MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Deemed to be University

(Declared under Distinct Category by Ministry of Education, Govt. of India)

NAAC Accredited with A++ Grade

Project Report

on

Development of Online Mock Examination System (User Site)

Submitted By:

Vijay Dhakad

0901CA221069

Industry Mentor:

Mrs. Sweety Gupta (Project Guide, Praedico Global Research Pvt. Ltd)

Faculty Mentor:

Dr. Parul Saxena (Assistant Professor)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

GWALIOR – 474005 (MP) Estd. 1957

January – June 2024

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Development of Online Mock Examination System (User Site)

A Project report submitted in partial fulfilment of the requirement for the degree of

MASTER IN COMPUTER APPLICATION

in

COMPUTER SCIENCE AND ENGINEERING

Submitted By:

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praedicoglobalresearch@gmail.com

Ref.: PGR-2024/P-408 **Date:** 22-April-2024

To whom so ever it may concern

This is to certify that **Mr./Mrs./Miss. VIJAY DHAKAD (0901CA221069)** student of MCA at MITS, Gwalior, has completed **Project** Training/Internship program as an online/offline trainee at our organization **PRAEDICO GLOBAL RESEARCH PVT. LTD.** Him/Her training details are:

Period - **01 JAN 2024 to 22 APR 2024**

Technology – **MERN Full Stack**

Project Title – **ONLINE MOCK EXAMINATION SYSTEM (USER MODULE)**

All of us at Praedico Global Research Pvt. Ltd. are pleased to have him/her in our team. This Project Training/Internship program includes training, orientation and focuses primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands on application of the knowledge he/she learned.

We take this opportunity to wish him/her a long, happy and successful career.

For

Authorized Signatory

Praedico Global Research Pvt. Ltd.

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Deemed to be University

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CERTIFICATE

This is certified that **Vijay Dhakad** (0901CA221069) has submitted the project report titled **Development of Online Mock Examination System (User Module)** under the mentorship of **Mrs. Sweety Gupta** (Praedico Global Research Pvt. Ltd.), in partial fulfilment of the requirement for the award of degree of **Master in Computer Application** of Computer Science and Engineering from **Madhav Institute of Technology and Science, Gwalior.**

Saxena 25/4/24

Dr. Parul Saxena

(Assistant Professor)

Computer Science and Engineering

25/4/24

Dr. Manish Dixit

(Professor and Head)

Computer Science and Engineering

Dr. Manish Dixit
Professor & HOD
Department of CSE
M.I.T.S. Gwalior

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Deemed to be University

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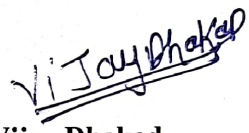
DECLARATION

I hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Master in Computer Application in Computer Science and Engineering at **Madhav Institute of Technology & Science, Gwalior** is an authenticated and original record of my work under the mentorship of **Mrs. Sweety Gupta** (Praedico Global Research Pvt. Ltd).

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.



Vijay Dhakad

0901CA221069

2022-2024

Master in Computer Application

Computer Science and Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
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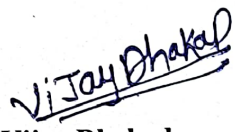
ACKNOWLEDGEMENT

The full semester project has proved to be pivotal to my career. I am thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary project. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this.

I would sincerely like to thank my department, **Department of Computer Science and Engineering**, for allowing me to explore this project. I humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of this engagement, which eased the process and formalities involved.

I would like to extend my heartfelt appreciation to **Mrs. Sweety Gupta** (Project Guide, Praedico Global Research Pvt. Ltd.) for his exceptional mentorship, guidance, and assistance throughout the project. His valuable input and feedback during the course of the project have helped me enhance my knowledge and skills. His constant encouragement and support have been instrumental in the successful completion of this project.

I am sincerely thankful to my faculty coordinator. I am grateful to the guidance of **Dr. Parul Saxena** (Assistant Professor), Computer Science and Engineering, for hir continued support and guidance throughout the project. I am also very thankful to the faculty and staff of the department.



Vijay Dhakad
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2022-2024
Master in Computer Application
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ABSTRACT

In today's digital era, educational institutions and organizations are increasingly adopting online platforms to conduct assessments, examinations, and tests. The development of an **online mock examinations system** aims to provide students with a comprehensive platform for practicing and sharpen their skills in preparation for upcoming examinations. With the adage "practice makes perfect" as its guiding principle, the system offers students an opportunity to engage in simulated exam scenarios that closely resemble the format and content of their final assessments.

Through the platform, students can access a diverse range of mock exams tailored to their specific academic disciplines and levels of proficiency. These mock tests serve as invaluable practice runs, allowing students to familiarize themselves with the structure of the exams, refine their time management skills, and assess their understanding of the subject matter. By repeatedly attempting mock tests, students can identify areas of weakness and focus their efforts on improving their performance in those areas.

One of the kies benefits of the online mock examination system is its abilities to instill confidence in students. As they gain experience and proficiency through regular practice, students develop a sense of assurance in their abilities, which in turn empowers them to approach the final examination with a greater degree of self-assurance. Moreover, by identifying and rectifying errors during the mock test phase, students can mitigate the risk of making similar mistakes during the actual exam, thus enhancing their chances of achieving a favorable outcome.

The system is designed to be users-friendly and accessible, with intuitive navigation features that enable students to easily locate and select the mock tests most relevant to their needs.
Additionally, the platform incorporates advanced assessment tools and performance analytics, allowing students to their progress over time and receive personalized feedback on their strengths and weaknesses.

In conclusion, the online mock examination system represents a valuable resource for students seeking to optimizing their exam preparation efforts. By providing a conducive environment for practice and skill development, the system empowers students to perform at their best and achieve academic success in final examination

सार

आज के डिजिटल युग के, शैक्षिक संस्थान और संगठन अधिकतर ऑनलाइन प्लेटफॉर्म का अनुशासन, परीक्षण, और परीक्षण करने के लिए अपना काम ले रहे हैं। एक ऑनलाइन मॉक परीक्षण प्रणाली के विकास का उद्देश्य छात्रों को आगामी परीक्षाओं की तैयारी के लिए एक व्यापक प्लेटफ़ॉर्म प्रदान करना है। "अभ्यास से पूर्णता" के नारे के रूप में इसके मार्गदर्शक सिद्धांत के साथ, प्रणाली छात्रों को वास्तविक परीक्षणों के प्रारूप और सामग्री के प्रति अनुरूप सिम्युलेटेड परीक्षण के संदर्भ में शामिल होने का एक अवसर प्रदान करती है।

प्लेटफ़ॉर्म के माध्यम से, छात्रों को अपने विशिष्ट शैक्षिक विषयों और प्रवीणता स्तरों के लिए तैयार किए गए विविध प्रकार के मॉक परीक्षण तक पहुँच मिलती है। ये मॉक परीक्षण अनमोल प्रैक्टिस रन होते हैं, जो छात्रों को परीक्षा के संरचना से परिचित कराते हैं, उनके समय प्रबंधन के कौशल को संवारने में मदद करते हैं, और विषयवस्तु के समझ का मूल्यांकन करने में सहायक होते हैं। मॉक परीक्षणों को बार-बार प्रयास करके, छात्र अपनी कमजोरियों के क्षेत्रों को पहचान सकते हैं और उन क्षेत्रों में अपनी प्रदर्शन को सुधारने पर अपने प्रयासों को केंद्रित कर सकते हैं।

ऑनलाइन मॉक परीक्षण प्रणाली का एक प्रमुख लाभ छात्रों में आत्मविश्वास डालने की क्षमता है। जब वे नियमित प्रैक्टिस के माध्यम से अनुभव और प्रवीणता प्राप्त करते हैं, तो छात्रों के अपनी क्षमताओं में आत्मविश्वास का विकास होता है, जिससे वे अधिक स्वायत्त के साथ अंतिम परीक्षा के प्रति निकट स्वाभाविकता के साथ निकटता से सामना कर सकते हैं। विशेष रूप से, मॉक परीक्षण चरण के दौरान त्रुटियों की पहचान और सुधार करके, छात्रों को वास्तविक परीक्षा के दौरान समान गलतियों के उत्पन्न होने के जोखिम को कम करने में मदद मिलती है, जिससे उनकी अनुकूल परिणाम प्राप्ति की संभावनाएं बढ़ जाती हैं।

CONTENT

CHAPTER 1: INTRODUCTION

One such innovative solution is the Online Mock Examination System. In our online mock examination system, we have two parts, but we're focusing only on User Interface part. User interfaces help to user, The System offers flexibility in scheduling exams, allowing users to choose convenience time slots based on their availability. User can also access study materials and practice tests at their own pace. Users have access to wide range of study resource, including practice questions, sample exams, study guides, and reference materials. The resources help users prepare comprehensively for their exams and build confidence in their knowledge and skills. After completing a mock exam, users receive immediate feedback on their performance, including scores. this timelys feedback enables users to identifies areas for improvement and adjust their study strategies accordingly. Users create their own mock test within an Online mock Examination System, they typically have access to features that allow them to customize the test according to their needs.

