PROJECT REPORT

SUBMITTED TO THE
CUMMINS COLLEGE OF ENGG. FOR WOMEN, PUNE

SUBMITTED BY

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DEPARTMENT OF COMPUTER ENGINEERING

MKSSS's
Cummins College of Engineering for Women, Pune
(An Autonomous Institute Affiliated to Savitribai Phule Pune University

CERTIFICATE FOR COMPLETION OF INTERNSHIP

This is to certify that

STUDENT NAME:SHRADDHA SAHANE   CNumber : C22018221387

is a bonafide student of this institute and completed summer internship for the duration 8 weeks for period 1st June 2021 to 31st August 2021 in the Cummins College of Engineering for Womens.

(Prof. Mrs. Sakshi Mandke)   **(Dr. Supriya Kelkar)**
      Internal Mentor   Head,
Department of Computer Engineering   Department of Computer
Engineering

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Director,
Cummins College of Engineering for Women Pune – 52

Place : Pune

Date : 6 September 2021

ACKNOWLEDGEMENT

This document is about the internship report on the "Project Work" that I have done through college. Firstly, I would like to thank my college "MKSSS's Cummins College of Engineering for Womens" for giving me this opportunity .

I would like to express my deepest gratitude to "Dr. Mrs. M. B. Khambete",College Director and to "Dr. Mrs. Supriya Kelkar", Head of Computer Department for giving me a chance of learning and professional development. I would also like to convey my heartiest thanks to "Prof. Mrs. Sakshi Mandke", Internal Mentor, Department of Computer Engineering who in spite of being extraordinarily busy with her schedule, took time out to hear ,guideand keep me on the correct path and allowed me to carry out my project work efficiently during these two months.

While working on this project I learnt many new things, gained skills and knowledge which contributed to my career growth. I would like to extend my sincere thanks to all of them.

Sincerely,

Shraddha Sahane

ABSTRACT

This document is about a project related to the creation of "An Online Quiz Application".The main objective of the project is to develop a user-friendly quiz application. In this project we will create a MCQ based Quiz application that contains a set of curated questions and its answers. The questions in the quiz will be related to the programming languages. There users can give a quiz for three programming languages such as - C, C++, Java. We have to check for the correctness of the answer given by the user by navigating through all questions and displaying the score at the end and it will be stored in the database.

This application is accessed by entering the username and password which is added to the database. Here initially users have to do registration followed by login , then the home page will open over there each category will have 10 questions each having four options. Each question needs to be answered in 20 seconds, if the time exceeds then the question will automatically change. Through this application one can gain and share knowledge by attempting a quiz within a given time constraint. Source code of this project is in Java and HTML. The user data that users enter during registration is stored in the database.

Quiz can be attempted multiple times. Students can use this app for practising and brushing up the basics related to programming languages.This can be an effective way of learning languages and having fun while playing quiz.

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CHAPTER 1 : INTRODUCTION

1.1 : PROJECT TITLE :   An Online Quiz Application.

1.2 : PROBLEM STATEMENT / PROJECT DEFINITION

Online Quiz Application is developed to conduct quizzes based on the time constraint. So, Create a MCQ based quiz application that contains a set of curated questions and answers. We have to check for the correctness of answers given by the user by navigating through all the questions and displaying the score at the end.

- Quiz can be accessed by entering username and password which will be added to the database.
- Before starting the quiz display rules and regulation.
- Every question will have four options based on various programming languages.
- If the answer is correct , Score is incremented by ten, if the answer is wrong then no negative marks.
- Each question will have 20 seconds to solve , if time exceeds the automatically change the question.
- Calculate final score, update it in the database.
- Display the final score and correct answers for questions.

1.3 : PURPOSE

The main objective of this project is to create a quiz application ,where users can attempt or play the quiz and learn through it. There are many quiz applications currently available on the internet . But very few are user friendly, provide proper answers, fascinate users to attempt again,etc. So as to develop applications that will solve the above problems. Through these applications students will learn with fun and gain knowledge. Also through their scores they can judge their knowlegde.

1.4 : SCOPE

The scope of the project is very broad i.e to develop a user friendly quiz application to gain and share knowledge by attempting quizzes based on time constraints.

- Can be used anywhere any time and also can be attempted multiple times.
- This application can be used by both novice and expert users.
- Application Should be able to run on any system regardless of operating system.

CHAPTER 2: SYSTEM REQUIREMENTS

2.1 : FUNCTIONAL REQUIREMENTS

1) Login and Registration Page:-

I) User needs to register before login.(using register button).

