ONLINE QUIZ GAME

A PROJECT REPORT

Submitted by

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in partial fulfillment for award of the degree of

MASTER OF COMPUTER APPLICATION
IN
COMPUTER SCIENCE & ENGINEERING

Centurion
UNIVERSITY
Shaping Lives...
Empowering Communities...

SCHOOL OF ENGINEERING AND TECHNOLOGY

BHUBANESWAR CAMPUS

CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT

ODISHA

JANUARY 2024 / MAY 2024

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BONAFIDE CERTIFICATE

Certified that this project report **ONLINE QUIZ GAME** is the bonafide work of **"BIDYASAGAR BEHERA"** who carried out the project work under my supervision. This is to further certify to the best of my knowledge, that this project has not been carried out earlier in this institute and the university.

SIGNATURE
(Asst. Prof. Saroj Kumar Sahoo)

Certified that the above mentioned project has been duly carried out as per the norms of the college and statutes of the university.

SIGNATURE
(Prof. Rakesh Kumar Ray)
HEAD OF THE DEPARTMENT
HOD Of Master Of Computer Application

DEPARTMENT SEAL

DECLARATION

I hereby declare that the project entitled "**ONLINE QUIZ GAME**" submitted for the "Minor Project" of 2nd semester in Master of Computer Application is my original work and the project has not formed the basis for the award of any Degree / Diploma or any other similar titles in any other University / Institute.

Name Of The Student : Bidyasagar Behera

Signature Of The Student :

Registration No. : 230720100128

Place : Bhubaneswar

Date :

ACKNOWLEDGEMENTS

I wish to express our profound and sincere gratitude to Asst. prof. Saroj Kumar Sahoo, Department of Master of Computer Application, SoET, Bhubaneswar Campus,who guided me into the intricacies of this project nonchalantly with matchless magnanimity.

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I would be failing in my duty if I don't acknowledge the cooperationrendered during various stages of image interpretation by Asst. Prof. Saroj Kumar Sahoo.

I am highly grateful to Asst. prof. Saroj Kumar Sahoo who evinced keen interest and invaluable support in the progress and successful completion of my project work.

I am indebted to Asst. prof. Saroj Kumar Sahoo for their constant encouragement, co- operation and help. Words of gratitude are not enough to describe the accommodation and fortitude which they have shown throughout my endeavor.

Name Of The Student : Bidyasagar Behera

Signature Of The Student :

Registration No. : 230720100128

Place : Bhubaneswar

Date :

ABSTRACT

“ONLINE QUIZ GAME" is an engaging online quiz game designed to challenge and entertain players of all ages. In a world increasingly reliant on digital interactions, this game offers a platform for individuals to test their knowledge, compete with friends, and embark on a journey of learning and discovery.

The game features a diverse range of categories, including general knowledge, history, science, pop culture, and more, ensuring there's something for everyone. With each round, players are presented with a series of questions varying in difficulty, encouraging critical thinking and problem-solving skills.

One of the key highlights of “ONLINE QUIZ GAME" is its multiplayer functionality, allowing players to compete against friends or strangers from around the globe in real-time. This fosters a sense of community and healthy competition, as participants strive to climb the leaderboard and earn bragging rights as the ultimate quiz champion.

Moreover, “ONLINE QUIZ GAME" offers a dynamic and interactive user experience, with vibrant visuals, intuitive controls, and seamless gameplay across various devices. Whether playing on a desktop computer, tablet, or smartphone, users can enjoy the game anytime, anywhere.

In summary, “ONLINE QUIZ GAME" stands as a testament to the power of technology to educate, entertain, and connect people worldwide. By blending fun gameplay with educational content, it offers an enriching experience that transcends traditional boundaries, inspiring a love for learning in players of all backgrounds.

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CHAPTER – 1 : INTRODUCTION

In today's fast-paced digital era, online quiz games have emerged as popular pastimes, offering entertainment, education, and social interaction all in one package. These games provide a platform for individuals to test their knowledge, challenge their intellect, and connect with others from around the world in a fun and engaging way.

Online quiz games come in various forms, ranging from trivia quizzes on specific topics to general knowledge challenges covering a wide array of subjects. They are accessible through web browsers, mobile apps, and social media platforms, making them easily available to a broad audience.

The allure of online quiz games lies in their simplicity and accessibility. Players can participate anytime, anywhere, whether they're commuting on a train, relaxing at home, or taking a break at work. With just a few taps or clicks, they can dive into a world of questions, puzzles, and brain teasers, stimulating their minds and providing an enjoyable diversion from daily routines..

In addition to entertainment, online quiz games offer educational benefits. They provide a platform for learning new facts, expanding one's knowledge base, and honing cognitive skills such as memory, attention, and problem-solving. By gamifying the learning process, these games make education more engaging and enjoyable for players of all ages.

In summary, online quiz games have become integral parts of the digital landscape, offering a blend of entertainment, education, and social interaction. With their accessibility, versatility, and multiplayer features, they provide a captivating experience for players seeking to test their wits, broaden their horizons, and connect with others in the virtual realm.

CHAPTER – 2 : SCOPE OF THE PROJECT

The scope of a Quiz Game project can vary greatly depending on factors such as the target audience, platform, complexity, and features desired. Here's a breakdown of the scope considering different aspects:

Target Audience: Define who the quiz game is for. Is it for kids, adults, students, professionals? This will influence the content, design, and complexity of the questions.

Platform: Decide which platform(s) the game will be developed for. Will it be a mobile app, a web application, or a desktop application? Each platform has its own development requirements and limitations.

User Authentication: Decide whether users need to create accounts or if they can play anonymously.

Question Types: Determine the types of questions the game will have (multiple choice, fill in the blanks, etc.).

Question Database: Develop or source a database of questions. Ensure accuracy and relevance to the target audience.

Content Management System (CMS): Implement a system for easily adding, editing, and deleting questions.

Development:

Frontend: Develop the client-side interface using appropriate technologies (Jvav).

Backend: Implement the server-side logic for user authentication, game mechanics, and data management (Java).

Database: Choose and set up a database to store user data, questions, and game-related information (MySQL.).

Maintenance and Updates : Plan for ongoing maintenance, bug fixes, and updates to keep the game running smoothly and to address any issues that arise post-launch.

CHAPTER -3 : OVERVIEW OF PROPOSED SYSTEM

The proposed system for the online quiz game encompasses several key components to deliver an engaging and seamless user experience. At its core, the system consists of the following elements:

1.User Interface:

The user interface serves as the gateway for players to access the quiz game. It is designed to be intuitive, visually appealing, and responsive across various devices, including desktop computers, tablets, and smartphone

2.**Quiz Database:**

1. The system is integrated with a comprehensive quiz database containing a diverse range of questions spanning multiple topics and difficulty levels.

3.**Game Mechanics:**

1. The game mechanics dictate how the quiz game operates, including rules, scoring systems, timers, and feedback mechanisms.

4.**Multiplayer Functionality:**

1. The system features multiplayer functionality, enabling players to compete against each other in real-time or asynchronously.

5.**Social Integration:**

1. Social integration allows players to share their quiz results, achievements, and challenges with friends and followers on social media platforms.

6.**Administration Panel:**

1. An administration panel provides administrators with tools to manage user accounts, monitor game performance, and oversee content moderation.
2. Administrators can add or remove questions from the database, review user-generated content, and address any issues or concerns reported by players.

CHAPTER- 4: METHODOLOGY & ANALYTICAL COMPTATION

Methodology Used :

The Programming language used for the development of the project is Java and the software model used is the classical Lifecycle model.

System Requirement :

- Hardware Requirement : PC
- Operating System : Windows
- Platform for Deployment : NetBeans
- Language of Choice : JAVA
- Database : MySQL

Product Perspective :

- It is a Quiz Application which is based on Web Application. It usually interacts with user . In this application will held 10 questions , and each question carries 10 mark.
- There is no negative marking . If we do not attempt any question then it will show "Not Attempted".
- In Result Screen, it will show total marks obtain in quiz.
- Main Purpose of this Application is to develop Knowledge and Skills in the User.

Product Function :

- **Account Login:**
  User can login using ID and password.
- **Account Logout:**
  User can logout the account whenever required.
- **Paly Quiz :**
  User can play the quiz according to his / her choice.
- **Result** :
  User Attempted the quiz and gets a result.
- **Add Question:**
  Admin can add question by selecting the topic.

CHAPTER-5 : REQUIREMENTS

1. Functional Requirements :

1.User Registration/Login:

1. Users should be able to create accounts or log in using existing credentials.
2. Authentication mechanisms should ensure security and user privacy.

2.Quiz Creation:

1. Admins or authorized users should be able to create quizzes.
2. The system should support various question types such as multiple choice, true/false, fill in the blank, etc.