1.1 Problem identification

The absence of an online mock test system can lead to various challenges related to accessibility, cost-effectiveness, scheduling flexibility, test environment simulation, security, and interactivity, impacting the overall effectiveness of exam preparation and assessment processes. Regular feedback from test-takers, continuous evaluation of the testing process, and collaboration with subject matter experts can help identify and address these problems in online mock tests.

(a) **Limited Access:** Traditional mock tests often require physical attendance at specific location, limiting access for individuals who may be unable to travel or attend in person due to distance, time constraints, or for commitments.

(b) **Cost and Resource Constraints:** Organizing traditional mock tests can be costly and resource-intensive, requiring expenses for venue rentals, printing materials, and staffing. This can restrict the frequency and availability of mock tests for students.

(c) **Inflexibility in scheduling:** traditional mock tests are typically conducted on predetermined dates and times, which may not accommodate the diverse schedules of students and candidates preparing for exams.

(d) **Scoring and Feedback Delays:** Scoring and feedback processes in traditional mock tests can leads to delays in providing test results and feedback to participants, hindering their ability to tracks progress and identifies areas for improvement promptly.

(e) **Environmental Impact:** Traditional mock tests often involve significant paper usage for question papers, answer sheets, and other materials, contributing to environmental concerns related to

deforestation and waste generation.

(f) **Reduced Interactivity and Engagement:** Traditional mock tests may lack interactive features and engagement mechanisms that are available in online platforms, such as multimedia content, interactive quizzes, and instant feedback, which can enhance learning and retention.

(g) **Creating your Mock test:** in this process user make a mock test according to your exam practice. In case, mock test is not according to user exam then make a user mock test and check your efficiency and score.

1.2 Parent Organization

Praedico Global Research Pvt. Ltd.: Revolutionize Financial Literacy in India

At Praedico, our goal is to democratize financial literacy in India, and we're taking this task on ssfor free. We've led the way in the creation of financial neurons—sophisticated neural networks that underpin our state-of-the-art stock market intelligence offerings—inspired by the neural architecture of the human brain.

We are the first finance neuron developers in India, not simply another finance firm. We are able to anticipate stock market performance globally with high accuracy by utilizing the capabilities of neural networks that have been properly created. As a cutting-edge fintech business, we use artificial intelligence to find new financial research products with the goal of providing people with free, topnotch research and insights.

With forecasts in the Indian stock market and financial goods over 80% precision, our products have an amazing track record of accuracy. This implies that ordinary Indian investors, who usually had to pay high fees for research and advisory services, may now use our services for free.

Our goal is to spearhead the global effort to eradicate financial inequity. We're leveling the playing field and making sure that everyone, regardless of financial means, has the chance to prosper in the market by offering free access to financial information and tools.

We're dedicated to creating financial solutions that beat the market in terms of pricing and performance in order to realize our mission. Our goal is to become the industry leader in financial product creation by setting the bar for performance and cost-effectiveness in the marketplace.

At Praedico, we're changing the financial environment as a whole, not simply financial literacy. We are enabling people all throughout India to take charge of their financial lives with our creative strategy, steadfast attention to accuracy, and unwavering commitment to accessibility.

At Praedico Global Research Organization, we blend finance and technology seamlessly. As a web developer, my role revolves around creating user-friendly interfaces that facilitate efficient access to financial information and analysis. We're deeply involved in stock and ETF (Exchange Traded Fund) analysis, covering a wide range of assets, including GoldBees, NiftyBees, and SilverBees. Our joy stems from the comprehensive calculations and insights we derive from these analyses.

1.3 Hardware and Software Specification

(a) Hardware Specification

We have detailed the exact specifications for the hardware required for our project in order to ensure peak performance and reliability. The first processor we have is a 2 GHz Core AMD Ryzen 5. The robust processing capacity of this processor is essential for efficient handling the computational requirements of our project. When paired with 8GB of RAM, our machine will have enough memory to support multitasking and easily handle large datasets. Our project files and data will be stored on a 512GB hard drive, which will be plenty for our needs. A 512GB SSD (Solid State Drive), which enhances system performance overall and offers faster data access rates, will also be included. To ensure compatibility with modern software and maximize speed, our system will be powered by a 64-bit OS X64 H processor. We can begin our project with confidence knowing that our system can effectively and efficiently manage the demands of our jobs now that these hardware requirements have been met.

(b) Software Specification

A software requirements specification (SRS), commonly referred to as a computer software specification, is a document that lists the specifications, features, and limitations of a software system that needs to be produced. It acts as a guide to help Stakeholders, engineers, testers, and software developers grasp the project's scope and make Sure the finished result satisfies their demands as well as the intended goal.

Window 11 operating system: With its cutting-edge capabilities, improved security features, and improved user interfaces, windows 11 offers a robust and safe environment for software development. its modern designs and optimized performance further contribute to this selection. As the main coding environment, Visual Studio Code (VS CODE) provides a wealth of features designed for Contemporary development workflows. Its extensive libraries of extensions, integrated version control system, and support for multiple programming languages speed up the coding process.

Postman: in today's networked software ecosystem, Postman becomes an indispensable tool for API testing and validation. Because of its user- friendly interface, developers can test and designs. Can easily debug API's guaranteeing the software's scalability and dependability. It improves test efficiency. Include attributes including collaborative tool, real-time monitoring, and automated testing. Through the utilization of window 11, VS Code, Workbench, and Postman, the software development process may be optimized for maximum performance and scalability. This strong software stack gives developers the tools and resources they need to fulfill the demands of modern

software development, whether they are processing massive amount of data, testing intricate APIs, or delivering applications across varying environments.

AWS S3 bucket: Image storage is frequently done with an Amazon S3 bucket because of its scalability, durability, and accessibility. For the purpose of using an S3 bucket especially for image storage,

Microsoft's most recent operating system, windows 11, has a revamped user interface, better Productivity tools, and increased security. Application such as Microsoft office (Word, Excel, And PowerPoint).

CHAPTER-2: SYSTEM ANALYSIS

2.1 Problem Analysis

(a) **Review the outcomes of your mock test exam:** Analyzing the outcomes of your mock exam is the first step. it's critical to know where you stand and how much work still must be done. After receiving the results of your mock exam, review the answer key and contrast. Your responses with the right ones. Determine which question you answered correctly and which you did not. Make a note of the questions that required more time to answer as well.

(b) **Examine the responses:** Reviewing the answers comes after you have assessed the outcomes of your fake test. Sadly, a lot of students neglect that phase and concentrate only on their result, Negating the whole point of taking mock exams. Rather, carefully go over each solution to ensure that you comprehend the concept and how they can be applied to solve different kind of situations.

(c) **Determine your areas of weakness:** Examine the questions you failed to get a sense of any Trends Do you require assistance with a specific ideas, issue or subject? If so, that's the Region you should focus on. List all the disciplines and themes that require extra.

(d) **Recognize your strengths:** it's crucial to evaluate the responses you provided correctly and identify your area of strength. Additionally, take time you have invested in these accurate answers and search for speedier alternatives to respond. It will help you become a better analytical thinker and free up more time to concentrate on the tough questions.

2.2 Feasibility study

2.2.1 Economic Feasibility study

Personnel Expenses

S.no	Specification	Cost
1	System Analyst [15 days/month]	Rs. 4000/-
2	Programmer [20 days/month]	Rs. 6000/-
3	Backend Specialist [15 days/month]	Rs. 4000/-
	Total	Rs. 14000/-

Expenses

S.no	Specification	Cost
1.	Electricity (in 4 month) 200 /- per month	Rs. 800/-
2.	Stationary	Rs. 400/-
3.	Workplace facilities	Rs. 1000/-
4.	Wi-fi	Rs. 2000/-
	Total	Rs. 4200/-

Hardware & Software expenses

S.no.	Specification	Cost
1.	Development Server (Express Js)	Rs. 4000/-
2.	Server Software (O.S)	Rs. 3000/-
	Total	Rs. 7000

Total	Rs. 25200/-

2.2.2 Technical feasibility study

In technical feasibility study, We shall assess the project's Current computer system support during the technical feasibility analysis. We will Essentially outline the hardware(equipment) and software requirements.