II) Full details in all fields.(Firstname, middlename, last   name,address,etc)

III) Username and password (should contain exactly 6 characters)

IV) Username or password cannot be empty.

V) Click on register, data is stored in user Table.

VI) Then login using username and password (exactly 6 characters each)

VII) If (username and password match)

       Then login

VIII) Else

       Re-enter username and password
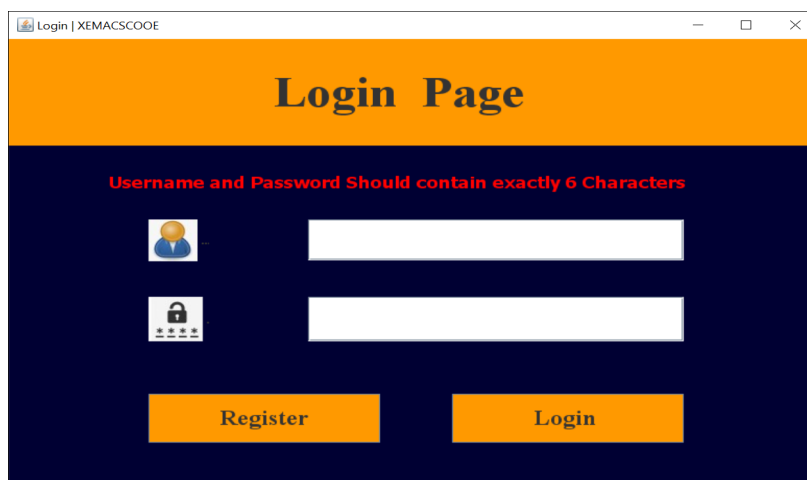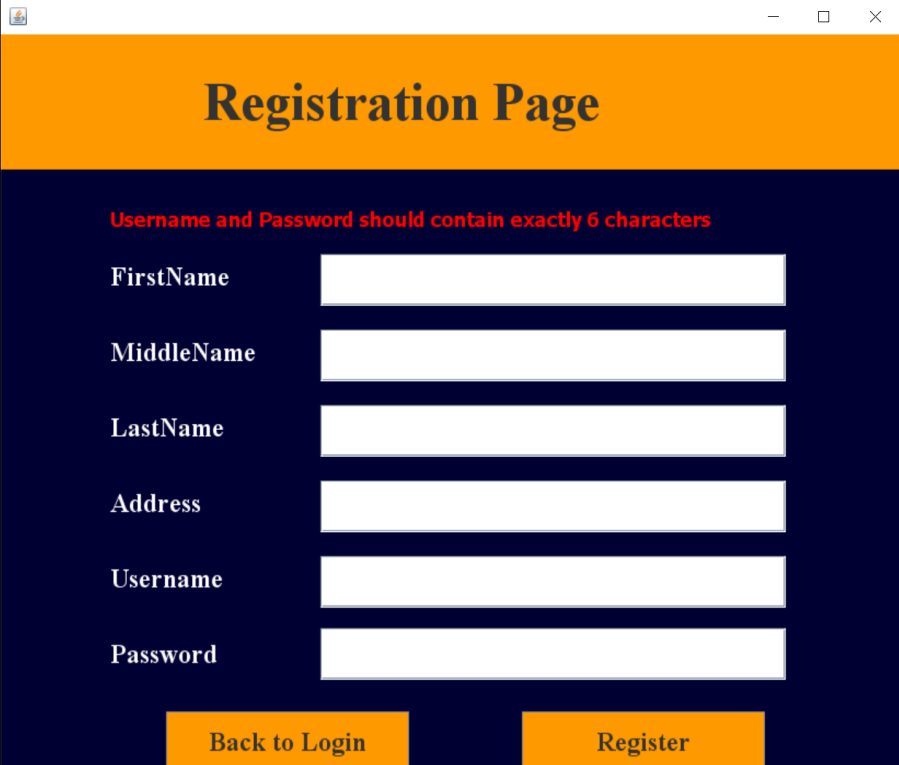
Figure No 2.1: Login Page
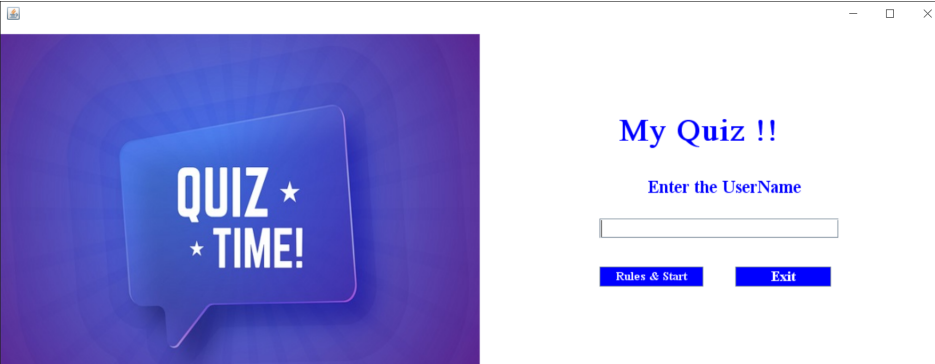
Figure No 2.2: Registration Page

