

Visvesvaraya Technological University

Belagavi, Karnataka-590 018



A MINI PROJECT REPORT

On

‘QUIZ GAME’

Submitted

In partial fulfilment requirements for the award of the Degree

of

BACHELOR OF ENGINEERING

IN

INFORMATION SCIENCE AND ENGINEERING

by

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NITTE
EDUCATION TRUST

N.M.A.M. INSTITUTE OF TECHNOLOGY
(An Autonomous Institution affiliated to Visvesvaraya Technological University, Belagavi)

Nitte – 574 110, Karnataka, India

(ISO 9001:2015 Certified)

Accredited with 'A' Grade by NAAC

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that Ms.Anusha B(4NM18IS021) and Ms.Deepika(4NM18IS036) has satisfactorily completed the Java Programming Mini Project work entitled “**QUIZ GAME**” of Second Year Bachelor of Engineering in Information Science and Engineering at NMAMIT, Nitte in the academic year 2019 - 20.

Project Guide

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Abstract

Quiz Game has questions that are set by ADMIN . It has multiple choice questions with and it also calculate scores of each correct answer. It is good for students of every age group it helps in increasing general knowledge about world Sports and computer etc. Don't need register simply give any user name and password should be entered to attend quiz and many users can attend quiz with same password and user don't need to worry about previous score . The application helps the user to increase his/her knowledge.

This quiz application includes two main modules, namely (i) User , (ii) Admin. This quiz includes three functions: (i) Winner of game, (ii) Login through username and password, and (iii) Score board of all participants.

Quiz is started by displaying one question with four options each based on topics set by ADMIN, if the answer is correct, score is incremented by four and no negative marks for wrong answers .Final score will be displayed along with winner of quiz .

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INTRODUCTION

The “Quiz Game” is to facilitate a user friendly environment for all users and reduces the manual effort. In past days quiz is conducted manually but in further resolution of the technology we are able to generate the score and pose the queries automatically. The functional requirements include to create users that are going to participate in the quiz, automatic score and report generation and administrative tasks like add, delete, update for admin privilege users. In this application, all the permissions lies with the administrator i.e., specifying the details of the quiz with checking result will show to interviewee or not, addition of question and answers, marks for each question, generate report with score for each quiz.

2.ANALYSIS & REQUIREMENT SPECIFICATION

Requirements analysis in systems engineering and software engineering, encompasses those tasks that go into determining the needs or conditions to meet for a new or altered product, taking account of the possibly conflicting requirements of the various stakeholders, such as beneficiaries or users. Requirements analysis is critical to the success of a development project. Requirements must be documented, actionable, measurable, testable, related to identified business needs or opportunities, and defined to a level of detail sufficient for system design. Requirements can be architectural, structural, behavioral, functional, and non-functional.

The development of project needs some requirement to make the project perform better and achieves the goal of project. In developing Online Quiz, the capabilities of computer and hardware plays a big impact on project quality.

1. Existing system

- Then Welcome(player number)will be appear user has to answer multiple choice questions .
- Then Welcome(user profile) will be appear user has to choose any of three option 'Start Game', 'High Score', 'Logout'.
- After choosing start game continue page will be appear to continue game.
- After Clicking on continue multiple choice questions will comautomatically one by one with a specific time limit.

- At the end of the game it will show the score of the user and winner of quiz.

All these findings demands new application which will reduce the manual work & do everything automatically. Also the existing systems have some major drawbacks which motivate us to develop new system.

Those drawbacks are as follows:

- Existing systems has not type of fields like questions History,Game,Sports,Geography etc.

2.Proposed system

- Unlike the websites where you need to make account for every quiz you want to play, using this game ,you just have to enter correct username and password and then you will get access to all quizzes from it.
- Multiple choice questions will come automatically one by one.
- After one user has entered answers then its next user's turn to answer.
- Each right answer will automatically count the score.

2.1. SCOPE:

This project has a wide scope as it is better than the manual tests. Following are some of its advantages:

- Both educational organizations and corporate companies can employ this Quiz.

- It, being an application based on web may be taken at any place or any time as the location is not considered.
- The presence of the examiner is not required while the candidate is appearing for the test.

2.2. Requirements:

○ FUNCTIONAL REQUIREMENTS:

1. Admin

- Can set password for users to attend quiz.
- Can enter subjects and enter question with it's options and answer at the time of creating quiz.
- Can set unlimited question for each quiz required to be completed.
- Can set limit of number of players in quiz.

2. Student

- Can search quiz according to their interest.
- Enter the username and password of quiz and ready to start it .
- After completing all questions, result will be displayed automatically.
- Can view the winner of quiz game.

