November 2022

Quiz Web Application

A Project Report

Submitted by

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in partial fulfilment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

Computer Science and Application

GLA University, Mathura

November 2022

BONAFIDE CERTIFICATE

Certified that this project report “Quiz Web Application” is the bonafide of “Shashank Chaudhary and Khushi Sharma” who carried out the project work under Mr.Bhanu Kapoor Technical Trainer.

Signature of HOD

Name of HOD: Mr.Rohit Agrawal

Signature of Supervisor

Name of Supervisor: Mr.Bhanu Kapoor

Training Certificates

udemy

Certificate no: UC-34f81bb7-8914-4180-80c1-53d0d39884c1
Certificate url: ude.my/UC-34f81bb7-8914-4180-80c1-53d0d39884c1
Reference Number: 0004

CERTIFICATE OF COMPLETION

The Complete Web Developer in 2022: Zero to Mastery

Instructors **Andrei Neagoie, Zero To Mastery**

Shashank Chaudhary

Date **24 Jul 2022**
Length **38 total hours**

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Acknowledgement

It gives us a great sense of pleasure to present the synopsis of the B.Tech mini project undertaken during B.Tech III Year. This project is going to be an acknowledgement to the inspiration, drive and technical assistance will be contributed to it by many individuals. We owe special debt of gratitude to Mr. Mandeep Singh, Technical Trainer , for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towards a constructive goal and for his constant support and guidance to our work.

His sincerity, thoroughness and perseverance has been a constant source of inspiration for us. We believe that he will shower us with all his extensively experienced ideas and insightful comments at different stages of the project & also taught us about the latest industry-oriented technologies. We also do not like miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind guidance and co-operation.

Abstract

"Quiz Application" is a collection of number of different types of quizzes like technical, games, sports, etc. A user can access/play all of the quiz and can attempt any of the one. There will be limited number of questions and for each correct answer user will get a credit score. User can see answers as well as can ask a query related to it. There are many quiz applications available currently on internet. But there are few Which provide better understanding between users and the application like, providing proper answers, user query solving, uploading user questions as well as answer to it, etc. To develop a user friendly quiz application which will contain : Numbers of quiz , Answers to every question, Query solving regarding any question, Uploading of user question and answer , and to improve the knowledge level of users. To develop a application which will contain solution to the above problems. By this application the user will come to know about his/her level and can learn additional knowledge. Also by this application a user can expand his/her knowledge among the world.

CHAPTER-1

INTRODUCTION

1.1 CONTEXT

This Web Application “Quiz” has been submitted in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering at GLA University, Mathura supervised by Mr.Bhanu Kapoor. This project has been completed approximately one months and has been executed in modules, meetings have been organised to check the progress of the work and for instructions and guidelines.

1.2 MOTIVATION

Our aim is to develop a application for the users in which a user can attempt any number of quiz related to his/her choice. This web application provides facility to Play online quiz and practice computer science subjects related question. It provides a good platform, where a student not only judges there knowledge/skill but also they can improve knowledge/skill at the same time. Scope The Scope of this project is very broad in terms of gaining knowledge and sharing knowledge among world. Few points are can be used anywhere any time as it is a web based application. This application will be used in educational institutions as well as in corporate world.

1.3 OBJECTIVE

This web application provides facility to play online quiz and practice computer science. It provides a good platform, where a student not judges their knowledge but also they can improve the skill at the same time. The scope is very board in terms of gaining knowledge. It helps the users for the preparation of necessary educational purposes regarding computer science subject. And this application can be used anywhere any time as it is a web based application.

1.3 SOURCES

The source of our project (including all the project work, documentations and presentations) will is available at the following link .

Shashankch14/Quiz_Web_App · GitHub

CHAPTER-2

SOFTWARE REQUIREMENT AND ANALYSIS

2.1 PROBLEM STATEMENT

Quiz Contest is a application developed to conduct an Quiz based on time constraints Quiz is started by displaying one question with four options each based on computer science related subject the answer is correct score is incremented by ten points and no negative marks for wrong answers. Quiz application will finally direct you to the score page. Final score will be displayed and updated in the local storage of browser with username. Currently, there are websites which only provide limited number of quizzes related to different computer science subject. Many websites do not have a single platform for quizzes related to computer science. We have to develop a application which can resolve all of the above problems.