2) Home Page:

I) Rules button:- to view rules and begin quiz

II) Exit button:- to exit from system.

Figure No 2.3: Home Page

3) Rule Page:

I) Back button:- to traverse back to home page

II) Start button:- to begin with quiz
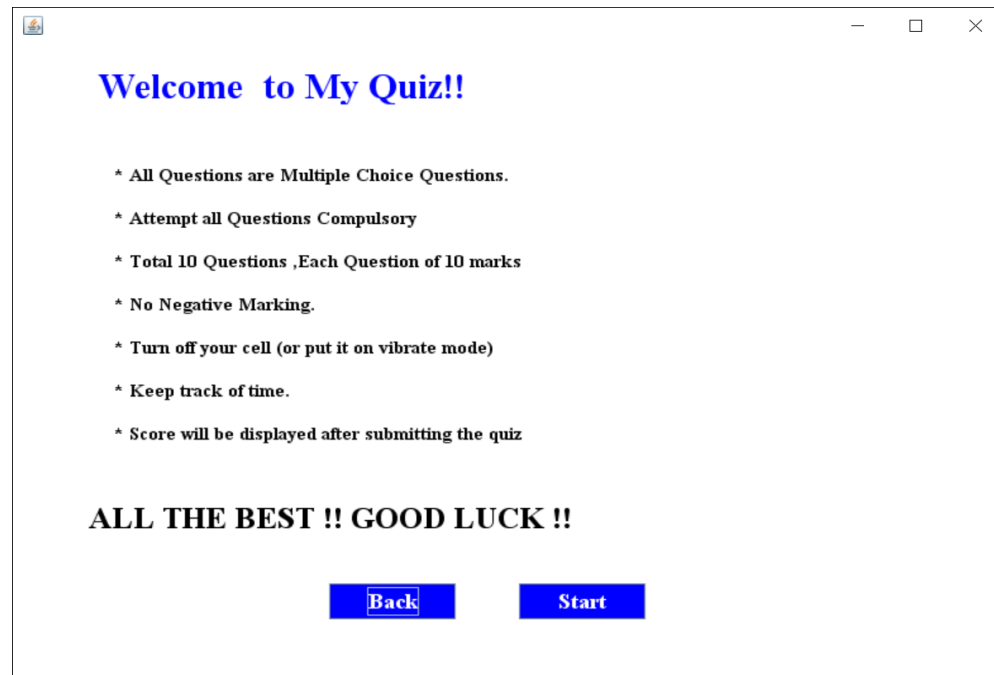
Figure no 2.4: Rule Page

4) Categories of Quiz:

Three categories of quiz based on programming language.

Each category consist of 10 questions and each question having 4 options

I)C button :- quiz on c language.

II) C++ button:- quiz on c++ language

III) Java button:- quiz on java language

IV) Back button:- to traverse back**.**

5) Quiz Page :-

I) Depending of selection of quiz among three types questions will be displayed

II) Time allotted will be 20 sec. After 20 sec the question will change.

III) 4 multiple choice option select one of them

IV) Next button:- to go to the next question.

V) Back button:- to go to previous question

VI) Submit button:- to submit quiz

VII) For first question :-

      Next button- enabled

      Back button & Submit button – disabled

VIII) For (2 to 9) question :-

      Next button & Back button – enabled

      Submit button – disabled

IX) For last question:-

      Next button:- disabled

      Back button & Submit button- enable**d**

Figure No 2.4 : Quiz Page

6) Score Page :-

  I) Score will be displayed

  II) Total questions, no of right answers and no of wrong answer displayed

 III)Attempt again button:- it will take to the home page. To attempt quiz again

 IV) See correct answer button:- will display the correct answers

    It consists of two buttons:

