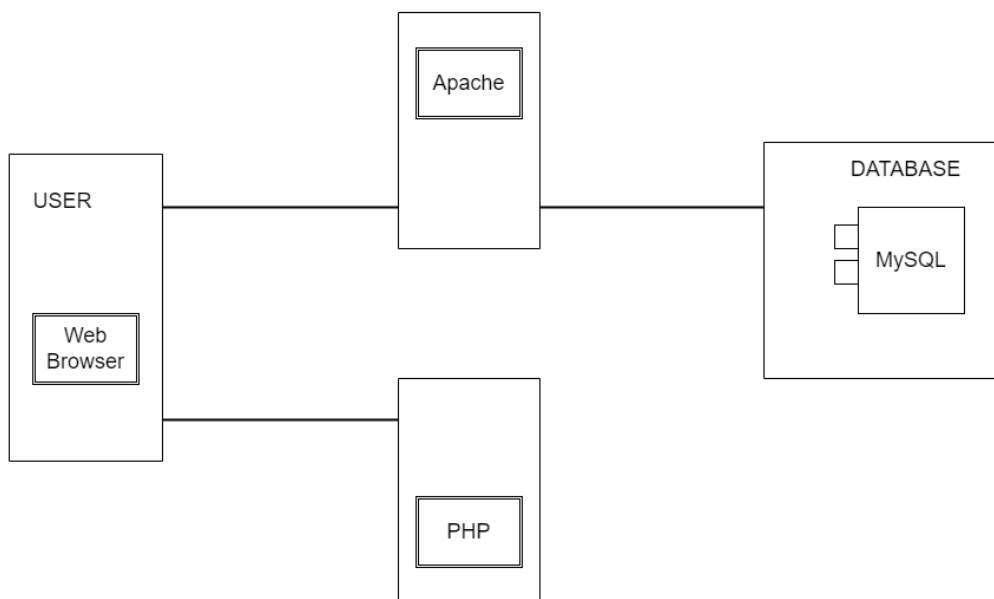
4.3 User Interfaces:

Register

	Tanmay
	Bagul
	VoldiBot
	Password
	Confirm Password
	tanmay@gmail.com
	7796177029

Register

Hi, VoldiBot!

ABOUT   LOGOUT   CONTACT   RATE US

Career Guidance

Get the right guidance to leap through your career.

Take the test now

ABOUT THE PROCESS

The test helps to actively exploit your strongest forte

✔

Communication

Effective professional communication is about conveying important information from one source to another. If that information is communicated clearly and effectively, businesses are more likely to run efficiently. While this skill can take effort to develop, the benefits are apparent across every industry.

✔

Creativity

Creative thinking is the process of considering situations from innovative perspectives and developing an open-minded mindset. Using creative thinking allows you to generate new ideas, interpret situations, identify themes and design alternatives to existing modes of operating. Being a creative thinker involves trying to find new ways to approach existing situations and finding value in diverse mindsets, methods and theories.

✔

Management

Management skills can be defined as certain attributes or abilities that an executive should possess in order to fulfill specific tasks in an organization. They include the capacity to perform executive duties in an organization while avoiding crisis situations and promptly solving problems when they occur. Management skills can be developed through learning and practical experience as a manager.

✔

Leadership

Leadership skills help you make critical decisions and set clear goals for your organization. Business owners must at times make decisions that are unpopular with employees or investors. Possessing leadership skills can help a business owner stick to his decision and conviction despite the rejection of others.

Are you good with words?

YES   ○   NO   ○

Next

Teacher

Teacher/Professor

Teaching is considered to be one of the most respectable professions.If you enjoy talking to people,presenting go for it,You'll love it.

GO TO HOME

Career Guidance

Get the right guidance to leap through your career.

View Result   Retest

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🔒 Password

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Implementation Details

5.1 <u>Software - Hardware Specification:</u>

<u>**Software Specifications:**</u>

- o **Programming Languages**

  <u>**Backend:**</u> MySQL for data storage.
  <u>**Frontend:**</u> PHP, HTML, CSS for data storage.
  <u>**Host Application:**</u> XAMPP

<u>**Hardware Specifications:**</u>

- o <u>**Minimum Specifications:**</u>

  Windows 8, Intel i3 or Ryzen 5, 4 GB RAM, 200 GB SSD/ HDD.

Testing

Testing is an integral part of the development process for the Career Guidance Portal. It ensures that the system functions as intended, is free from errors, and delivers an optimal user experience.

Test Case ID	Description of Test Case	Precondition	Test Steps	Expected Results	Actual Result
TC 001	Verify if the user can **Register**	The user must provide valid credentials	Enter valid details	Registration Successful	**Pass**
TC 002	Verify if the user can **log in**	User must be registered	Enter valid details	**Login** Successful	**Pass**
TC 003	Verify if the user can **Test**	User must have logged in	Attempt test	End result displayed	**Pass**
TC 004	Verify if the user can **Retest**	The user must attempt the test once	Go to the homepage, click on retest	Redirected to the test	**Pass**
TC 005	Verify if the user can **Logout**	User must logged in first	Click on the logout button	**Log out** successfully	**Pass**

Conclusion and Recommendations

Conclusion:

The development of the Career Guidance Portal marks a significant endeavor in providing tailored career recommendations within the expansive realm of computer science. The project aimed to simplify the often complex process of career selection, offering users an interactive and informative platform. Through the course of development, several key aspects emerged:

- **Empowerment through Personalization:** The portal aims to empower individuals by offering personalized career recommendations based on their interests, skills, and preferences. It provides a guiding light in the maze of career options.

- **User-Centric Design and Functionality:** The system was developed with a strong focus on user experience, ensuring a seamless interface for taking quizzes, receiving recommendations, and accessing additional resources.

- **Continuous Improvement:** Testing and evaluation were integral parts of the development cycle, aiming to enhance the system's performance, security, and overall user satisfaction.

Recommendations:

- **Refinement through User Feedback:**
  Continual feedback loops with end-users will be essential for refining the system, ensuring it remains relevant and valuable.

- **Enhanced Data Analysis:**
  Further exploration and implementation of advanced data analysis bolster the accuracy of career recommendations.

- **Collaboration and Partnerships:**
  Collaborating with educational institutions and industry experts can enrich the portal's resources, providing updated and insightful information about career prospects.

- **Maintenance and Updates:**
  Regular maintenance, security updates, and feature enhancements are crucial to keep the platform aligned with evolving technologies and user needs.

In conclusion, the Career Guidance Portal represents an innovative solution for guiding individuals toward suitable career paths in the vast domain of computer science. Continuous evolution and refinement will be crucial in ensuring the system remains a beacon of support for users seeking clarity in their professional pursuits.

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