(a) **Hardware Requirement:** For our project, we have given exact specifications for the hardware required to ensure maximum performance and reliability. First up is a AMD Ryzen 5 CPU with a clock of 2.30ghz, part of the 5000 series. The robust processing capacity of this processor is essential for efficiently handling the computational requirements of our project. When paired with 8GB of RAM, our machine will have enough memory to support multitasking and easily handle large datasets. A 512 GB SSD (Solid State Drive), which enhances system performance overall and offers faster data access rates, will Also be included. A64-bit OS X64 HP Processor will power our system in order to optimize Performance and guarantee interoperability with modern apps. With these hardware perquisites met, we can confidently begin our project because we know that our system can effectively and efficiently manage the demands of our work.

S.no.	Specification	Description
1.	Processor	AMD Ryzen 5 in 5000 series 2.30 GHz
2.	RAM	8GB
3.	Hard disk drive	512 GB
4.	System	64bits OS X64 H-Processor
5.	SSD	512

(b) **Software Requirement:** We are searching for individuals with expertise in a range of technologies that are essential to our project. Specially, we are looking for Candidates with front-end programming experience who can use HTML, CSS, JavaScript, and Bootstrap 5 to create visually appealing and responsiveness user Interfaces. To properly manage database integration and server-side logic, we Also require someone with back-end development experience, specifically React MongoDB with Node.js is strongly recommended for control-end tasks. The Selected professionals will play a crucial role in the development of our project, contributing their expertise to ensure its success and growth. For our team to do the project, multi-technologist proficiency is essential. User Interface designers that are proficient in HTML, CSS, JavaScript, and Bootstrap5 are required. To manage server logic and seamlessly integrate databases,

S.no.	Specification	Description
1.	Front-end	HTML, CSS, React, Bootstrap5
2.	Back-end	Node Js, Express
3.	IDE	Visual Studio Code
4.	Other application	Browser, Visual Studio
5.	Operating System	Window 11

2.2.3 Behavioral feasibility study

it is commonly knowledgeable that coordination and strategy creation are necessary for the maintenance of behavioural feasibility studies.

(a) The team leader and members had been meeting on a regular basis. Takes some of their ideas and put them into practice.

(b) In order to employ this technological help, we can additionally offer training. Give a description of the new system's user training timetable. Shared the strategy for ongoing support and upkeep.

(c) Experts or specialists met with team twice a month to ensure optimum participation and satisfaction during our growth process. They review each team member's activity and offer improved solutions to address their concern.

(d) Ensure that the system verifies compliance with all relevant terms and conditions.

(e) Assess your training requirements to make effective use of the system. By estimating the time and resources needed for training, we make sure you are ready and enthusiastic to learn the new technology.

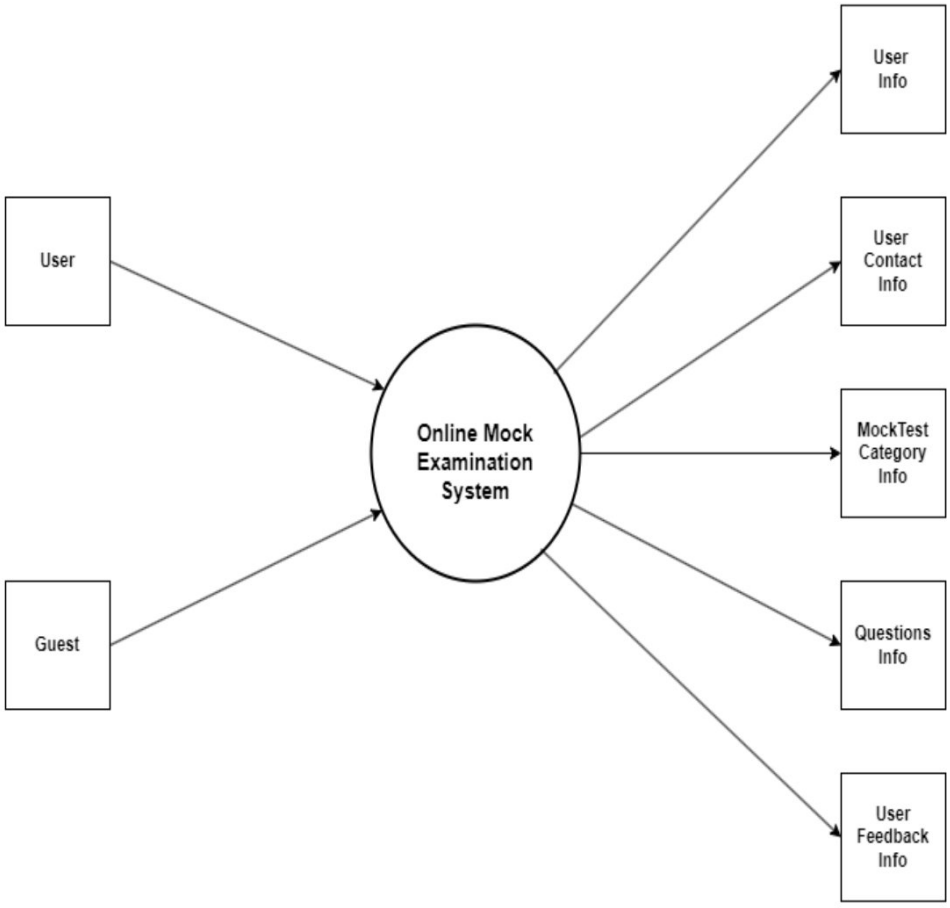
(f) Evaluate the User Interface and overall user experience to ensure that the systems are easy to use and intuitive. Bad UX might lead to lower resistance adoption rates.

(g) Examine the system's implementation's financial consequences, considering factors like development costs, training costs, and expected benefits. Should control our spending and activities in order to keep the overall budget to a minimum.

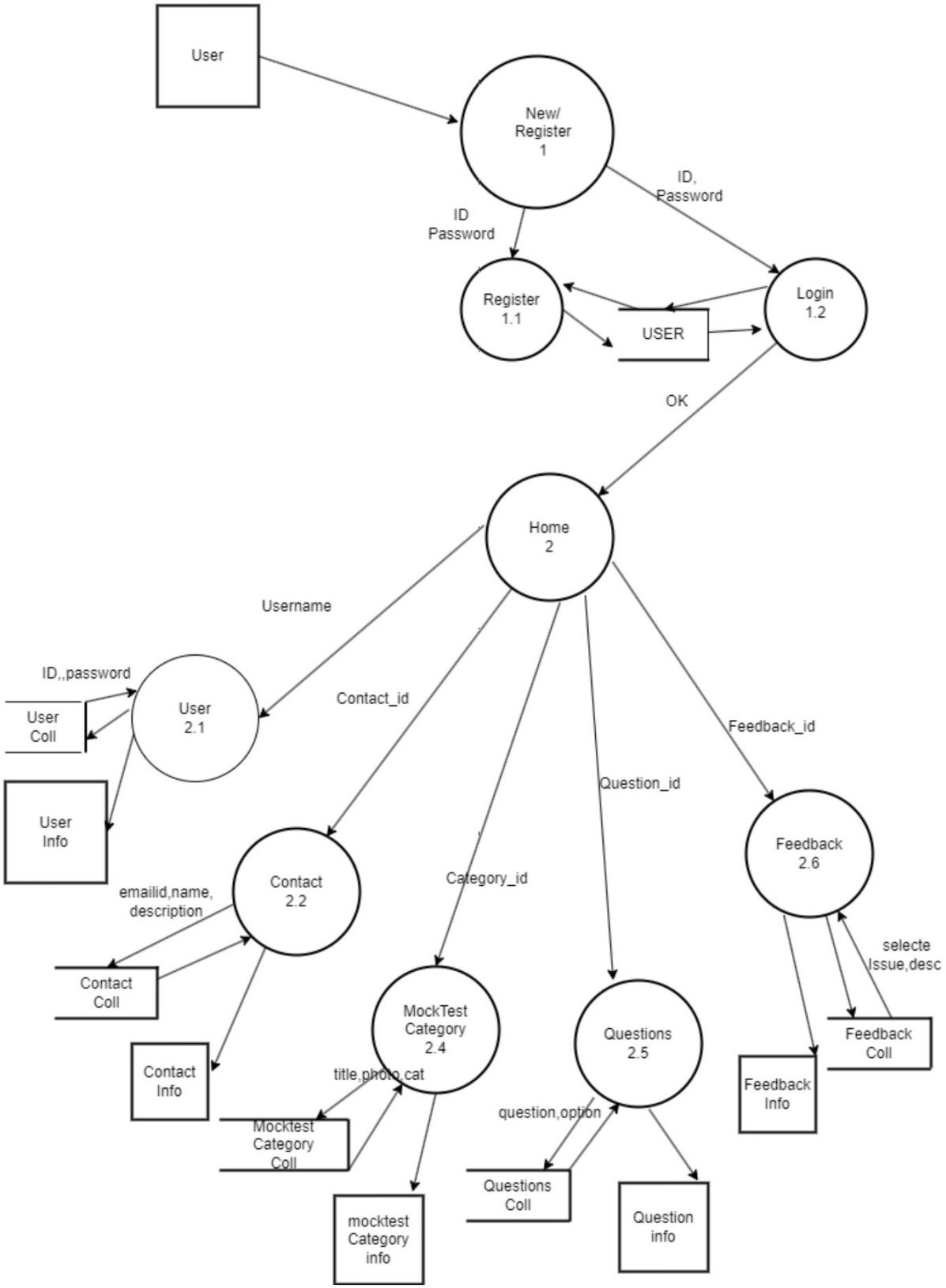
(h) Our Services is available 24/7, allowing Users to access information and services at any time.