3.Quiz Playing:

1. Users should be able to select quizzes from a list of available options.
2. The system should present questions one at a time and provide feedback on answer.

4.Leaderboards and Rankings:

1. The system should maintain leaderboards to display high scores.
2. Users should be able to see their own rankings compared to others.

5.Social Features:

1. Integration with social media platforms for sharing scores or inviting friends to play.
2. Option to challenge friends directly.

6.Accessibility:

1. The platform should be accessible across different devices (desktop, mobile,.

7.Feedback and Reporting:

1. Users should be able to report inappropriate content or issues with questions.

4.2. Non-Functional Requirements

1.Performance:

1. The system should be responsive and capable of handling concurrent users without significant lag.
2. Load balancing mechanisms should ensure optimal performance during peak usage times.

2.Scalability:

1. The system should be designed to accommodate a growing user base and increasing quiz content.
2. Scalable infrastructure to handle spikes in traffic.

3.Security:

1. Data encryption should be implemented to protect user information and quiz content.

4.Reliability:

1. The system should have minimal downtime and be reliable for users to access quizzes whenever they want.
2. Regular backups of data to prevent loss in case of system failure.

5.Usability:

1. Intuitive user interface design to ensure ease of navigation and interaction.

6.Compatibility:

1. Compatibility with different web browsers and operating systems.

7.Regulatory Compliance:

1. Compliance with data protection regulations such as GDPR, especially regarding user data handling and privacy.

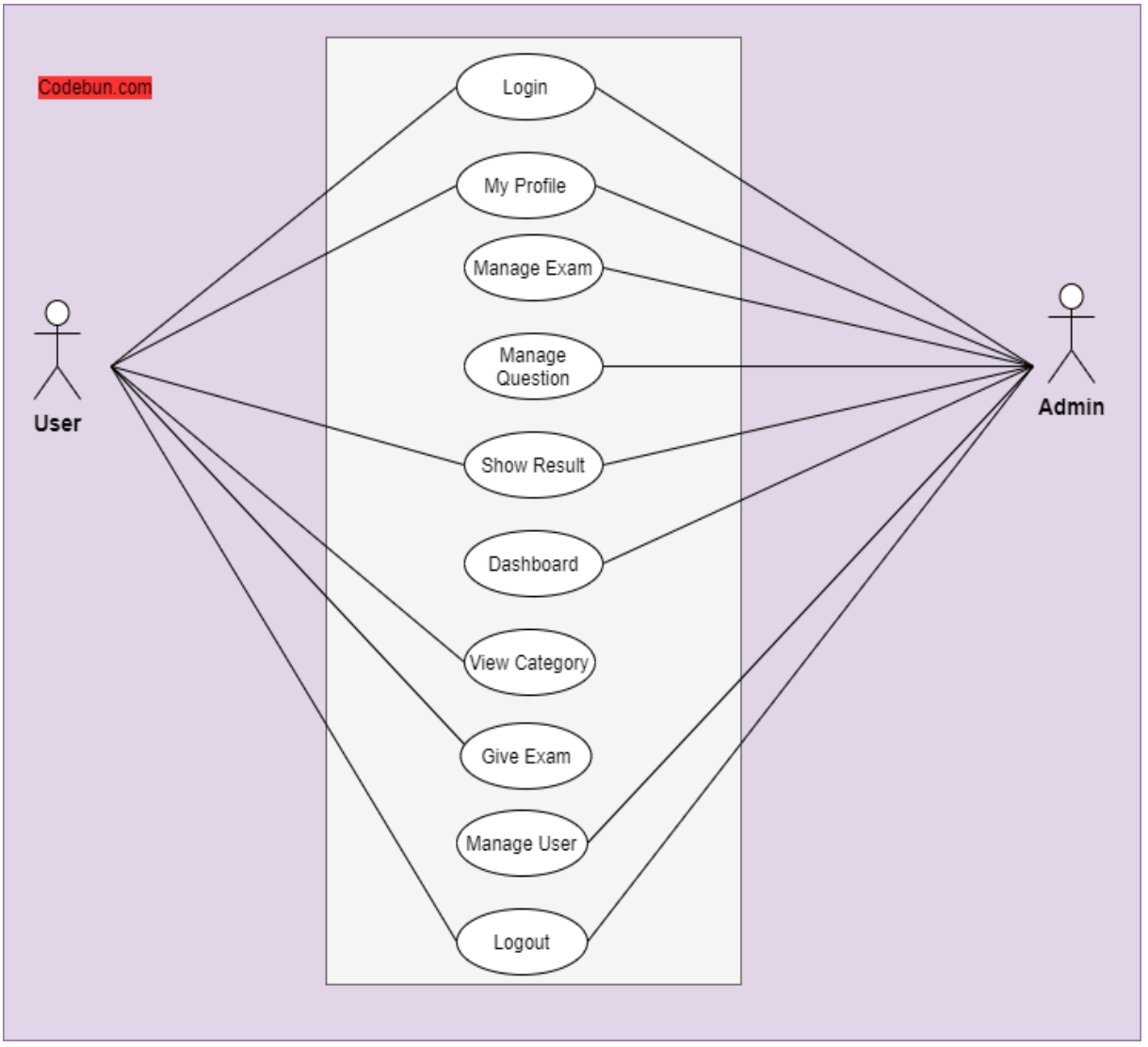
8.Maintainability:

1. The system should be designed with modular components for ease of maintenance and updates.
2. Well-documented codebase to facilitate future development and troubleshooting.

CHAPTER - 6: SYSTEM DESIGN IN UML DIAGRAM

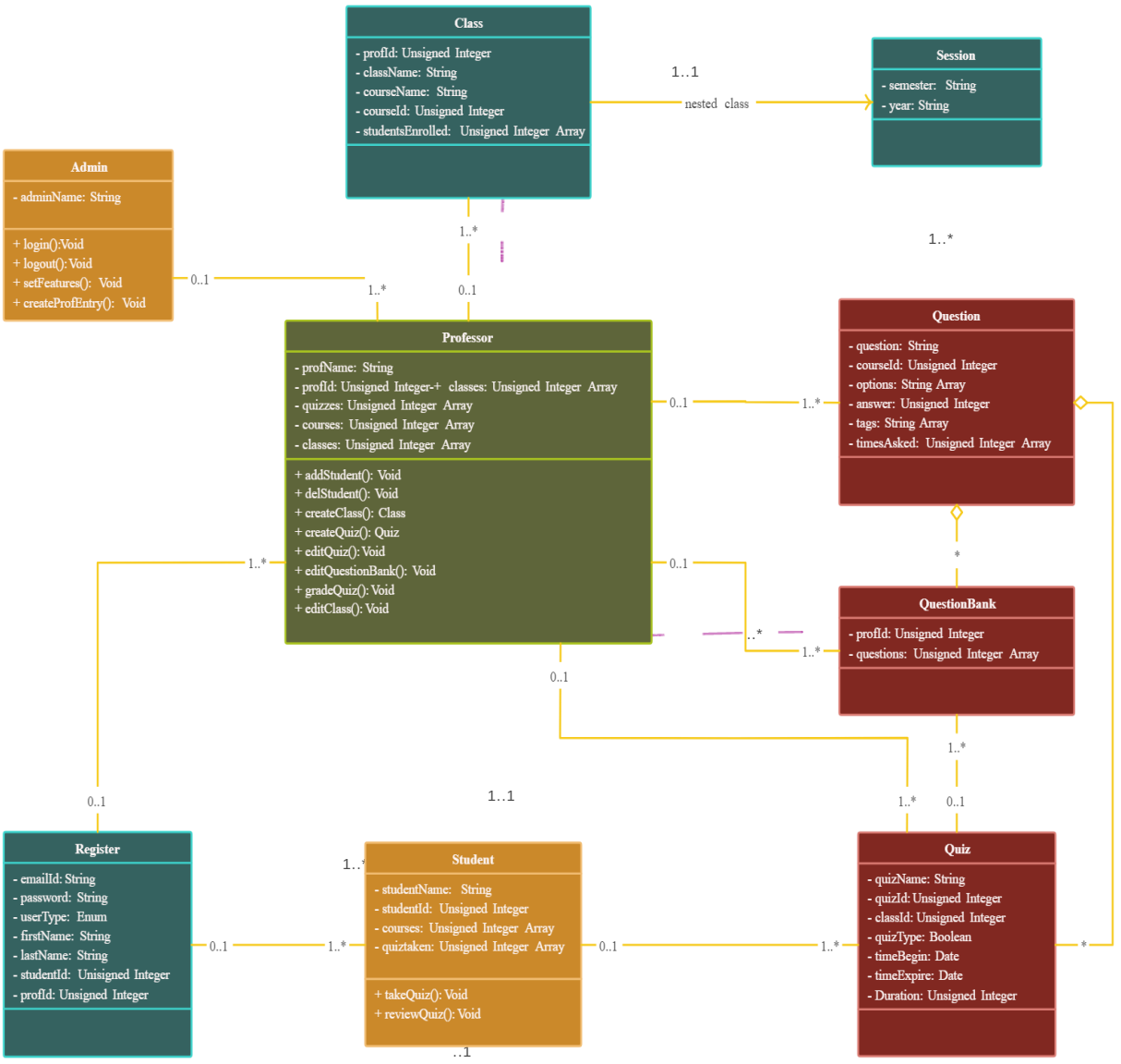
5.1. Use Case Diagram

The main purpose of a use case diagram is to portray the dynamic aspect of a system. It accumulates the system's requirement, which includes both internal as well as external influences. It invokes persons, use cases, and several things that invoke the actors and elements accountable for the implementation of use case diagrams. It represents how an entity from the external environment can interact with a part of the system.