2.2 HARDWARE AND SOFTWARE REQUIREMENTS

Hardware Requirements

- Processor: Ryzen 3
- RAM: 8 GB
- Operating System: Windows
- SSD: 512 GB

Software Requirements

- Visual Studio Code
- Atom
- Google Chrome Browser

2.3 FUNCTIONALITIES

The main requirement of application is to find questions and answers. The questions are fetched from Open Trivia Database. When the user can start the quiz of his/her choice. After it user can start attaining the quiz. Here user can see his/her answers are right or wrong for wrong answer the choosen option become red in color and for the correct answer it color become green. After completion of the quiz user will get credit score for each of its correct answers and for each correct answer the score increases by ten points. The score of user will be store in the local storage of browser. The test result will be provided as soon as the user complete the quiz. The order of the question changes for different users. And for any query the user can contact with the help of contact us page.

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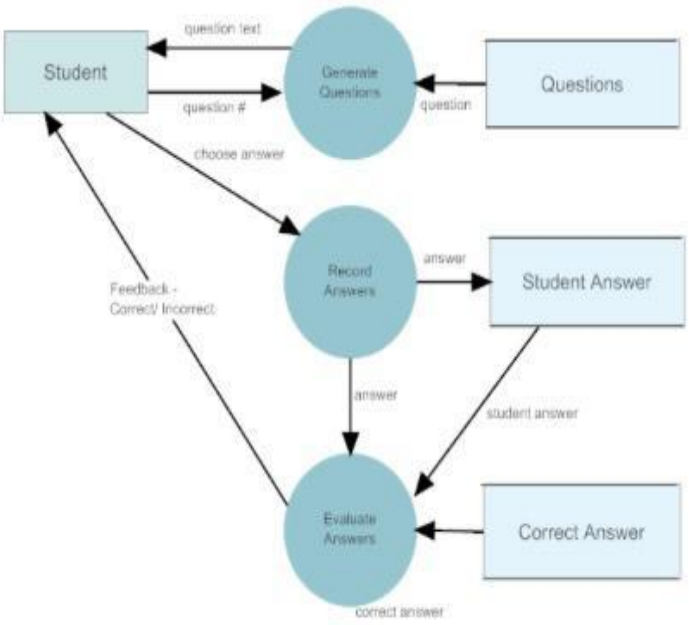
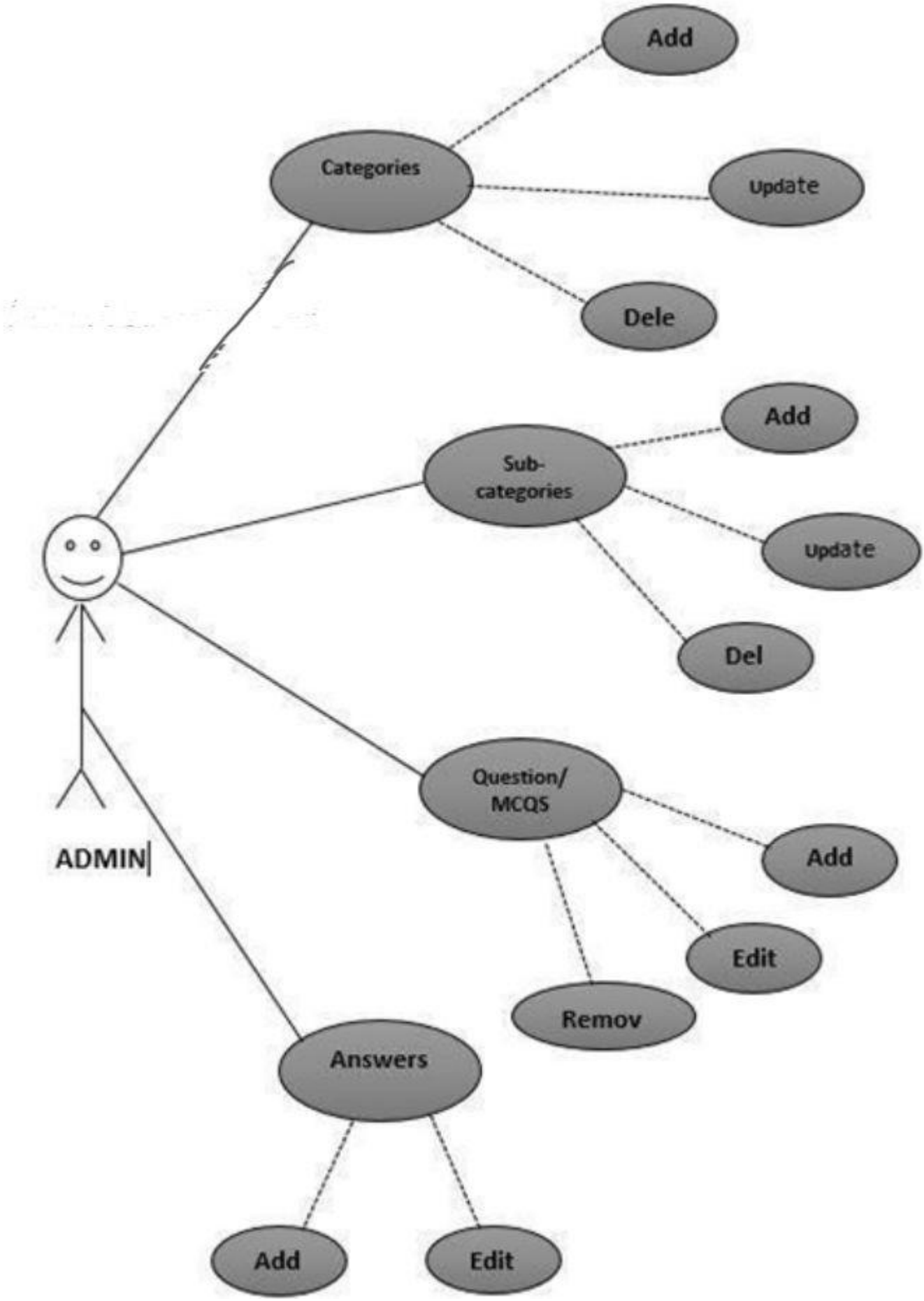
SOFTWARE DESIGN