- **NON-FUNCTIONAL REQUIREMENTS:**

- 1.Hardware Requirements**

- RAM of 1 GB
 - 105 keys keyboard
 - Optical Mouse
 - Monitor
 - Pentium IV processor

- 2.Software Requirements:**

- Operating system : Windows XP (or latest).
 - Front end : Java Runtime
 - Platform : Java

2.3. DATABASE DESIGN

TABLE: ADMINGK

NAME	TYPE
NO	NUMBER(10)
CAT	VARCHAR(10)
QUESTION	VARCHAR(10)
OPT1	VARCHAR(10)
OPT2	VARCHAR(10)
OPT3	VARCHAR(10)
ANS	VARCHAR(10)

TABLE: RANK

NAME	TYPE
USERNAME	VARCHAR(10)
MARK	NUMBER(10)
CATEGORY	VARCHAR(10)

TABLE: ADMINUSER

NAME	TYPE
USERNAME	VARCHAR(10)
PASSWORD	VARCHAR(10)
NAME	VARCHAR(10)
EMAILID	VARCHAR(10)
GENDER	VARCHAR(10)
DOB	VARCHAR(10)

2.4. DATAFLOW DIAGRAM:

A data flow diagram(DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system. DFDs can also be used for the visualization of data processing.

A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of process or information about whether processes will operate in sequence or in parallel.

Level 0 DFD:

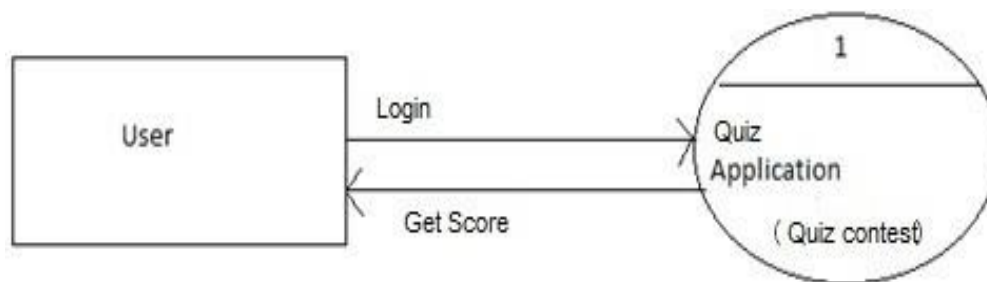


Fig:

3.IMPLEMENTATION

1)Login through username and password.

```
import java.io.FileNotFoundException;
import java.util.Scanner;
//Login form
public class Login {

    public static void attempt_login_player1()
    {
        String Username;
        String Password;
        {
            //username and password
            Password = "123";
            Username = "player1";
            System.out.println("Player 1 Login :");
            //scanner to scan keyboard input
            Scanner input = new Scanner(System.in);
            //get login details
            System.out.println("Enter Username :");
            String username = input.next();
            System.out.println("Enter Password :");
            String password = input.next();
```

```

        if (username.equals(Uname) &&
password.equals(Password)) {

        System.out.println("Access Granted! Welcome!");
        attempt_login_player2();
        }

        else if (username.equals(Uname)) {
        System.out.println("Invalid Password!");
        attempt_login_player1();
        } else if (password.equals(Password)) {
        System.out.println("Invalid Username!");
        attempt_login_player1();
        }
        else {
        System.out.println("Invalid Username & Password!");
        attempt_login_player1();
        }
        }
        }

public static void attempt_login_player2()
{
        String Uname;
        String Password;
        {

```

```

        Password = "123";
        Username = "player2";
        System.out.println("Player 2 Login :");
        Scanner input = new Scanner(System.in);
        System.out.println("Enter Username :");
        String username = input.next();
        System.out.println("Enter Password :");
        String password = input.next();
        if (username.equals(Username) &&
password.equals>Password)) {

        System.out.println("Access Granted! Welcome!");
        try {
            Game.start_game();
        } catch (FileNotFoundException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }
    }

    else if (username.equals(Username)) {
        System.out.println("Invalid Password!");
        attempt_login_player2();
    } else if (password.equals>Password)) {
        System.out.println("Invalid Username!");
        attempt_login_player2();
    }
}

```

```

    }
    else {
        System.out.println("Invalid Username & Password!");
        attempt_login_player2();
    }
}
}

public static void main(String[] args) {
    // TODO Auto-generated method stub
    attempt_login_player1();
}
}

```

2)Decide who wins.

```

import java.io.File;
import java.io.FileNotFoundException;
import java.util.ArrayList;
import java.util.Scanner;

```

```

/*

```

* To change this license header, choose License Headers in Project Properties.