5.2. Class Diagram:

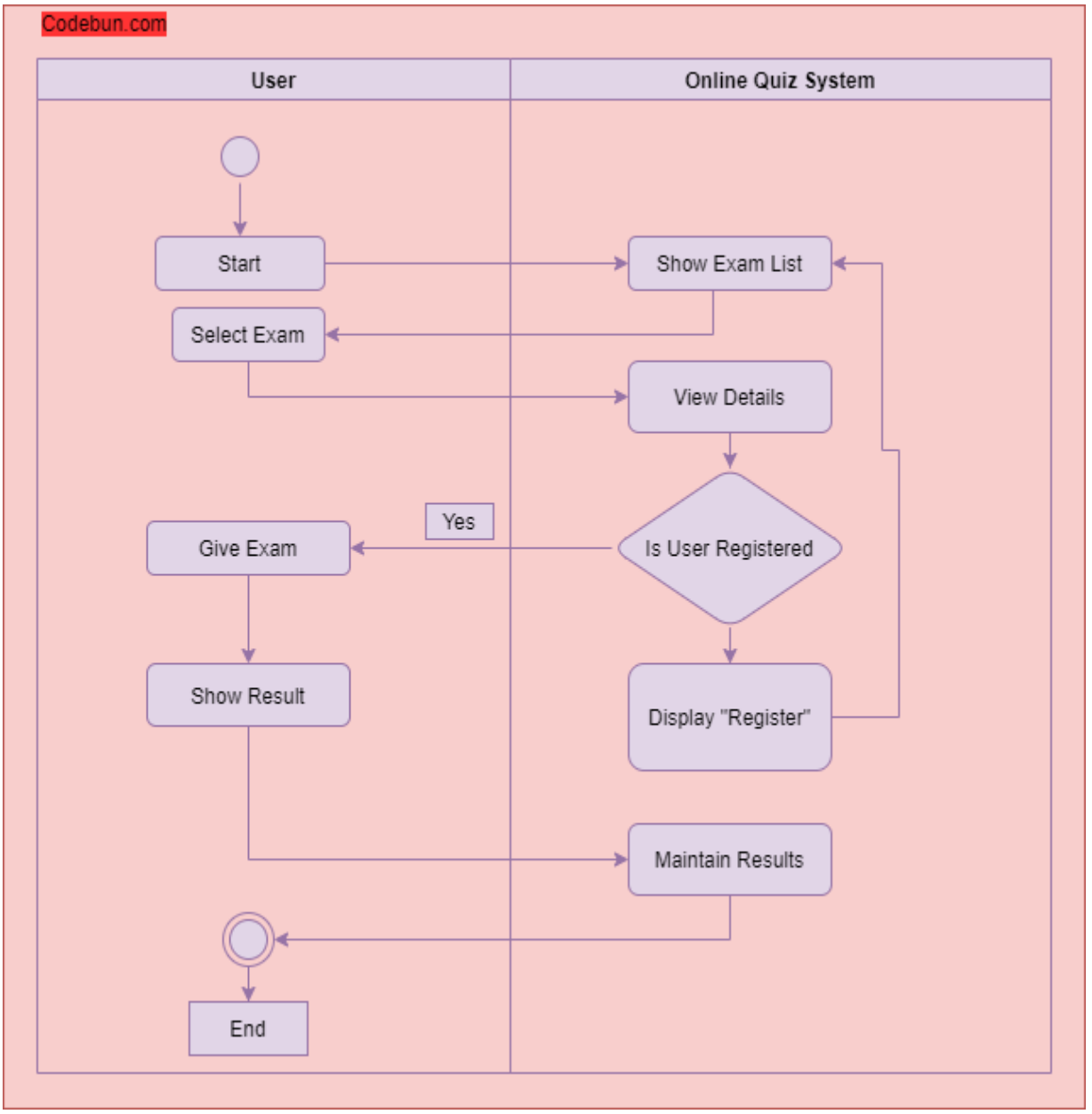
The main purpose of a use case diagram is to portray the dynamic aspect of a system. It accumulates the system's requirement, which includes both internal as well as external influences. It invokes persons, use cases, and several things that invoke the actors and elements accountable for the implementation of use case diagrams. It represents how an entity from the external environment can interact with a part of the system.



5.3. Activity Diagram

The activity diagram is used to demonstrate the flow of control within the system rather than the implementation. It models the concurrent and sequential activities.

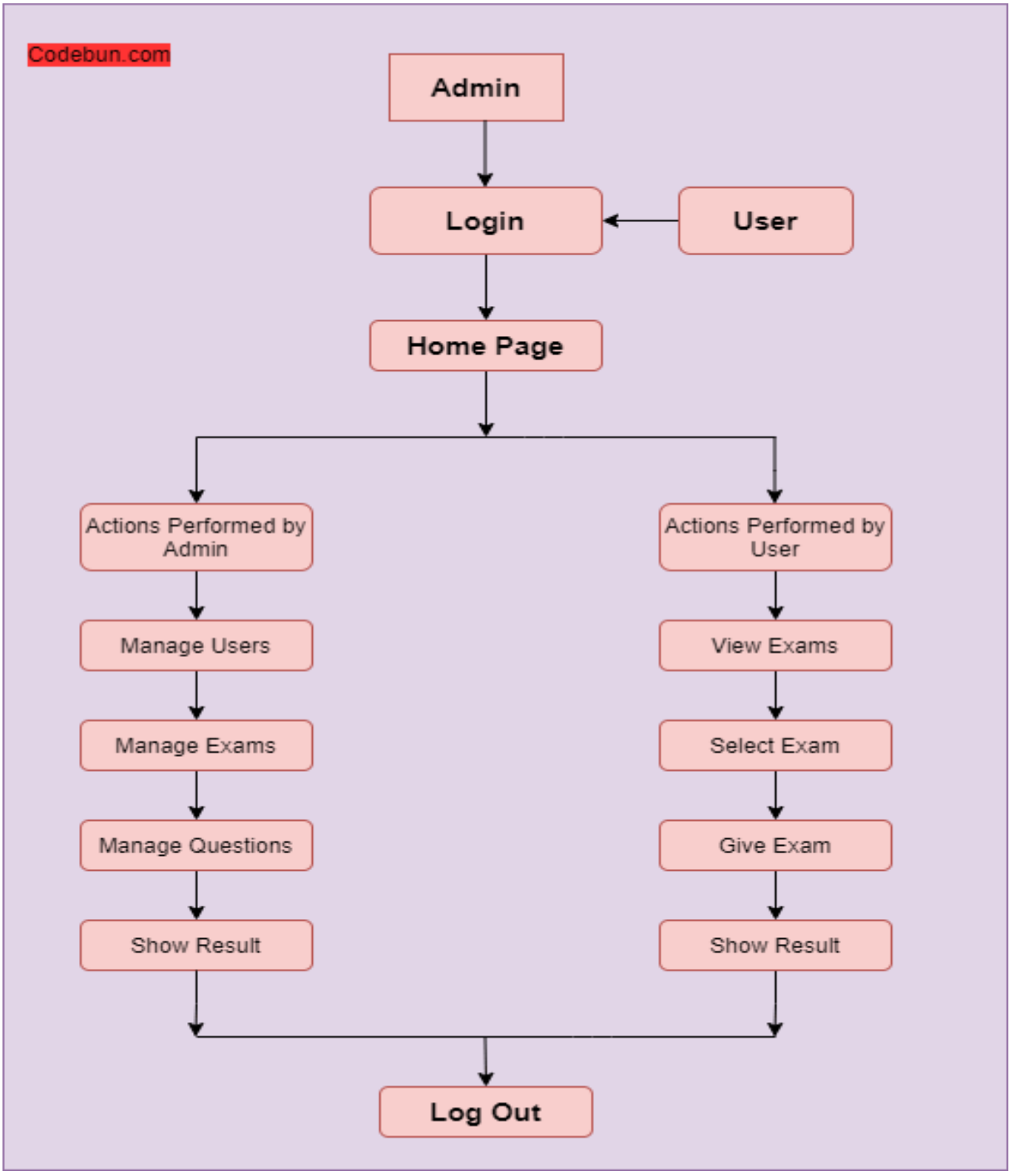
The activity diagram helps in envisioning the workflow from one activity to another. It put emphasis on the condition of flow and the order in which it occurs. The flow can be sequential, branched, or concurrent, and to deal with such kinds of flows, the activity diagram has come up with a fork, join, etc**.**