3.1 DATA FLOW DIAGRAM:

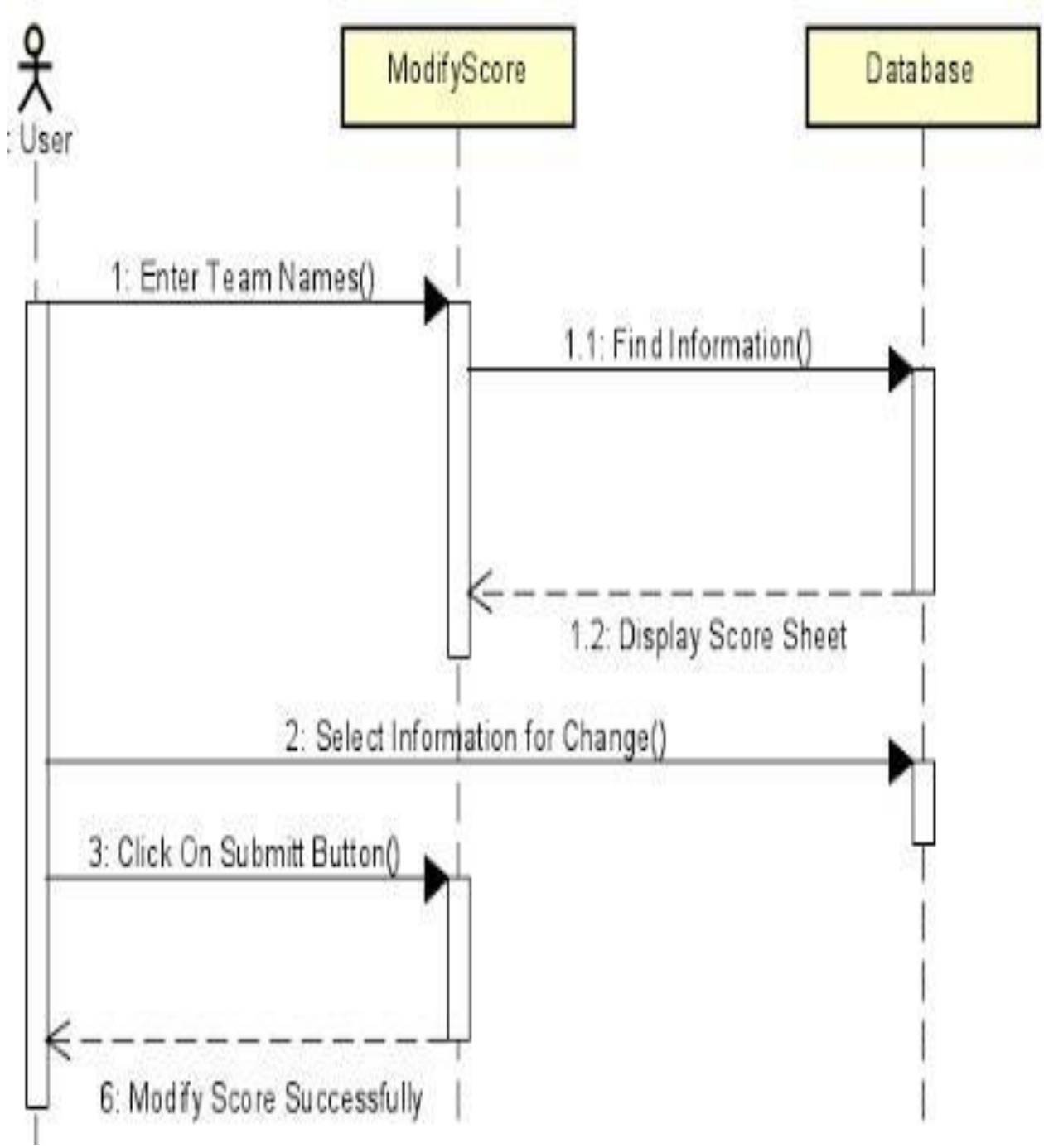


The above diagram represent that first the user start the quiz and then answer the question and for each correct answer that answer will evaluate and when the answer is correct it the answer is highlighted with green color and when the answer is wrong it is highlighted with red color and from this user come to know that his answer is right or wrong and after completing the quiz total score of the user will be display immediately. The user can contact us or give feedback in the contact us page.

3.2 USER CASE DIAGRAM



3.3 SEQUENCE DIAGRAM



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TECHNOLOGY USED

4.1 TOOLS AND LANGUAGE

Tools used to built quiz website are:-

- **Visual Studio Code:** It is, also commonly referred to as **VS Code**, is a source-code editor made by Microsoft with the Electron Framework Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.
- **Atom: Atom** is a free and open-source[6][7] text and source code editor for macOS, Linux, and Microsoft Windows with support for plug-ins written in JavaScript, and embedded Git Control. Developed by GitHub, Atom is a desktop application built using web technologies. Most of the extending packages have free software licenses and are community-built and maintained.