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 V) Exit.
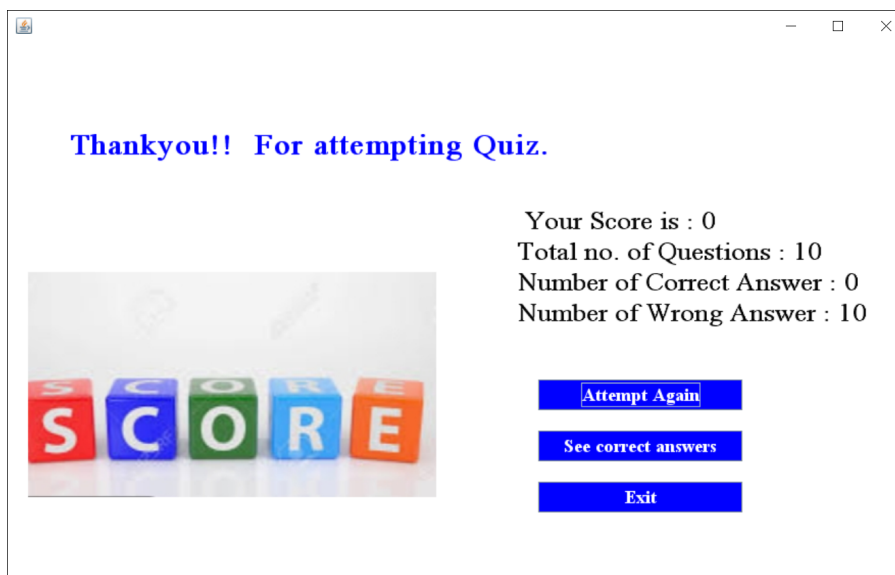
Figure No 2.6: Score Page

2.2 : NON FUNCTIONAL REQUIREMENTS

- Reliability
- Availability
- Efficiency
- Usability

CHAPTER 3 : TECHNOLOGY USED

3.1: TECHNOLOGIES

3.1.1 : Programing Languages

The programming languages used are Java and HTML.

- JAVA : Java is a platform-independent programming language for multiple operating systems, so it is the best option for development of mobile applications

    *For designing of UI following inbuilt package where used:
    - Java Graphics Library
    - Java Swing Package: It is a GUI tool kit built on top of awt. It is part of JFC i.e Java Foundation Classes.
    - Java AWT Package: It stands for Abstract Window Toolkit, used in UI designing.

    *Getters and Setters For accessing questions
    *Exception Handling
- Data Structure Used: 2D Arrays - for storing the questions and answers
- HTML :Hyper Text Markup Language is used to generate the user interface.

3.1.2 : IDE USED

NETBEANS IDE: It is open source, free, multiple languages can be used. Designing UI becomes easy on it as it has many features. It provides many features to develop web applications .In that plugins can be done easily.

3.1.3 : DATABASE

- **MYSQL** database was used to store user information and scores.
- **JDBC:** Java Database Connectivity is an application programming interface for java ,which defines how a client may access a database. Used for connecting frontend with backend.
- ***Database used:-** one (quiz database)
- *Quiz database consists of two tables (users & score)
- **User Table**

<u>userid</u>	First name	middle name	Last name	address	username	password

Table No : 3.1: User Table in Database

- **Score Table**

userid	username	score	Programming language	Total Marks

Table No 3.2 : Score Table in database

3.2 : SDLC

SDLC is a Software Development Life Cycle which is used by both large and small organizations. Various SDLC methodologies are -

- Waterfall Model

- Iterative Model

- Incremental Model

- Agile Methodology

Waterfall model used as we know the requirements which are clear & fixed. It allows for departmentalization and control.

3.3.1 : WATERFALL MODEL

Waterfall models break the project into linear sequential phases, and each phase consists of a series of tasks. Various phases in the waterfall model are: Requirement gathering, anaylsis, Designing implementation, coding, testing, deployment, maintenance.

Figure No 2.7: Waterfall Model

CHAPTER 4 : CONCLUSION

Thus, during this project work we successfully developed " Online Quiz App", designed and tested. Also all objectives were accomplished. For this waterfall model methodology was used for software development life cycle. and the languages used were java and html. This project has helped us in getting a clearer understanding of real world application development. This project will develop the knowledge and skill of students.

CHAPTER 5: REFERENCES

- **(**To understand Netbeans IDE and basics of Java app development.)
  https://netbeans.apache.org/kb/docs/java/javase-intro.html
- Java Swing - https://www.javatpoint.com/java-swing
- Java AWT - https://www.javatpoint.com/java-awt
- JDBC Connectivity -
  https://www.geeksforgeeks.org/establishing-jdbc-connection-in-java/

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