5.4. State Chart Diagram

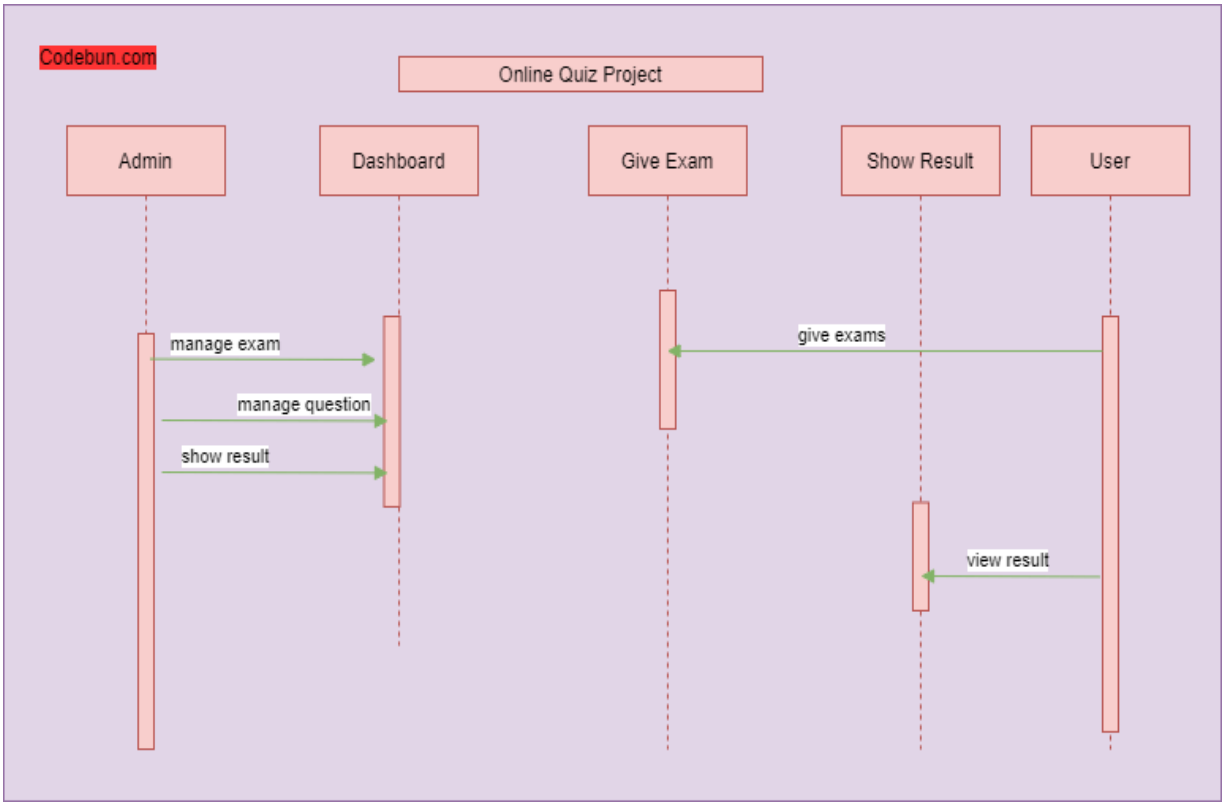
Statechart diagrams are useful to model the reactive systems. Reactive systems can be defined as a system that responds to external or internal events.

Statechart diagram describes the flow of control from one state to another state. States are defined as a condition in which an object exists and it changes when some event is triggered. The most important purpose of Statechart diagram is to model lifetime of an object from creation to termination.



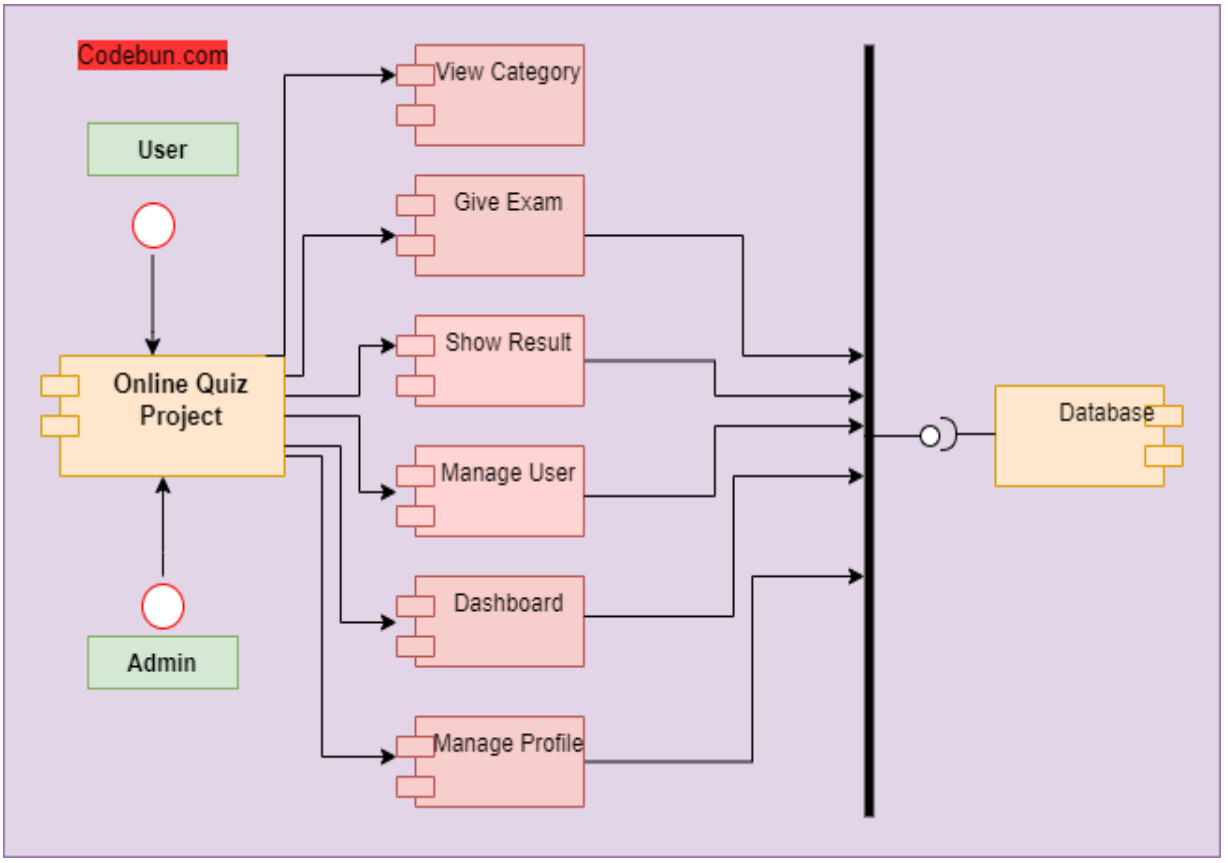
5.5. Sequence Diagram

The sequence diagram represents the flow of messages in the system and is also termed as an event diagram. It helps in envisioning several dynamic scenarios. It portrays the communication between any two lifelines as a time-ordered sequence of events, such that these lifelines took part at the run time. In UML, the lifeline is represented by a vertical bar, whereas the message flow is represented by a vertical dotted line that extends across the bottom of the page. It incorporates the iterations as well as branching.