2.3 Data Flow Diagram

2.3.1 DFD 0

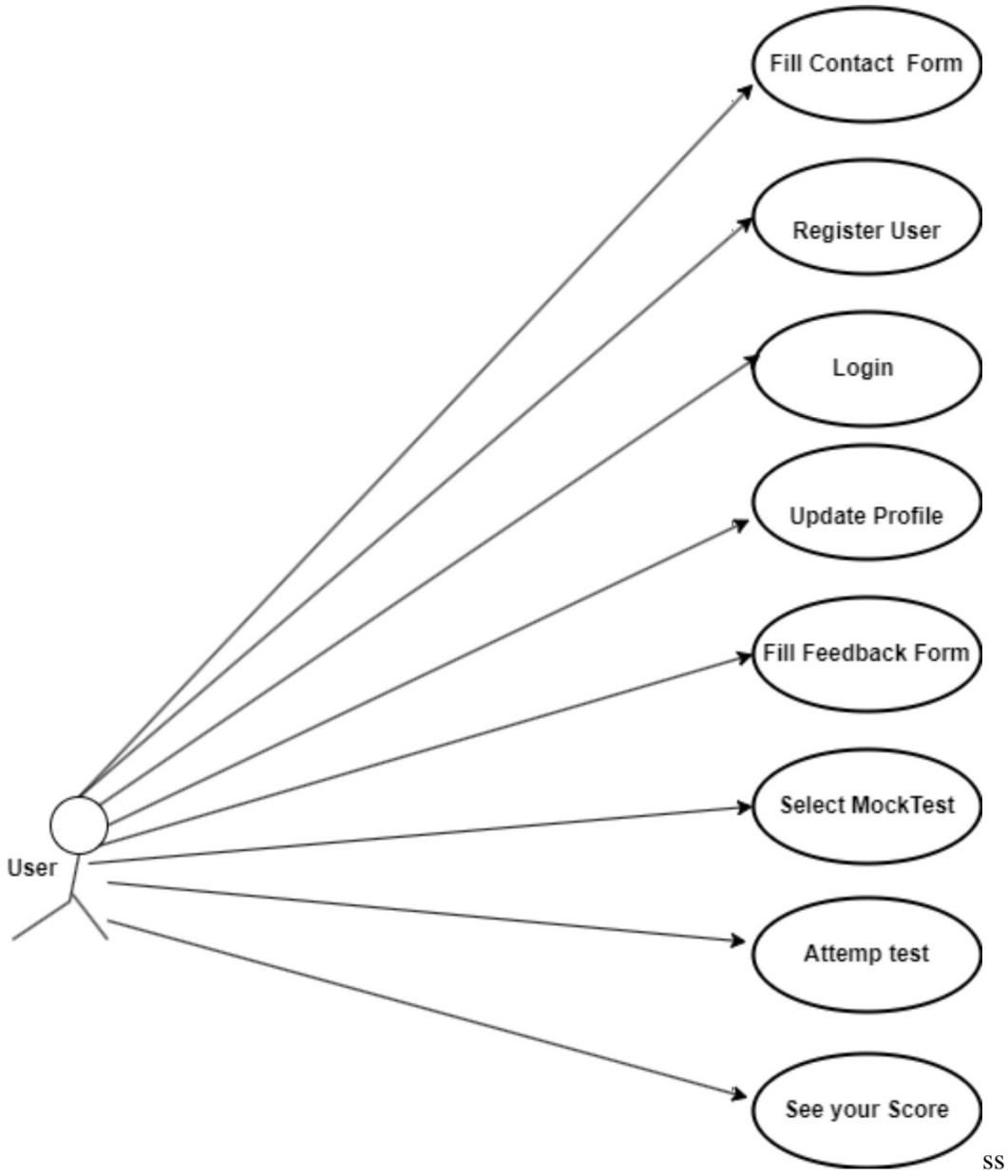


2.3.2 DFD 1 For User



CHAPTER 3: SYSTEM DESIGNS

3.1 Use Case Diagram



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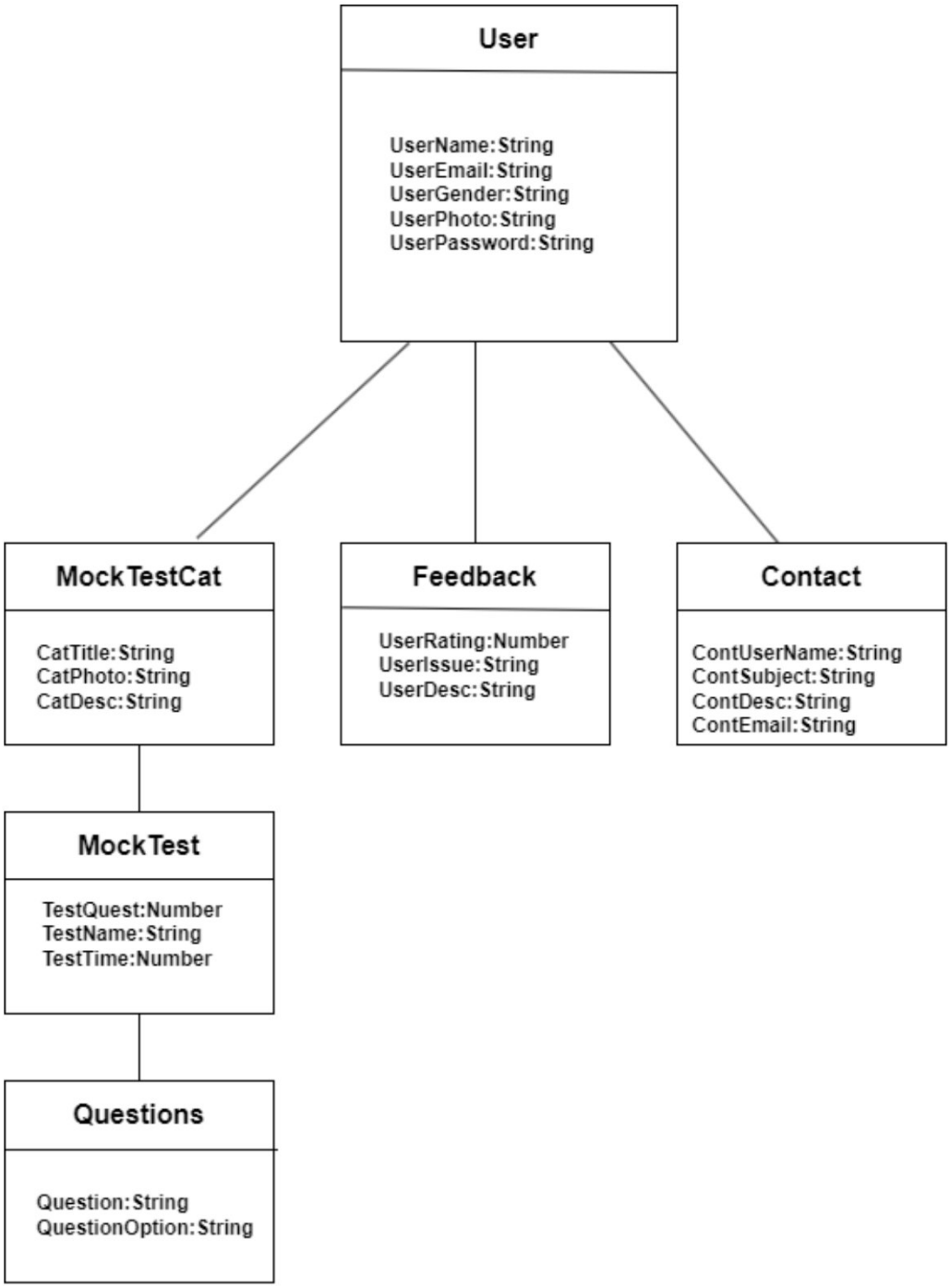
3.2 Structure Diagram



CHAPTER 4: TESTING

Testing is the process of assessing a software application's functionality in order to determine whether or not the generated software satisfies the requirements and to find defects so that the final result is free of flaws and of high quality. Thus, in order to determine whether or not the produced system satisfies the requirements, we are employing Four testing.