[10] It is based on the Electron framework, which was developed for that purpose, and hence was formerly called Atom Shell.[11] Electron is a framework that enables cross-platform desktop applications using Chromium and Node.js.[12][13] Atom was initially written in CoffeeScript and Less, but much of it has been converted to JavaScript

Languages used in building an Quiz web application are:-

- **HTML:** The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages.HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

- **CSS:** Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML (including XML dialects such as SVG, MathML or XHTML).[1] CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.
- **Javascript:** JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard. It has dynamic typing, prototype-based object-orientation, and first-class functions. It is multi-paradigm, supporting event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM).
- **Open Trivia Database:** The Open Trivia Database is a free, user contributed trivia database. The Open Trivia Database API offers a specified number of trivia questions via category, difficulty, type, encoding.

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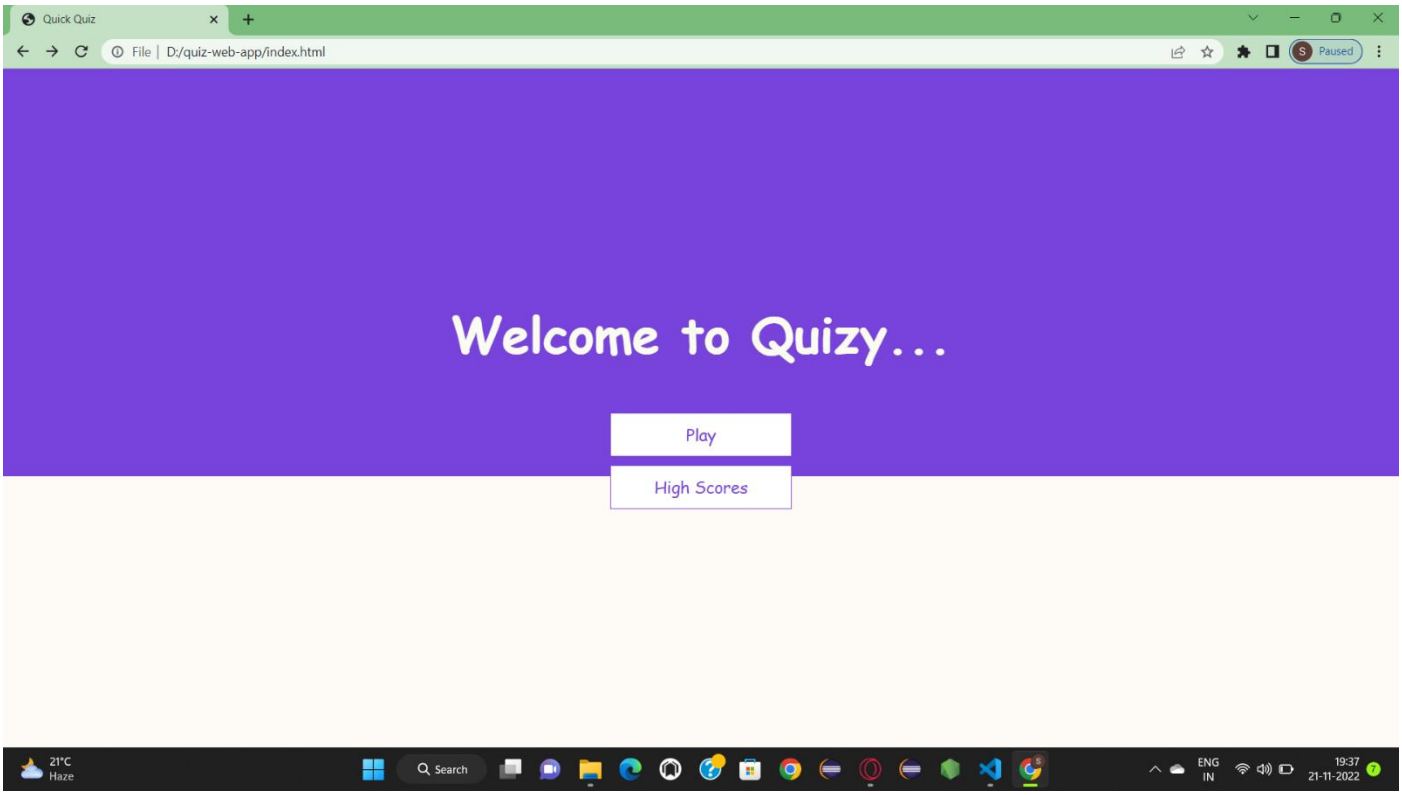
IMPLEMENTATION AND USER INTERFACE