5.6. Component Diagram

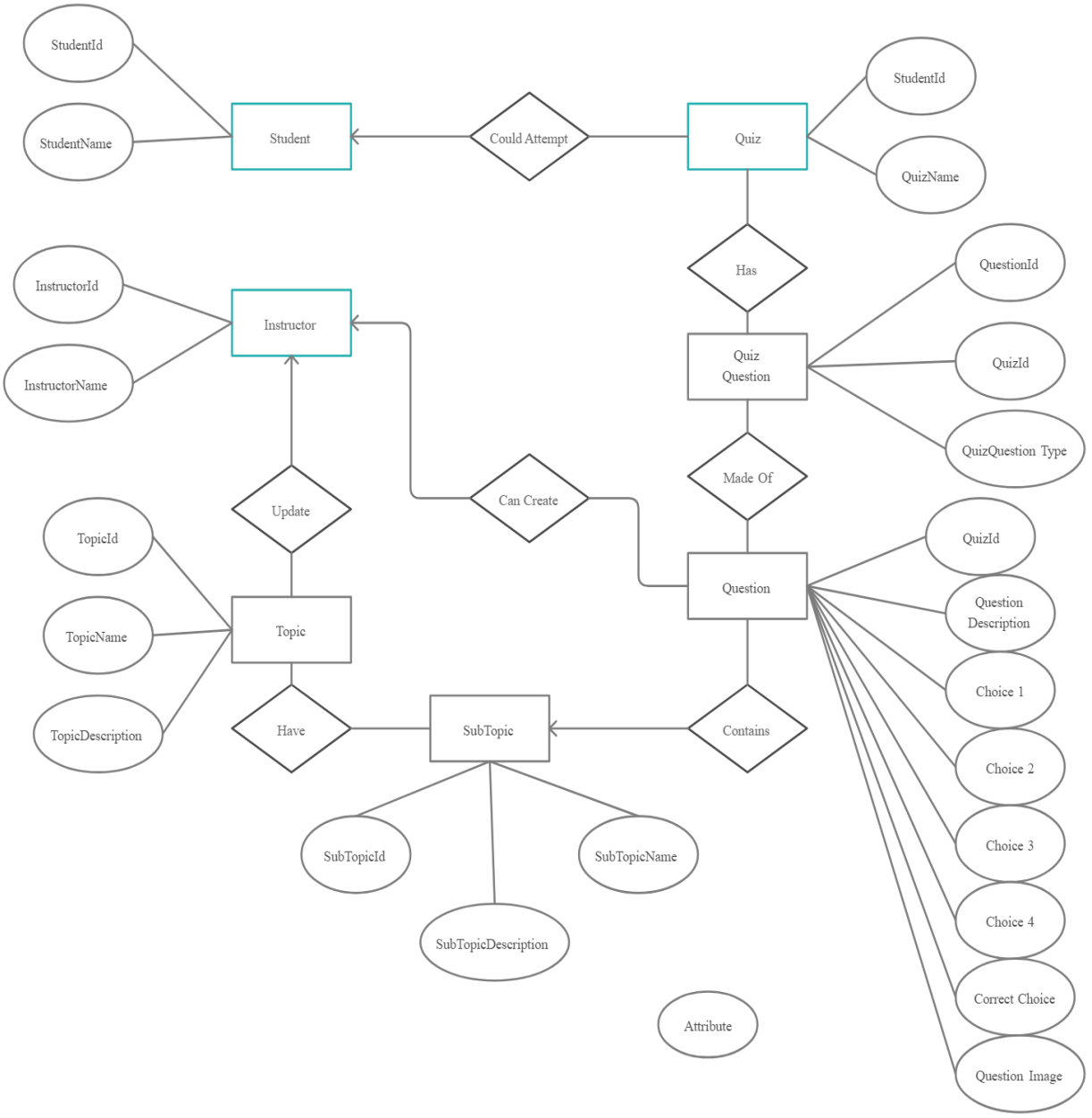
A component diagram in software engineering is a visual representation that illustrates the high-level structure of a system and the interactions between its components. It is a part of the Unified Modeling Language (UML) and is particularly useful for designing and documenting the architecture of software systems



5.7. ER Diagram

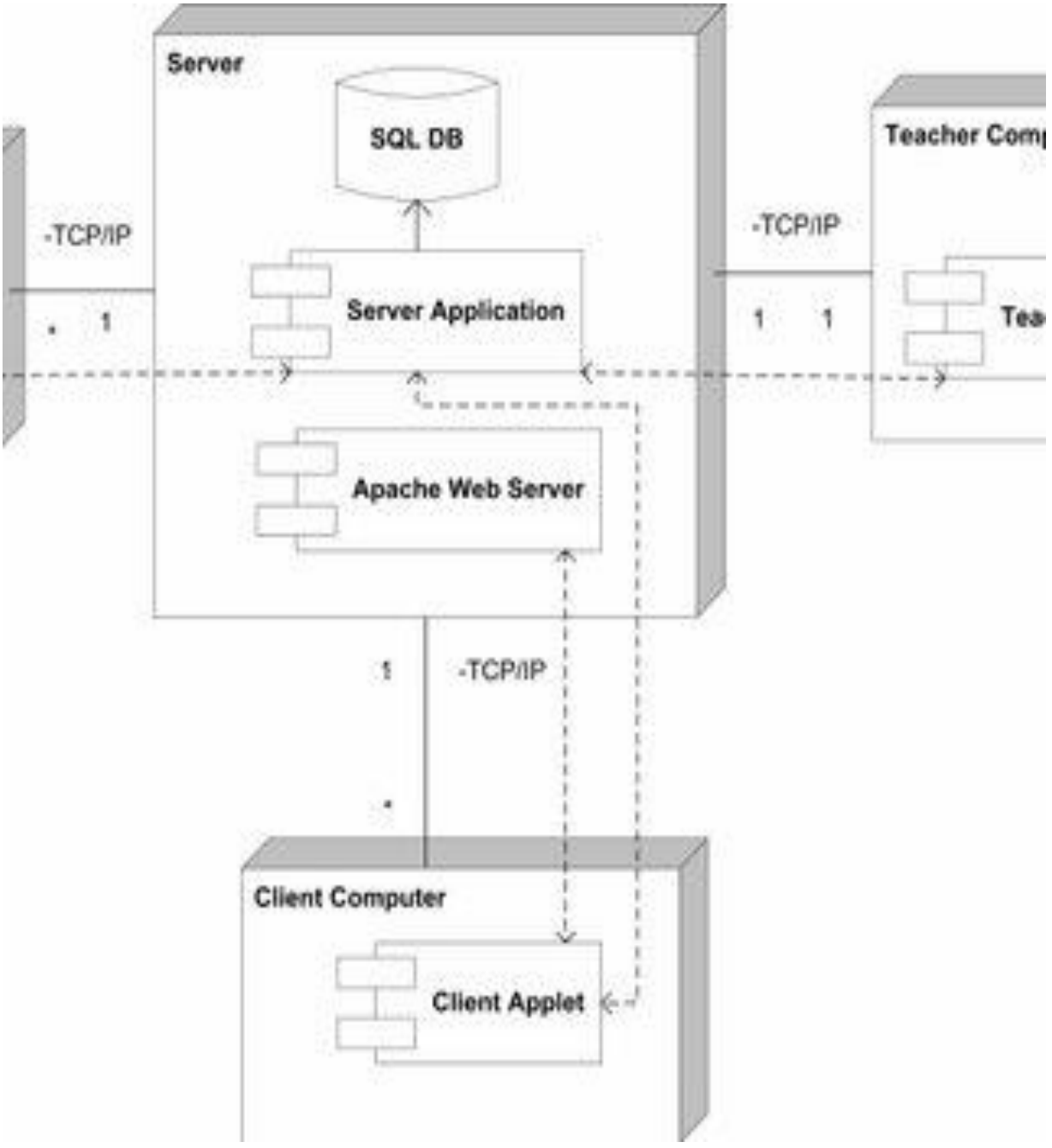
The ER diagram is used to show the relationship between the objects in a system. Both the sequence and the ER diagrams represent the same information but differently. Instead of showing the flow of messages, it depicts the architecture of the object residing in the system as it is based on object-oriented programming. An object consists of several features.

Multiple objects present in the system are connected to each other. The collaboration diagram, which is also known as a communication diagram, is used to portray the object's architecture in the system.



5.8. Deployment Diagram

Software Deployment is the process of making software available to be used on a system by users and other programs. You might deploy software to create a backup copy of the software, to move the software to another system, or to create another SMP/E-serviceable copy for installing service or other products.