4.1 Unit Testing

In unit testing we check all the small pieces of the code and we also check each and every module of the Result Complaint Tracking System individually before integrating the module of the system in order to ensure that the individual part of the system works properly on their own.

Test Case	**Section**	**Element name**	**Test Data**	**Expected Result**	**Actual Result**
T1	Login	Email, Password	No data	Error: Fill all fields	Passed
		Email, Password	dhakadvijaygmail.com Pass@12	Error: Wrong input	Passed
		Email, password	dhakadvijay2684@gmail.com Pass@1234	Logged in	Passed
T2	Register	Name, Gender, Email, Password, Photo	empty field	Error: Fill all fields	Passed
		Name, Gender, Email, Password, Photo	Vijay Dhakad, Male, Dhakadvijay2684gmail. Com, Vijay@12, img.jpg Data is correct Format	Error: Wrong input	Passed
		Name, Gender, Email, Password, Photo	Vijay Dhakad, Male, Dhakadvijay2684@gmail. Com, Vijay@123, img.jpg	Registered Successfully	Passed

T3	Feedback	Rating, Message	Empty field	Error: Fill all fields	Passed
		Rating, Message	Rating-3, Hlo sir I was Very nice	Feedback submitted	Passed
T4	Category	Category name, description, photo	empty field	Error: Fill all fields	Passed
		Category name, description, photo	HDFC, this test related to all bank, img.jpg	Error: Wrong input	Passed
		Category name, description, photo	Railway, this test is related to all exams of railway	Category added	Passed

4.2 Validation Testing

Validation testing is the next step of testing. His test runs the entire software. The citation record The purpose of this process is to determine if the software satisfies the requirements specified in the requirement document. The software's ability to operate as a package is reflected in and determined by the requirement by the requirement specification.

4.3 Alpha Testing

One kind of software testing procedure used early in the development process is called alpha testing. A software prototype is created during this process and external users. This testing procedure aims to appraise and appraise the software's performance, functionality, efficiency, and quality. In the alpha testing done by the internal employees.

4.4 Recovery Testing

Software testing that assesses a system's capacity to bounce back from error or disruptions is known

as. Recovery testing. Recovery testing's first goal is to make that the programmer can carry on as usual and recover gracefully in the event of unforeseen circumstances, such as hardware malfunctions, network outages, software crashes, or other system problems.

CHAPTER 5: IMPLEMENTATION

Basic Modules and Libraries of MERN (MongoDB, Express.js React.js Node.js) Stack Used in Projects:

1. **MongoDB:** A NoSQL database focused on documents that keeps data in an adaptable, JSON-like format.
2. **Express.js:** A Node.js web applications framework that manages middleware and routing and makes the building of backend APIs Easier.
3. **React.js:** An interactive and reusable component creation tool for JavaScript user interface development.
4. **node.js:** A runtime environment that enables the building of scalable and fast backend applications by running JavaScript code on the sever side.
5. **mongoose:** An ODM(Object Data Modeling) module for MongoDB that offers a simple interface for defining data structures and interacting with the database
6. **Bcrypt:** A password hashing and encryption library that is frequently used for safe password storing and verification.
7. **cors:** A middleware for Express.js that permits Cross-origin Resource sharing (CORS), Which is necessary to manage requests from the frontends to the backend in a MERN application. It permits regulated access to resources from many origins.
8. **dotenv:** A module that allows the safe and practical configuration of application settings and sensitive data by loading environment variables from a.env file into process.env.
9. **Axios:** A well-known HTTP client library that makes asynchronous HTTP requests from Node.js and browsers easier to make.
10. **React Router:** A React routing module that facilitates routing navigation inside a single-page application, enabling components to be dynamically rendered according to the URL.
11. **JWT (Json Web Tokens):** Frequently used for authorization and authentication in MERN applications, JWT is a safe way to send data between parties as a JSON object.
12. **React-Bootstrap:** A library that offers pre-styled Bootstrap elements and tools for creating React user interfaces that are both visually appealing and responsive.
13. **react-router-dom:** The most recent iteration of the React Router toolkit, tailored especially for React apps. It lets you specify routes and render various components depending on the URL that is currently being used, enabling declarative routing and navigation in single-page apps. One of the most current version, 6.7.0, offers a number of changes and enhancements to the React application's routing functionality.

5.1 Install Visual Studio Code

Visual Studio Code is a sophisticated yet lightweight source code editor available for windows, macOS, and Linux, it offers a robust ecosystem of extensions for other languages and runtimes (such as C++, C#, JavaScript, Node.js , Java, Python, PHP) and it includes built-in support for TypeScript, and Node.js.

Setting up Visual Studio Code:

(a) Open any browser and Type Visual Studio Code Download.

(b) Go to Link https://code.visualstudio.com/download.

(c) Click the option Download.

(d) Select a folder by Clicking Browser or just follow the default path.

(e) Then Select Next.

(f) Select the required options as per your need by clicking in the checkbox.

(g) Then Select Next.

(h) Select Install.

(i) Clicking Finish to exit Setup.

5.2 Node js Installation

Installing the node.js framework is the first step towards constructing your Node.js applications. Windows, Ubuntu, and OS X are just a few of the operating systems that support the Node.js framework. After installing the Node.js framework, you may begin developing your first Node.js applications. Through the usage of custom modules, Node.js can also include external functions or enhance its capabilities. Installing the Node.js effective libraries on the client machine is the second step in utilizing Node.js. The procedures to download and setup Node.js on windows are listed below:

(a) Download the windows Node.js Installer Visit https://nodejs.org/toen/download/ to get the required binary files.

(b) Start the installation.

(c) Proceed with the installation procedures.

(d) Accept the terms and conditions.

(e) Set up the path.

(f) Select the default components to be installed.

(g) Start the installation.

(h) Complete the installation.

5.3 MongoDB Installation

Create an Atlas Account and effective deploying a free Tier Cluster.

Step 1. Go to Register for an Atlas account at https://www.mongodb.com/cloud/atlas in order to host your data.

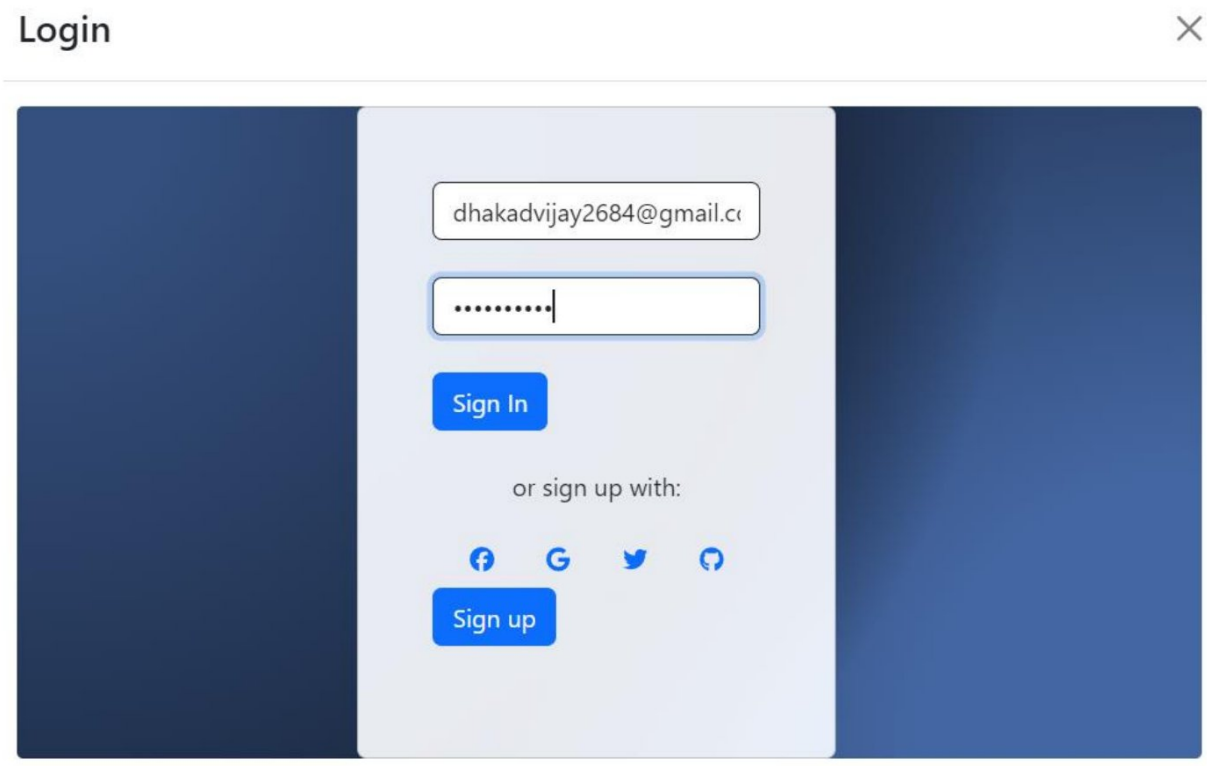
Step 2. After Selecting "Start Free," you will be taken to the MongoDB Atlas account registration page.