5.1 IMPLEMENTATION OF QUIZ WEB APPLICATION

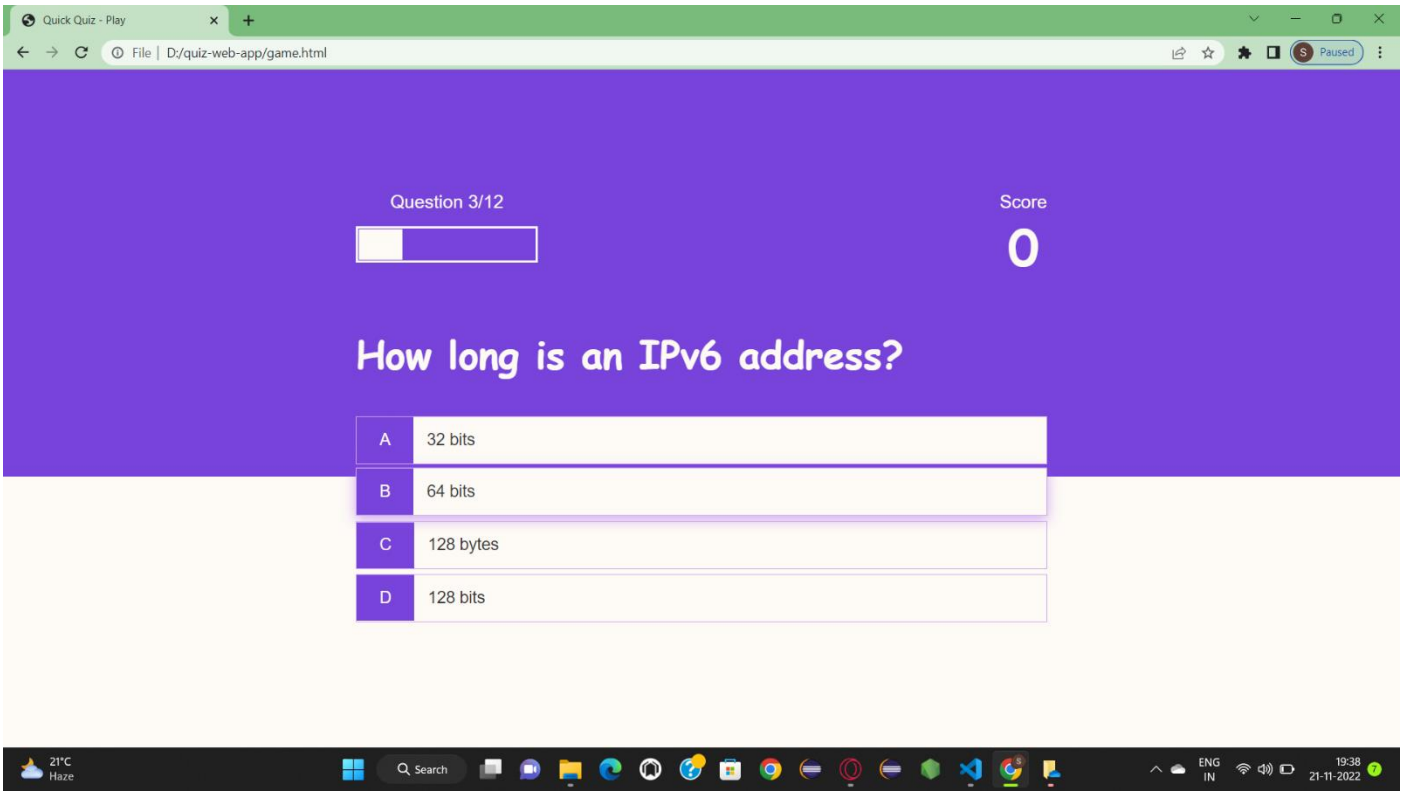
Implementation of Quiz Web Application is taken place in various phase.Firstly we build the home page from where user can start the quiz after clicking on play button the questions will be appeared on user screen. The Trivia API provides random trivia from a database containing hundreds of thousands questions and answers about science, literature, philosophy and other fascinating topics. The Open Trivia Database is a free, user contributed trivia database. The Open Trivia Database API offers a specified number of trivia questions via category, difficulty, type, encoding.