CHAPTER – 7 : CODING

Login Page :

```
package quiz.application;

import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
public class Login extends JFrame implements ActionListener{
   JButton rules, back;
   JTextField tfname;
   Login() {
      getContentPane().setBackground(Color.WHITE);
      setLayout(null);
      ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/login.jpeg"));
      JLabel image = new JLabel(i1);
      image.setBounds(0, 0, 600, 500);
      add(image);
      JLabel heading = new JLabel("Knowledge Knockout");
      heading.setBounds(750, 60, 300, 45);
      heading.setFont(new Font("Forte", Font.BOLD, 28));
      heading.setForeground(new Color(30, 144, 254));
      add(heading);
      JLabel name = new JLabel("Enter Your Name...");
      name.setBounds(800, 150, 300, 20);
      name.setFont(new Font("Script MT Bold", Font.BOLD, 24));
      name.setForeground(new Color(30, 144, 254));
      add(name);
      tfname = new JTextField();
      tfname.setBounds(735, 200, 300, 25);
      tfname.setFont(new Font("Cooper Black", Font.PLAIN, 20));
      add(tfname);
      rules = new JButton("Rules");
      rules.setBounds(735, 270, 120, 25);
      rules.setBackground(new Color(30, 144, 254));
      rules.setForeground(Color.WHITE);
      rules.addActionListener(this);
      add(rules);
      back = new JButton("Back");
      back.setBounds(915, 270, 120, 25);
      back.setBackground(new Color(30, 144, 254));
      back.setForeground(Color.WHITE);
      back.addActionListener(this);
      add(back);
      setSize(1200, 500);
      setLocation(200, 150);
      setVisible(true);
   }
   public void actionPerformed(ActionEvent ae) {
      if (ae.getSource() == rules) {
         String name = tfname.getText();
         setVisible(false);
         new Rules(name);
      } else if (ae.getSource() == back) {
         setVisible(false);
      }
   }
   public static void main(String[] args) {
      new Login();
   }
}
```

Rules Page :

```
package quiz.application;

import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
public class Rules extends JFrame implements ActionListener{
   String name;
   JButton start, back;
   Rules(String name) {
      this.name = name;
      getContentPane().setBackground(Color.WHITE);
      setLayout(null);
      JLabel heading = new JLabel("Welcome " + name + " to Knowledge Knockout");
      heading.setBounds(50, 20, 700, 30);
      heading.setFont(new Font("Forte", Font.BOLD, 28));
      heading.setForeground(new Color(30, 144, 254));
      add(heading);
      JLabel rules = new JLabel();
      rules.setBounds(30, 90, 700, 350);
      rules.setFont(new Font("Script MT Bold", Font.BOLD, 14));
      rules.setText(
         "<html>"+
            "1. The objective of the game is to correctly answer as many questions as possible to earn points and win."
+ "<br><br>" +
            "2. The player has a limited amount of time to provide an answer." + "<br><br>" +
            "3. If the answer is correct, they earn points. If it's incorrect, they don't earn any points." + "<br><br>" +
            "4. Set up a point system (e.g., 10 point per correct answer)." + "<br><br>" +
            "5. Questions can be multiple-choice." + "<br><br>" +
            "6. The player with the highest score at the end of the game wins." + "<br><br>" +
            "7. Award points for each correct answer according to the predetermined point system." + "<br><br>" +
            "8. Avoid looking up answers during gameplay to maintain the integrity of the game." + "<br><br>" +
            "9. Include lifelines that players can use to assist them in answering questions." + "<br><br>" +
            "10. Remember that the Primary goal is for everyone to have fun and enjoy the Game !." + "<br><br>" +
         "<html>"
      );
      add(rules);
      back = new JButton("Back");
      back.setBounds(250, 500, 100, 30);
      back.setBackground(new Color(30, 144, 254));
      back.setForeground(Color.WHITE);
      back.addActionListener(this);
      add(back);
      start = new JButton("Start");
      start.setBounds(400, 500, 100, 30);
      start.setBackground(new Color(30, 144, 254));
      start.setForeground(Color.WHITE);
      start.addActionListener(this);
      add(start);
      setSize(800, 650);
      setLocation(350, 100);
      setVisible(true);
   }
   public void actionPerformed(ActionEvent ae) {
      if (ae.getSource() == start) {
         setVisible(false);
         new Quiz(name);
      } else {
         setVisible(false);
         new Login();
      }
   }
   public static void main(String[] args) {
      new Rules("User");
   }}
```

Quiz Page :

```
package quiz.application;

import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
public class Quiz extends JFrame implements ActionListener {
   String questions[][] = new String[10][5];
   String answers[][] = new String[10][2];
   String useranswers[][] = new String[10][1];
   JLabel qno, question;
   JRadioButton opt1, opt2, opt3, opt4;
   ButtonGroup groupoptions;
   JButton next, submit, lifeline;
   public static int timer = 30;
   public static int ans_given = 0;
   public static int count = 0;
   public static int score = 0;
   String name;
   Quiz(String name) {
      this.name = name;
      setBounds(50, 0, 1440, 850);
      getContentPane().setBackground(Color.WHITE);
      setLayout(null);
      ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/quiz.jpg"));
      JLabel image = new JLabel(i1);
      image.setBounds(0, 0, 1440, 392);
      add(image);
      qno = new JLabel();
      qno.setBounds(100, 450, 50, 30);
      qno.setFont(new Font("Tahoma", Font.PLAIN, 24));
      add(qno);
      question = new JLabel();
      question.setBounds(150, 450, 900, 30);
      question.setFont(new Font("Tahoma", Font.PLAIN, 24));
      add(question);
      questions[0][0] = "Which of the following in not a Java Features ?";
      questions[0][1] = "Dynamic";
      questions[0][2] = "Architecture Neutral";
      questions[0][3] = "Use Of the pointers";
      questions[0][4] = "Object Oriented";
      questions[1][0] = "What is the return type of the hashCode() method in the Object class?";
      questions[1][1] = "int";
      questions[1][2] = "Object";
      questions[1][3] = "long";
      questions[1][4] = "void";
      questions[2][0] = "In Java Which type of Inheritance is supported ?";
      questions[2][1] = "Single Inheritance";
      questions[2][2] = "Multi-Level Inheritance";
      questions[2][3] = "Multiple Inheritance";
      questions[2][4] = "Hierarchical Inheritance";
      questions[3][0] = "Which of the following is a Reserved keyword in Java?";
      questions[3][1] = "Object";
      questions[3][2] = "strictfp";
      questions[3][3] = "main";
      questions[3][4] = "system";
      questions[4][0] = "Which Edition Java is Used for Console Based Application ?";
      questions[4][1] = "J2EE";
      questions[4][2] = "J2SE";
      questions[4][3] = "J2ME";
      questions[4][4] = "JFX";
```

```
questions[5][0] = "Which of the following is an immediate subclass of the Panel class ?";
questions[5][1] = "Applet Class";
questions[5][2] = "Window Class";
questions[5][3] = "Frame Class";
questions[5][4] = "Dialog Class";
questions[6][0] = "Which keyword is used for accessing the features of a package?";
questions[6][1] = "import";
questions[6][2] = "package";
questions[6][3] = "extends";
questions[6][4] = "export";
questions[7][0] = "In Java, JAR stands for?";
questions[7][1] = "Java Archive Runner";
questions[7][2] = "Java Archive";
questions[7][3] = "Java Application Resource";
questions[7][4] = "Java Application Runner";
questions[8][0] = "Which option is false about the final keyword ?";
questions[8][1] = "A final method cannot be overridden in its subclasses.";
questions[8][2] = "A final class cannot be extended.";
questions[8][3] = "A final class cannot extend other classes.";
questions[8][4] = "A final method can be inherited.";
questions[9][0] = "Which of these classes are the direct subclasses of the Throwable class ?";
questions[9][1] = "RuntimeException and Error class";
questions[9][2] = "Exception and VirtualMachineError class";
questions[9][3] = "Error and Exception class";
questions[9][4] = "IOException and VirtualMachineError class";
answers[0][1] = "Use Of the pointers";
answers[1][1] = "int";
answers[2][1] = "Multiple Inheritance";
answers[3][1] = "strictfp";
answers[4][1] = "J2SE";
answers[5][1] = "Applet Class";
answers[6][1] = "import";
answers[7][1] = "Java Archive";
answers[8][1] = "A final class cannot extend other classes.";
answers[9][1] = "Error and Exception class";
opt1 = new JRadioButton();
opt1.setBounds(170, 520, 700, 30);
opt1.setBackground(Color.WHITE);
opt1.setFont(new Font("Dialog", Font.PLAIN, 20));
add(opt1);
opt2 = new JRadioButton();
opt2.setBounds(170, 560, 700, 30);
opt2.setBackground(Color.WHITE);
opt2.setFont(new Font("Dialog", Font.PLAIN, 20));
add(opt2);
opt3 = new JRadioButton();
opt3.setBounds(170, 600, 700, 30);
opt3.setBackground(Color.WHITE);
opt3.setFont(new Font("Dialog", Font.PLAIN, 20));
add(opt3);
opt4 = new JRadioButton();
opt4.setBounds(170, 640, 700, 30);
opt4.setBackground(Color.WHITE);
opt4.setFont(new Font("Dialog", Font.PLAIN, 20));
add(opt4);
groupoptions = new ButtonGroup();
groupoptions.add(opt1);
groupoptions.add(opt2);
groupoptions.add(opt3);
groupoptions.add(opt4);
```

```
    next = new JButton("Next");
    next.setBounds(1100, 550, 200, 40);
    next.setFont(new Font("Tahoma", Font.PLAIN, 22));
    next.setBackground(new Color(30, 144, 255));
    next.setForeground(Color.WHITE);
    next.addActionListener(this);
    add(next);
    lifeline = new JButton("50-50 Lifeline");
    lifeline.setBounds(1100, 630, 200, 40);
    lifeline.setFont(new Font("Tahoma", Font.PLAIN, 22));
    lifeline.setBackground(new Color(30, 144, 255));
    lifeline.setForeground(Color.WHITE);
    lifeline.addActionListener(this);
    add(lifeline);
    submit = new JButton("Submit");
    submit.setBounds(1100, 710, 200, 40);
    submit.setFont(new Font("Tahoma", Font.PLAIN, 22));
    submit.setBackground(new Color(30, 144, 255));
    submit.setForeground(Color.WHITE);
    submit.addActionListener(this);
    submit.setEnabled(false);
    add(submit);
    start(count);
    setVisible(true);
}
public void actionPerformed(ActionEvent ae) {
    if (ae.getSource() == next) {
        repaint();
        opt1.setEnabled(true);
        opt2.setEnabled(true);
        opt3.setEnabled(true);
        opt4.setEnabled(true);
        ans_given = 1;
        if (groupoptions.getSelection() == null) {
          useranswers[count][0] = "";
        } else {
            useranswers[count][0] = groupoptions.getSelection().getActionCommand();
        }
        if (count == 8) {
            next.setEnabled(false);
            submit.setEnabled(true);
        }
        count++;
        start(count);
    } else if (ae.getSource() == lifeline) {
        if (count == 2 || count == 4 || count == 6 || count == 8 || count == 9) {
            opt2.setEnabled(false);
            opt3.setEnabled(false);
        } else {
            opt1.setEnabled(false);
            opt4.setEnabled(false);
        }
        lifeline.setEnabled(false);
    } else if (ae.getSource() == submit) {
        ans_given = 1;
        if (groupoptions.getSelection() == null) {
            useranswers[count][0] = "";
        } else {
            useranswers[count][0] = groupoptions.getSelection().getActionCommand();
        }
```

```
for (int i = 0; i < useranswers.length; i++) {
            if (useranswers[i][0].equals(answers[i][1])) {
               score += 10;
            } else {
               score += 0;
             }
         setVisible(false);
         new Score(name, score);
      } }
   public void paint(Graphics g) {
      super.paint(g);
      String time = "Time left - " + timer + " seconds"; // 30
      g.setColor(Color.RED);
      g.setFont(new Font("Tahoma", Font.BOLD, 25));
      if (timer > 0) {
         g.drawString(time, 1100, 500);
      } else {
         g.drawString("Times up!!", 1100, 500);
      }
      timer--;
      try {
         Thread.sleep(1000);
         repaint();
      } catch (Exception e) {
         e.printStackTrace();
      }
      if (ans_given == 1) {
         ans_given = 0;
         timer = 30;
      } else if (timer < 0) {
         timer = 30;
         opt1.setEnabled(true);
         opt2.setEnabled(true);
         opt3.setEnabled(true);
         opt4.setEnabled(true);
         if (count == 8) {
            next.setEnabled(false);
            submit.setEnabled(true);
         }
         if (count == 9) { // submit button
            if (groupoptions.getSelection() == null) {
              useranswers[count][0] = "";
            } else {
               useranswers[count][0] = groupoptions.getSelection().getActionCommand();
            }
            for (int i = 0; i < useranswers.length; i++) {
               if (useranswers[i][0].equals(answers[i][1])) {
                  score += 10;
               } else {
                  score += 0;
               }}
            setVisible(false);
            new Score(name, score);
         } else { // next button
            if (groupoptions.getSelection() == null) {
              useranswers[count][0] = "";
            } else {
               useranswers[count][0] = groupoptions.getSelection().getActionCommand();
            }
            count++; // 0 // 1
            start(count);
         }}}
```

```
public void start(int count) {
        qno.setText("" + (count + 1) + ". ");
        question.setText(questions[count][0]);
        opt1.setText(questions[count][1]);
        opt1.setActionCommand(questions[count][1]);
        opt2.setText(questions[count][2]);
        opt2.setActionCommand(questions[count][2]);
        opt3.setText(questions[count][3]);
        opt3.setActionCommand(questions[count][3]);
        opt4.setText(questions[count][4]);
        opt4.setActionCommand(questions[count][4]);
        groupoptions.clearSelection();
    }
    public static void main(String[] args) {
        new Quiz("User");
    }
}
```