Step 3. Click "Create cluster" after selecting " Starter Clusters." The M0t,M2, M5h cluster. Those who are learning MongoDB or creating small proof-of-concept apps can benefit from these can benefit from these inexpensive.

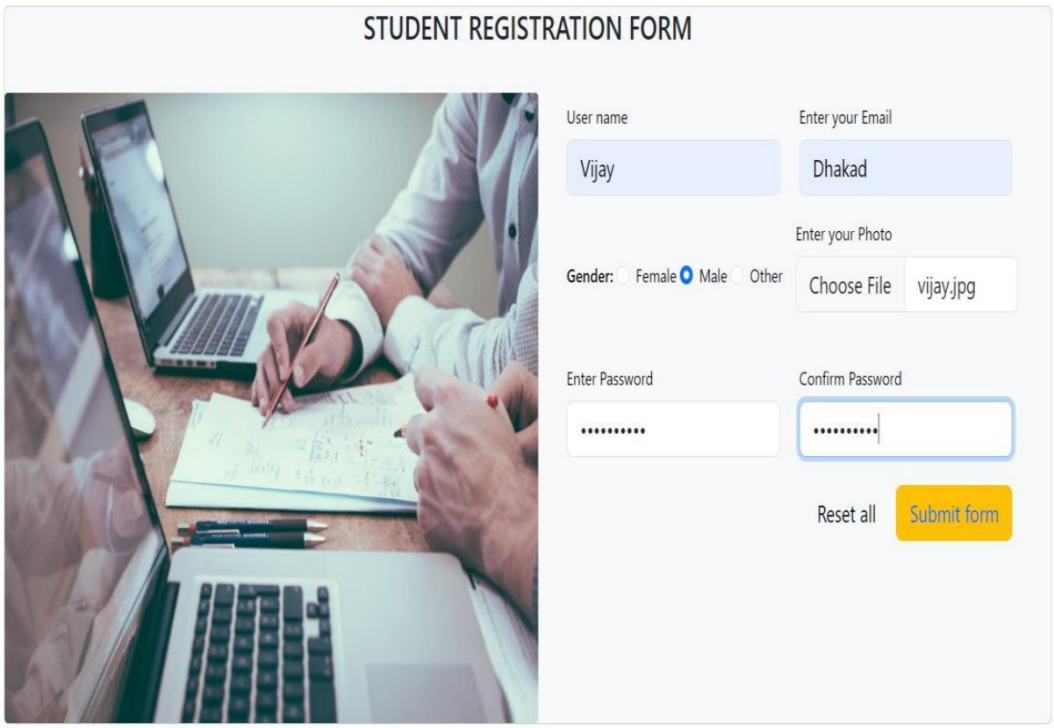
Step 4. It supports M0 Free Tier clusters on Google Platform (GCP), Microsoft Azure, and Amazon web Services (AWS). The regions that support M0 free tier clusters are indicated by the " Free Tier Available" Label.