5.2 USER INTERFACE

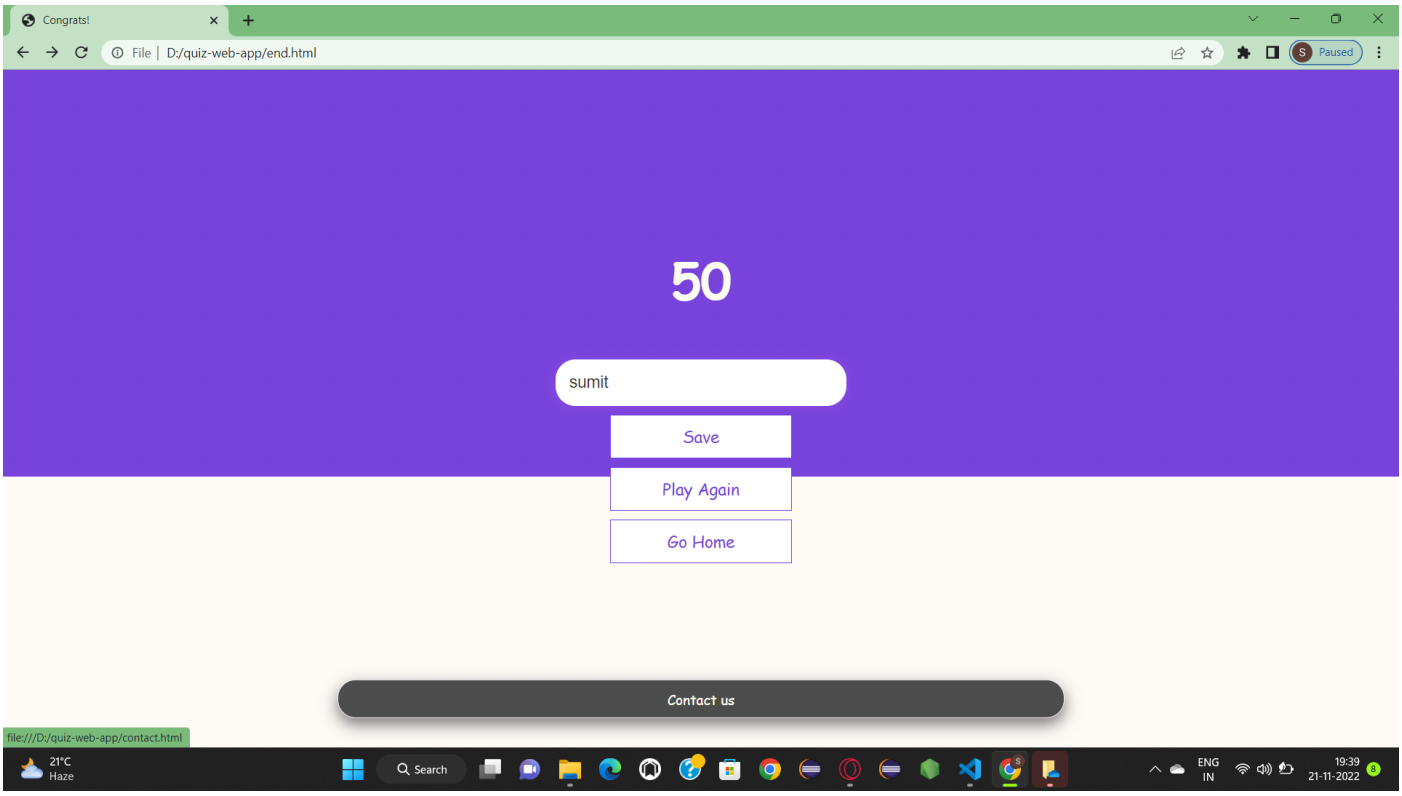
- Start panel



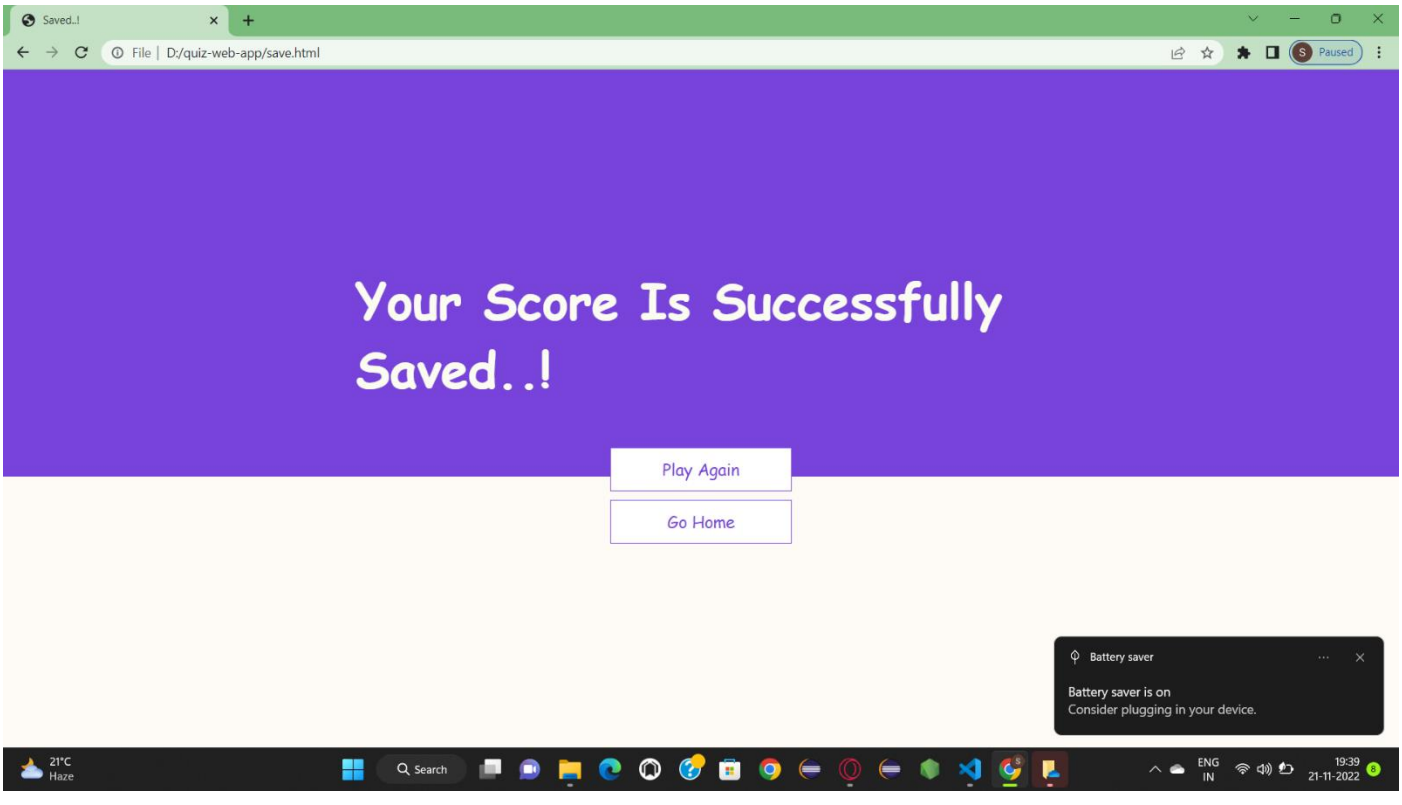
- Question Page



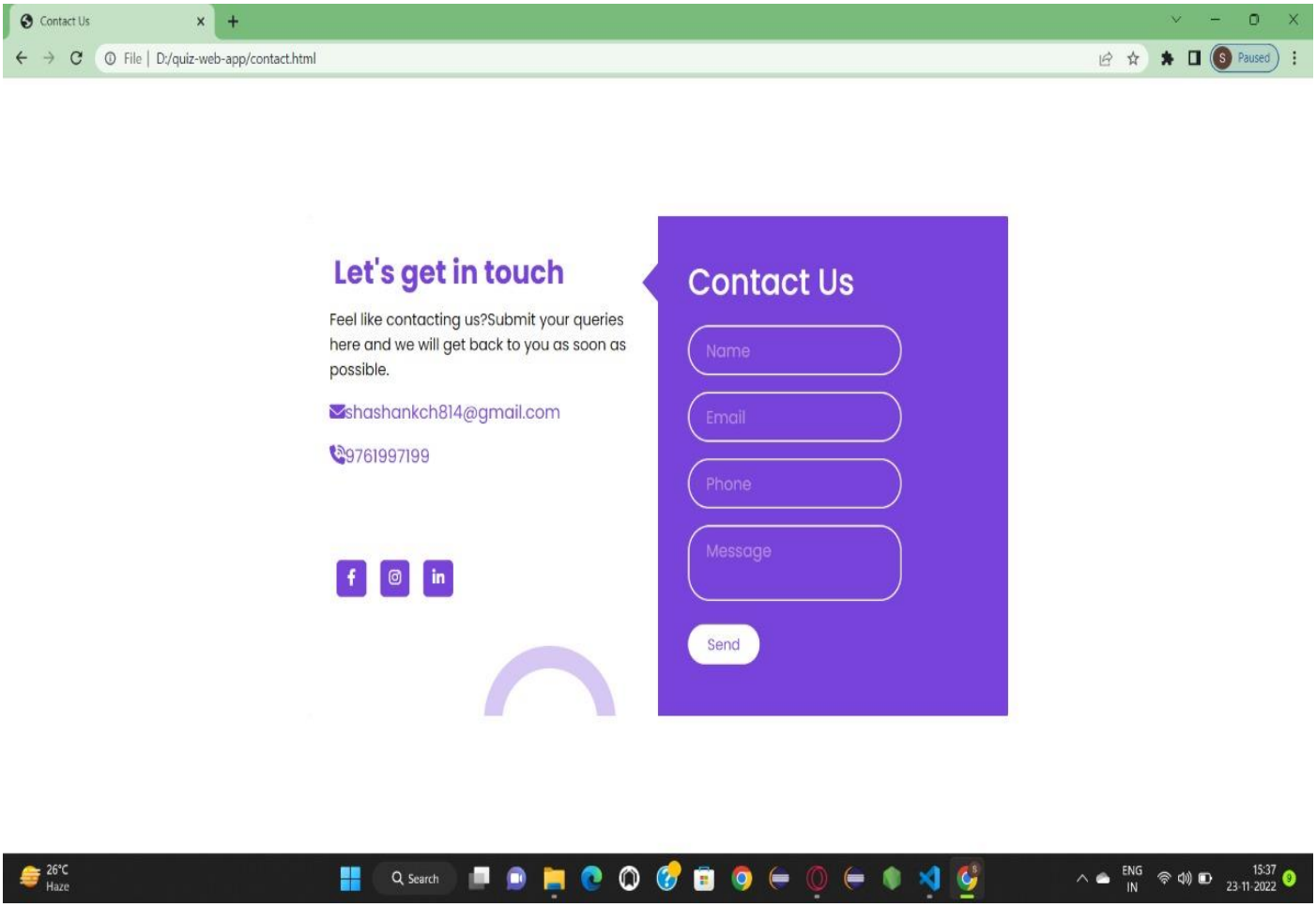
- Result Page



- End Page



- Contact Us Page



CHAPTER-6

TESTING

6.1 UNIT TESTING

The term unit testing comprises the sets of tests performed by an individual programmer prior to integration of the unit into a larger system. A program unit is usually small enough that the programmer who developed it can test it in great detail, and certainly in greater detail than will be possible when the unit is integrated into an evolving software product. In the unit testing the programs are tested separately, independent of each other. Since the check is done at the program level, it is also called program teasing.

6.2 MODULE TESTING