Score Page :

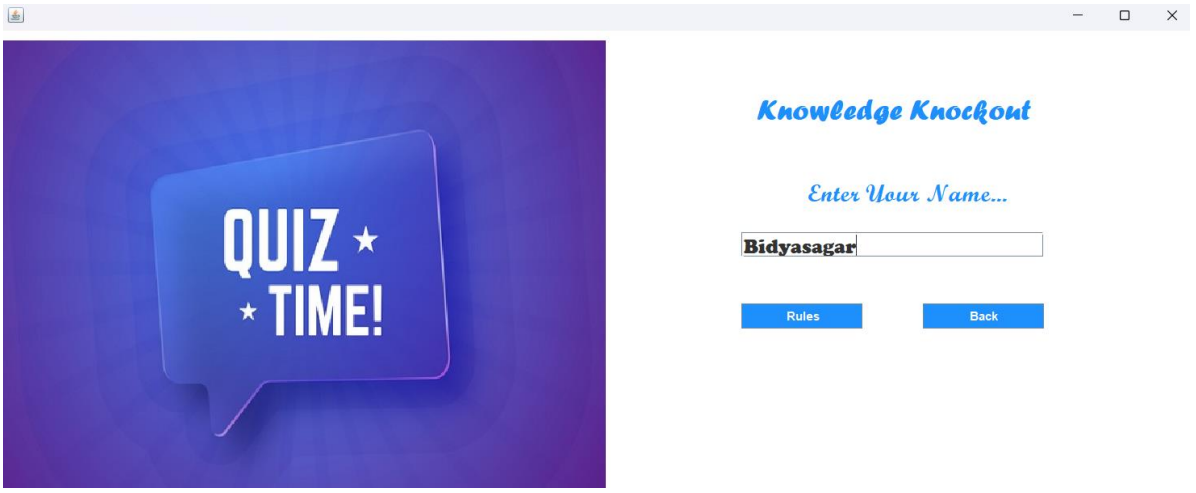
```
package quiz.application;

import java.awt.*;
import javax.swing.*;
import java.awt.event.*;
public class Score extends JFrame implements ActionListener {
    Score(String name, int score) {
        setBounds(400, 150, 750, 550);
        getContentPane().setBackground(Color.WHITE);
        setLayout(null);
        ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/score.png"));
        Image i2 = i1.getImage().getScaledInstance(300, 250, Image.SCALE_DEFAULT);
        ImageIcon i3 = new ImageIcon(i2);
        JLabel image = new JLabel(i3);
        image.setBounds(0, 200, 300, 250);
        add(image);
        JLabel heading = new JLabel("Thank you " + name + " for playing Knowledge Knockout");
        heading.setBounds(45, 30, 700, 30);
        heading.setFont(new Font("Forte", Font.BOLD, 26));
        heading.setForeground(new Color(30, 144, 254));
        add(heading);
        JLabel lblscore = new JLabel("Your score is " + score);
        lblscore.setBounds(350, 200, 300, 30);
        lblscore.setFont(new Font("Tahoma", Font.PLAIN, 26));
        add(lblscore);
        JButton submit = new JButton("Play Again");
        submit.setBounds(380, 270, 120, 30);
        submit.setBackground(new Color(30, 144, 255));
        submit.setForeground(Color.WHITE);
        submit.addActionListener(this);
        add(submit);
        setVisible(true);
    }
    public void actionPerformed(ActionEvent ae) {
        setVisible(false);
        new Login();
    }
    public static void main(String[] args) {
        new Score("User", 0);
    }
}
```