CHAPTER 6: SAMPLE FORMS AND REPORT

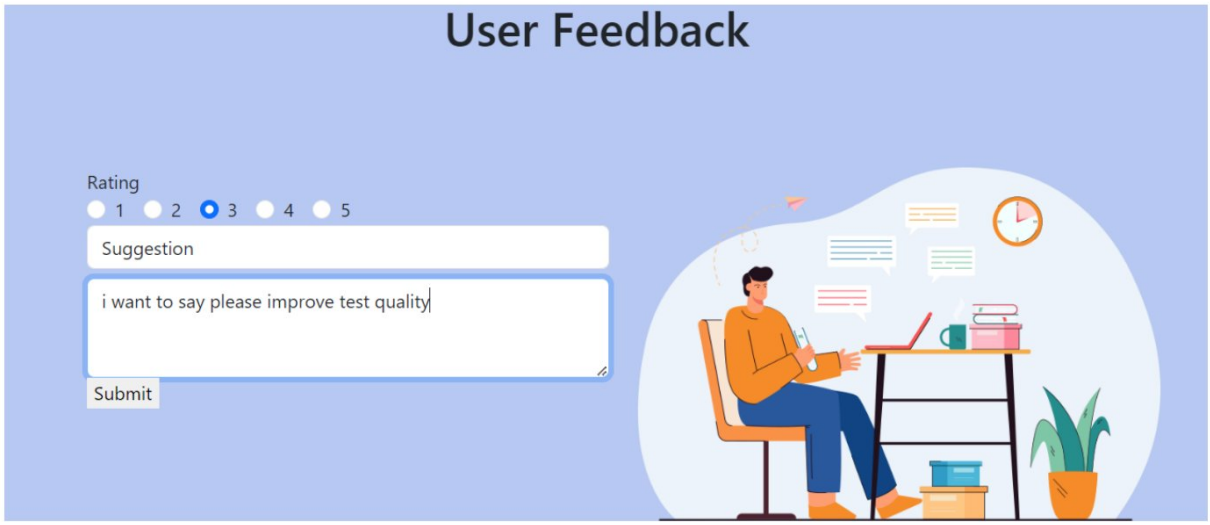
(a) Login Form



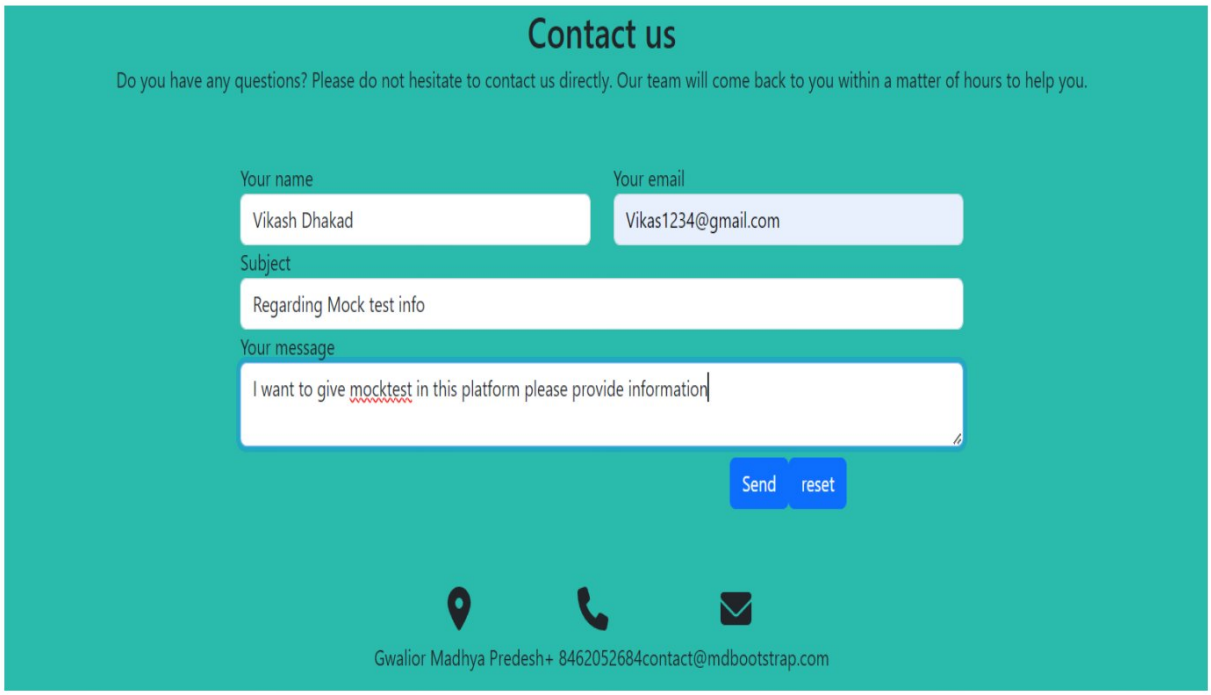
(b) Sign Up Form



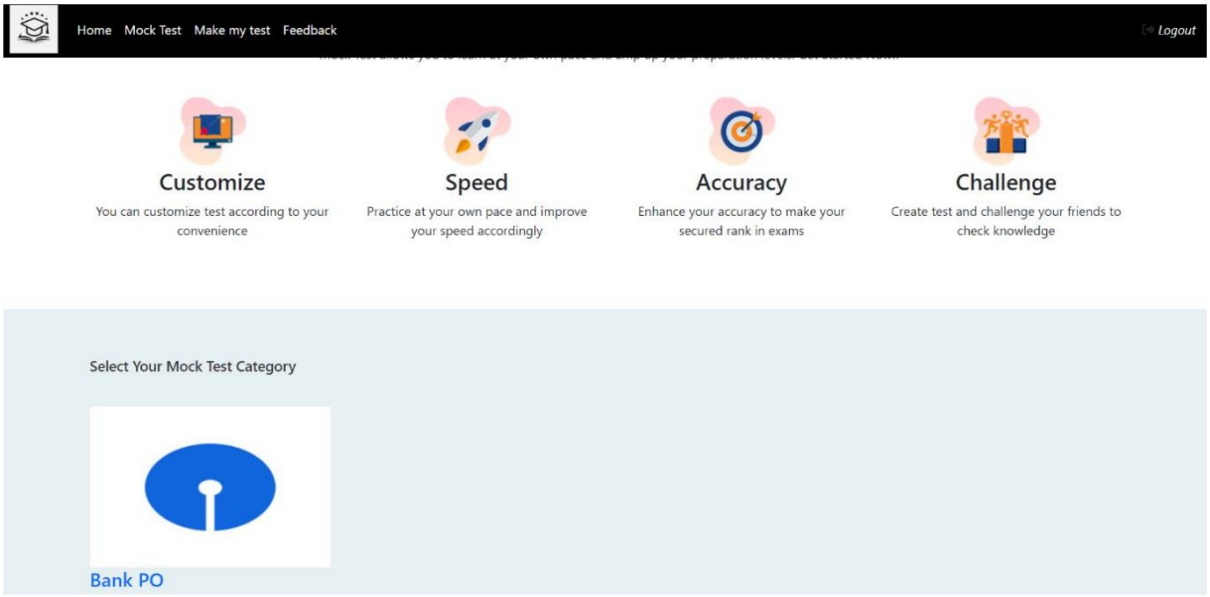
(c) Feedback Form



(d) Contact Form



(e) Mock Test Category



CHAPTER 7: CONCLUSION AND FUTURE SCOPE

In Conclusion, the use of an online mock exams system providers educational institutions and students with a number of benefits. First of all, it gives students a handy and easily available platform to rehearse and get ready for tests, enabling them to become used to the structure and timing of evaluations. A decrease in anxiety and an improvement in performance during the exam itself can result from this improved familiarity. Additionally, rapid feedback and performance analysis made possible by an online system help students pinpoint their areas of weakness and better target their revision efforts.

Second, an online mock exam system can simplify assessment procedure and lessen administrative work for educational organizations. Teacher can save a lot of time and money by automating processes like test creation, distribution, and grading. This extra time and money
Can then be used to help and instruct pupils.

Future Scope

Looking ahead, it appears that online mock exams will continue to grow and develop in a number of important domains. First off, the way these system function could be completely changed by developments in machine learning (ML) and artificial intelligence (AI). More individualized feedback, adaptive question creation based on student performance and advanced analytics to identify specific learning needs are all potential benefits of AI- powered assessments tools.

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(d) https://react-icons.github.io/react-icons/

(e) https://www.npmjs.com/

(f) https://stackoverflow.com/

(g) https://www.youtube.com/

(h) https://www.w3schools.com/

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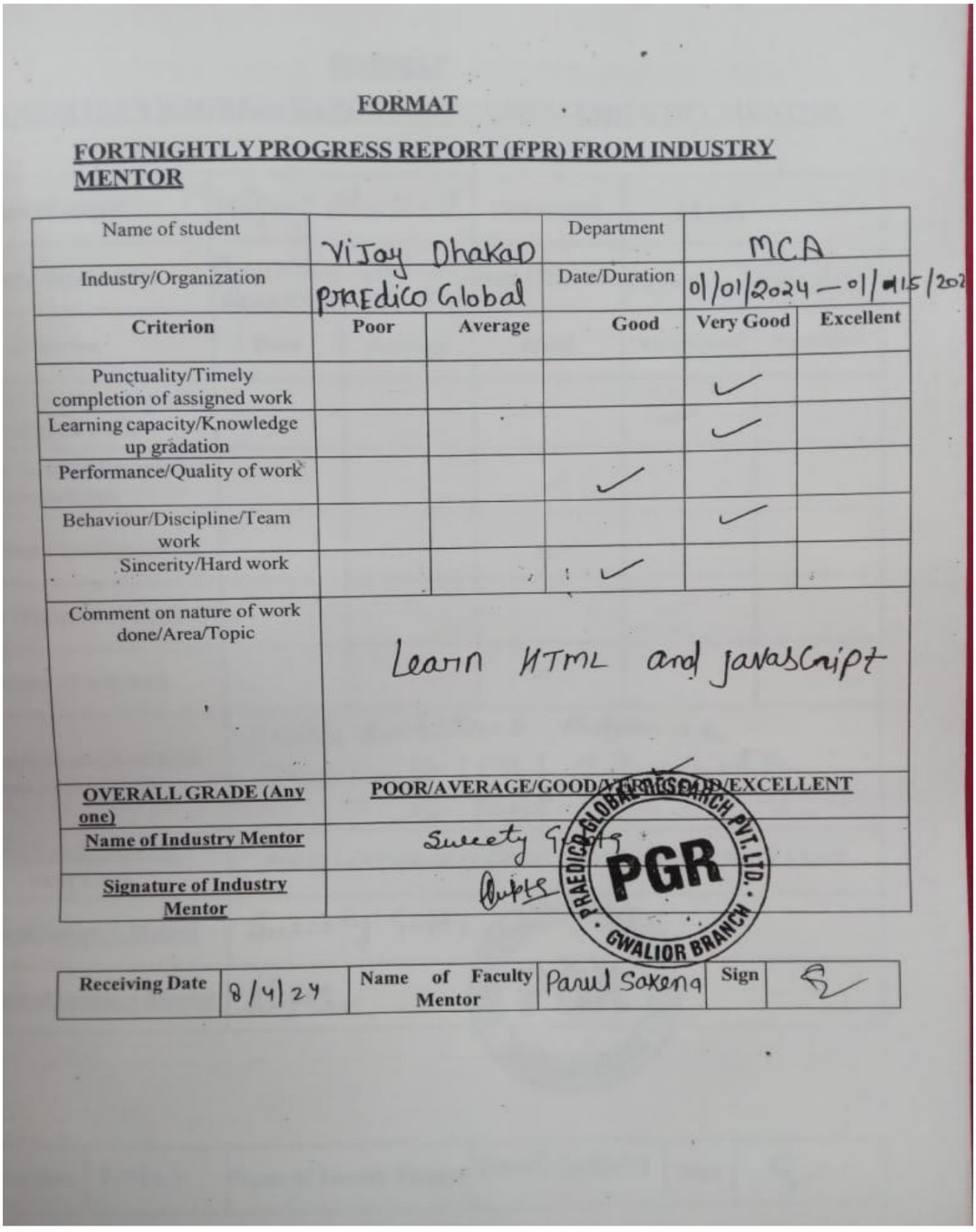
Summary

FORTNIGHTLY PROGRESS REPORT



FORMAT

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Vijay Dhakad		Department	MCA	
Industry/Organization	PRAEDICO Global		Date/Duration	01/01/2024 – 01/15/202	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work			✓		
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work			✓		
Comment on nature of work done/Area/Topic	Learn HTML and JavaScript				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT				
Name of Industry Mentor	Sweety Gupta				
Signature of Industry Mentor					

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Receiving Date	8/4/24	Name of Faculty Mentor	Parul Saxena	Sign	

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FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Vijay Dhakad		Department	MCA	
Industry / Organization	Praedico Global Research Pvt. Ltd		Date / Duration	16/01/24 - 31/01/24	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality / Timely completion of assigned work				✓	
Learning capacity / Knowledge up gradation			✓		
Performance / Quality of work			✓		
Behavior / Discipline / Teamwork				✓	
Sincerity / Hard work			✓		
Comment on nature of work done / Area / Topic	Learn Bootstrap, Advance Javascript (ES6), Introduction of React				
OVERALL GRADE (Any One)	POOR / AVERAGE / GOOD / VERY GOOD / EXCELLENT				
Name of Industry Mentor	Sweety Gupta				
Signature of Industry Mentor	Gupta				