A module and encapsulates related component. So can be tested without other system module.

6.3 SUBSYSTEM TESTING

Subsystem testing may be independently design and implemented common problems are sub-system interface mistake in this checking we concenton it. There are four categories of tests that a programmer will typically perform on a program unit.

6.4 FUNCTIONAL TEST

Functional test cases involve exercising the code with Nominal input values for which expected results are known; as well as boundary values (minimum values, maximum values and values on and just outside the functional boundaries) and special values.

6.5 PERFORMANCE TEST

Performance testing determines the amount of execution time spent in various parts of the unit, program throughput, response time, and device utilization by the program unit. A certain amount of avoid expending too much effort on fine-tuning of a program unit that contributes little to the overall performance of the entire system. Performance testing is most productive at the subsystem and system levels.

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CONCLUSION

This online quiz application provides facility to play quiz anywhere and anytime. It save time since user does not need to wait for result. The marks of the user will be calculated according to the questions they attempt and will be displayed by the system.All student/user get extra knowledge and skills.

REFRENCES

Books:

- Web Design With HTML,CSS,Javascript,and jQuery Set
- Learn to Code HTML & CSS by Shay Howe
- Eloquent Javascript by Marijn Haverbeke

Websites:

- www.geeksforgeeks.com
- www.google.com
- www.w3schools.com
- www.slideshare.net.com