CHAPTER – 8 : OUTPUT

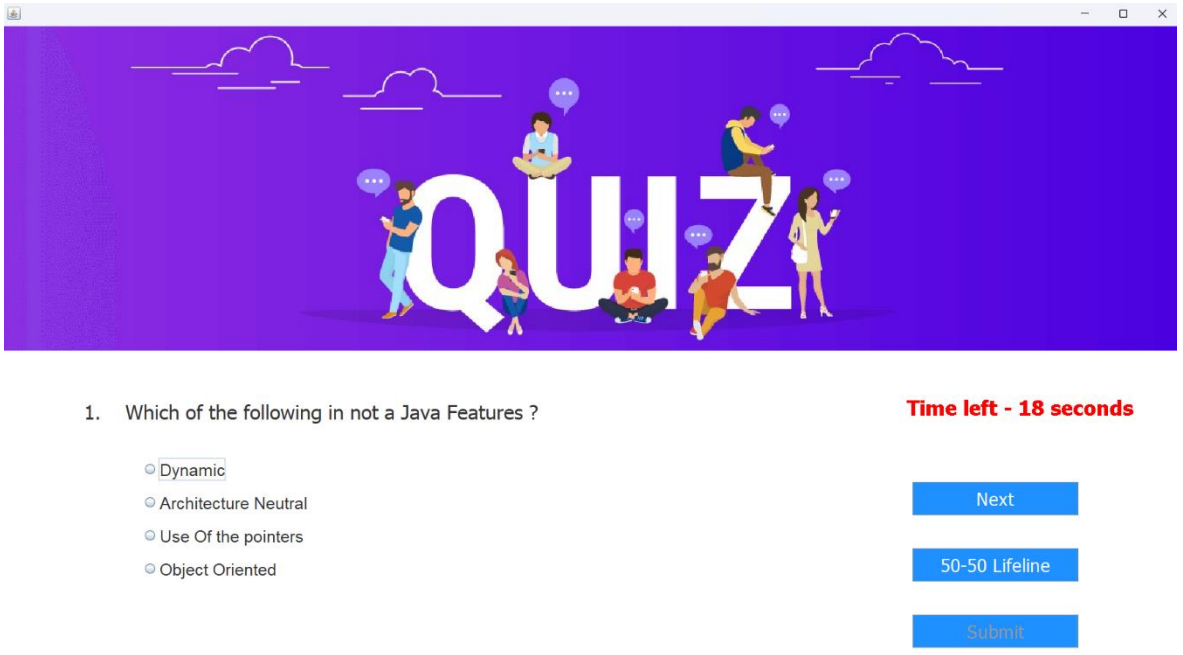
The Admin has the access to overall control the functionality of the system . The platform users i.e. Admin and user will be protected by login . Since the platform allows the user to make some changes that can have propagating effects in the system.

Login Page :

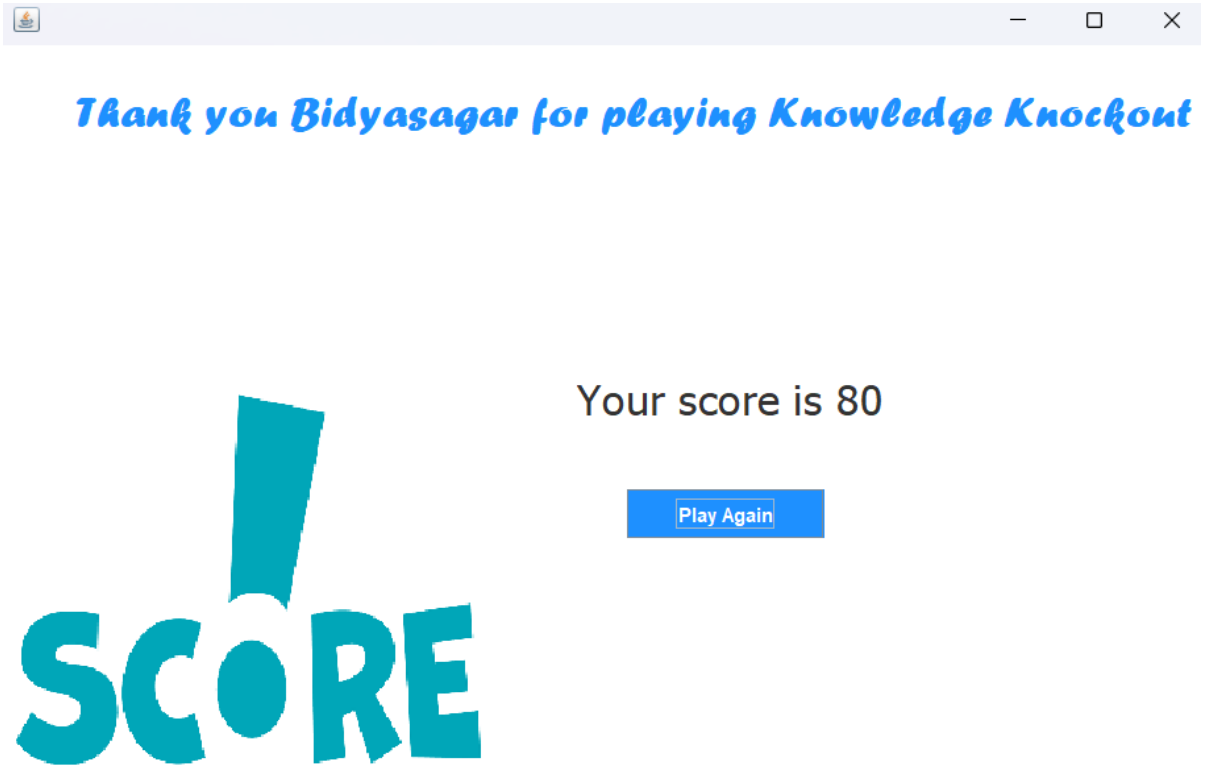


Rules Page :

Question Page :



Score Page :



CHAPTER – 9 : CONCLUSION

The completion of the Online Quiz Game project represents a significant achievement in combining engaging user experiences with robust backend functionalities. Through this project, several key objectives were met:

Educational Engagement: The game effectively engages users in a fun and educational manner, promoting learning through interactive quizzes. The variety of topics and difficulty levels ensures that users of all ages and backgrounds can participate and benefit from the content.

User Experience: Emphasis was placed on creating an intuitive and enjoyable user experience. Features like real-time feedback, score tracking, and leaderboards contribute to a competitive yet educational environment, encouraging repeated use and sustained engagement.

Scalability and Performance: The architecture of the application was designed with scalability in mind. Efficient database management and API design ensure that the system can handle a growing number of users without compromising performance.

Security: Important security measures were implemented to protect user data and ensure the integrity of the game. This includes secure user authentication, data encryption, and safe handling of user input to prevent common vulnerabilities like SQL injection and cross-site scripting (XSS).

In conclusion, the Online Quiz Game project not only meets its initial objectives but also opens up numerous possibilities for future development. It stands as a testament to the team's dedication to creating a fun, educational, and technically sound application. Moving forward, continuous user feedback and iterative development will be key to refining and expanding the game's capabilities, ensuring it remains a valuable tool for learning and entertainment.

CHAPTER – 10 : FUTURE SCOPE

The future scope of a quiz game project is quite promising, especially considering the growing popularity of online gaming and educational apps. Here are some avenues where you can explore the potential:

Expansion of Content: Continuously adding new quiz categories, questions, and challenges to keep the game engaging for users. This could include topics like history, science, pop culture, sports, etc.

Multiplayer Features: Implementing multiplayer modes where users can compete against friends or random opponents online, adding a social element to the game.

Customization Options: Allowing users to customize their avatars, quiz settings, and preferences to tailor the gaming experience to their liking.

Accessibility Features: Ensuring the game is accessible to users with disabilities by incorporating features such as screen readers, subtitles, and alternative input methods.

REFERENCE

Website Referred :

- https://www.youtube.com/watch?v=5RenxY9RyuY&list=PLraEtET93taeFgGWxCkDz7qgbToXZ7PCx
- https://youtu.be/5P8lCgteYKQ?si=RblxwSf1y5GD3eOb
- https://youtu.be/2WGY6SqWnJQ?si=2Fu-srJsxt2LtnTF

Books Referred :

Java The Complete Reference, Fifth Edition , C25 Herbert Schildt , McGraw - Hills

ASSESSMENT

Internal:

SL NO	RUBRICS	FULL MARK	MARKS OBTAINED	REMARKS
1	Understanding the relevance, scope and dimension of the project	10		
2	Methodology	10		
3	Quality of Analysis and Results	10		
4	Interpretations and Conclusions	10		
5	Report	10		
	Total	**50**		

Date: **Signature of the Faculty**

COURSE OUTCOME (COs) ATTAINMENT

➢ **Expected Course Outcomes (COs):**

(Refer to COs Statement in the Syllabus)

_____

_____

_____

_____

➢ **Course Outcome Attained:**

How would you rate your learning of the subject based on the specified COs?

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1 2 3 4 5 6 7 8 9 10

LOW HIGH

➢ **Learning Gap (if any):**

_____

_____

_____

_____

➢ **Books / Manuals Referred:**

_____

_____

_____

_____

Date: **Signature of the Student**

➢ **Suggestions / Recommendations:**

(By the Course Faculty)

_____

_____

_____

_____

Date: **Signature of the Faculty**