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Name of student	Vijay Dhakad		Department	MCA	
Industry/Organization	Praedico Global Research Pvt. Ltd.		Date/Duration	01/02/24-15/02/24	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work			✓		
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work			✓		
Comment on nature of work done/Area/Topic	React setup, components, Hooks, Props and React Bootstrap Integration				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Sweety Gupta				
Signature of Industry Mentor	Gupta				

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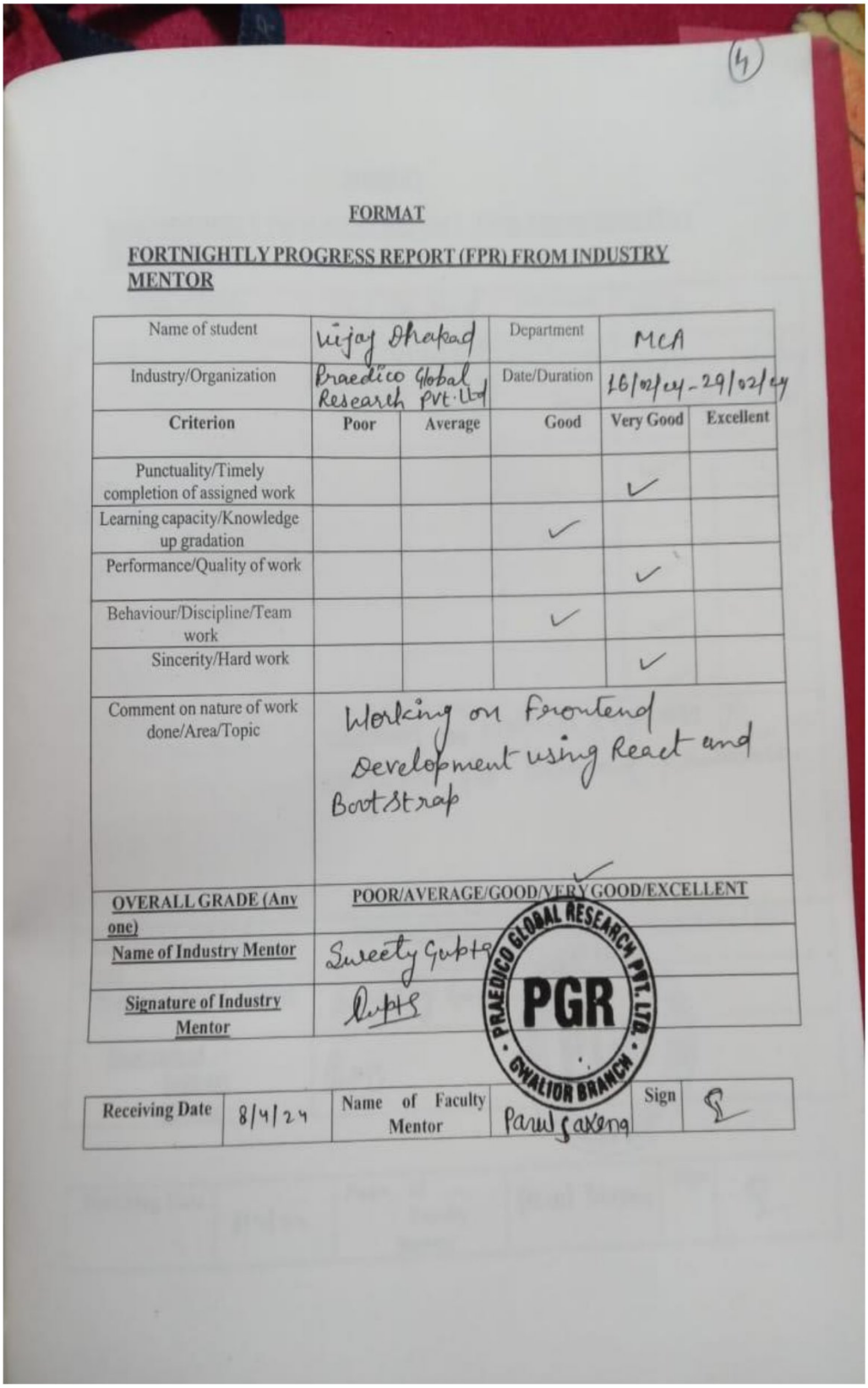

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Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work				✓	
Behaviour/Discipline/Team work			✓		
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	Working on Frontend Development using React and BootStrap				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT ✓				
Name of Industry Mentor	Sweety Gupta				
Signature of Industry Mentor	Gupta				

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Industry/Organization	Praedico Global Research Pvt. Ltd		Date/Duration	01/03/24 - 15/03/24	
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Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work				✓	
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	Worked on Node Js, Express Js, Mongo DB for Backend & DataBase				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT ✓				
Name of Industry Mentor	Sweety Gupta				
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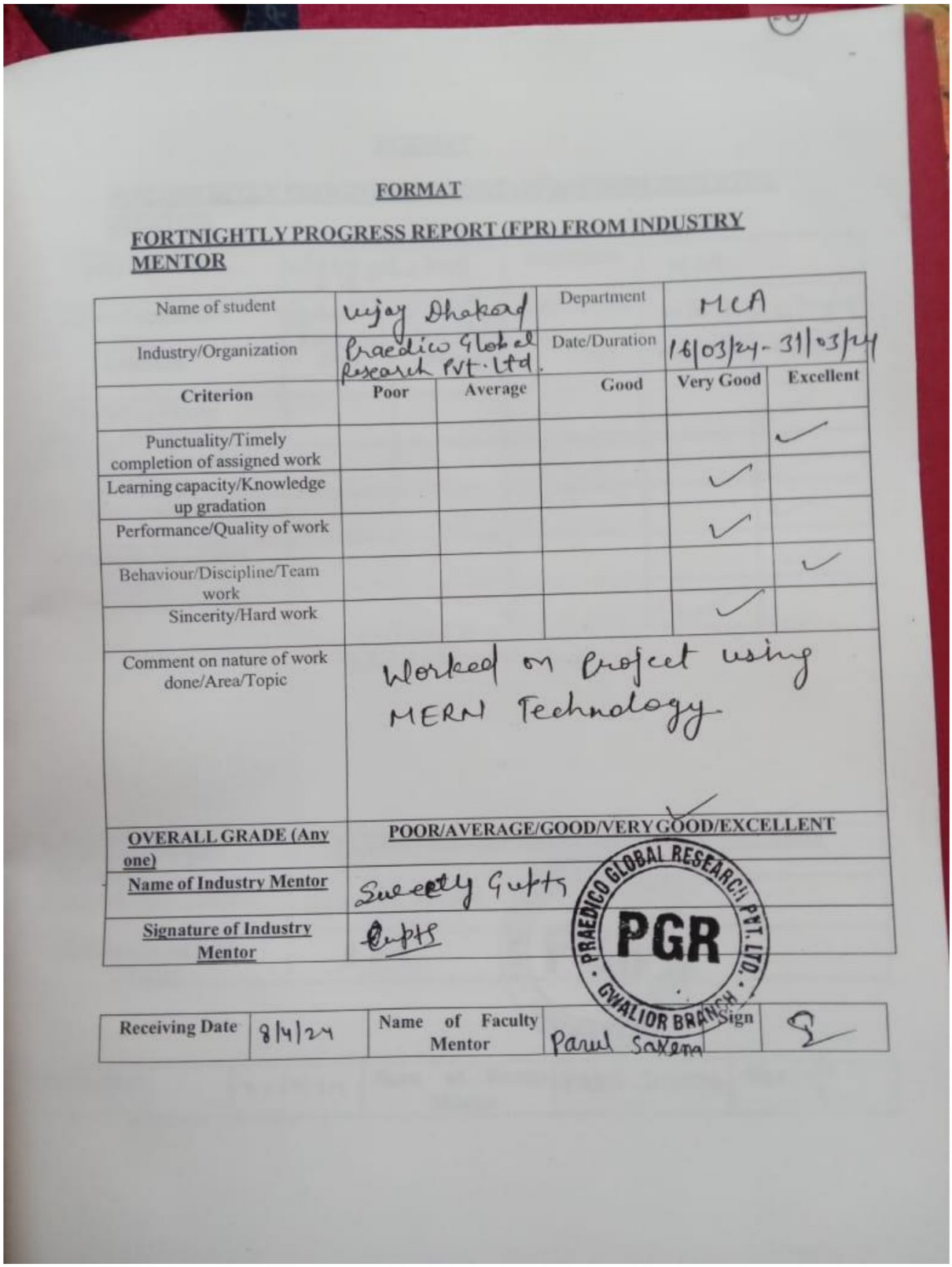

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Comment on nature of work done/Area/Topic	Worked on Project using MERN Technology.				
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Signature of Industry Mentor	Gupta				

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