* To change this template file, choose Tools | Templates

* and open the template in the editor.

```
*/
```

```
public class Game {
```

```
/**
```

```
 * @param args the command line arguments
```

```
 * @throws java.io.FileNotFoundException
```

```
*/
```

```
public static void start_game() throws FileNotFoundException {
```

```
    //Scanner to read file input
```

```
    Scanner scan = new Scanner(new File("questions.txt"));
```

```
    ArrayList<Question> questions = new ArrayList<>();
```

```
    int playerOnePoints = 0;
```

```
    int playerTwoPoints = 0;
```

```
    //Scanner to scan keyboard input
```

```
    Scanner kb = new Scanner(System.in);
```

```
/**
```

```
 * Create object instances of each question and pass them into an
```

```
 * ArrayList
```

```
*/
```

```
int numQuestions = Integer.parseInt(scan.nextLine());
```

```
for(int i = 0; i < numQuestions; i++) {
```



```

questions.add(new Question(scan.nextLine(), scan.nextLine(),
    scan.nextLine(), scan.nextLine(), scan.nextLine(),
    scan.nextLine()));
}

/**
 * Alternate questions to each player, starting with player one.
 * Notify the players if they guessed correctly or not and track
 * their points.
 */
for(int i = 0; i < questions.size(); i++) {
    //Give every other question to player one
    if(i % 2 == 0) {
        System.out.println("Player One, please answer the following"
            + " question:\n");
        printQuestion(questions.get(i));
        String answer = kb.next();
        if(answer.equalsIgnoreCase(questions.get(i).correctAnswer)) {
            playerOnePoints++;
            System.out.println("You got it right! You have "
                + playerOnePoints + " points.\n");
        } else {
            System.out.println("Sorry, that was incorrect! You have "
                + playerOnePoints + " points.\n");
        }
    }
}

```

```

    } else{ //Give every other question to player two
        System.out.println("Player Two, please answer the following"
            + " question:\n");
        printQuestion(questions.get(i));
        String answer = kb.next();
        if(answer.equalsIgnoreCase(questions.get(i).correctAnswer)) {
            playerTwoPoints++;
            System.out.println("You got it right! You have "
                + playerTwoPoints + " points.\n");
        } else {
            System.out.println("Sorry, that was incorrect! You have "
                + playerTwoPoints + " points.\n");
        }
    }
}

//Decide who wins
if(playerOnePoints > playerTwoPoints) {
    System.out.print("Player one wins!");
} else {
    System.out.print("Player two wins!");
}

}

```

```

public static void printQuestion(Question question) {
    System.out.println(question.question);
    System.out.println(question.answerOne);
    System.out.println(question.answerTwo);
    System.out.println(question.answerThree);
    System.out.println(question.answerFour);
}
}

```

3)Quiz questions.

```

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

```

```

public class Question {

    String question = null;
    //Answer choices
    String answerOne = null;
    String answerTwo = null;
    String answerThree = null;
    String answerFour = null;
    //Correct answer

```

```
String correctAnswer = null;
```

```
public Question(String question, String answerOne, String answerTwo,  
    String answerThree, String answerFour, String correctAnswer) {
```

```
    this.question = question;
```

```
    //Answer choices
```

```
    this.answerOne = answerOne;
```

```
    this.answerTwo = answerTwo;
```

```
    this.answerThree = answerThree;
```

```
    this.answerFour = answerFour;
```

```
    //Correct answer
```

```
    this.correctAnswer = correctAnswer;
```

```
}
```

```
//ArrayList<Question> questions = new ArrayList<>();
```

```
// question.add(new Question(scan.nextLine))
```

```
//[question1, question2]
```

```
}
```

4. RESULT:

Output 1)

```
Player 1 Login :  
Enter Username :  
player1  
Enter Password :  
123  
Access Granted! Welcome!  
Player 2 Login :  
Enter Username :  
player2 123  
Enter Password :  
Access Granted! Welcome!  
Player One, please answer the following question:  
  
The national chemical laboratory located in  
A. Mumbai  
B. Bengaluru  
C. Hyderabad  
D. Pune
```

Fig: Player 1 and player 2 enters correct username and password.

Output 2)

```
Player 1 Login :  
Enter Username :  
player11  
Enter Password :  
123  
Invalid Username!  
Player 1 Login :  
Enter Username :  
player1  
Enter Password :  
123  
Access Granted! Welcome!  
Player 2 Login :  
Enter Username :  
player2  
Enter Password :  
123  
Access Granted! Welcome!  
Player One, please answer the following question:  
  
The national chemical laboratory located in  
A. Mumbai  
B. Bengaluru  
C. Hyderabad  
D. Pune
```

Fig: Player 1 enters incorrect username.

Output 3)

```
Player 1 Login :  
Enter Username :  
player1  
Enter Password :  
123  
Access Granted! Welcome!  
Player 2 Login :  
Enter Username :  
player22  
Enter Password :  
123  
Invalid Username!  
Player 2 Login :  
Enter Username :  
player2  
Enter Password :  
123  
Access Granted! Welcome!  
Player One, please answer the following question:  
  
The national chemical laboratory located in  
A. Mumbai  
B. Bengaluru  
C. Hyderabad  
D. Pune
```

Fig: Player 2 enters incorrect username.

Output 4)

```
Player 1 Login :  
Enter Username :  
playerr  
Enter Password :  
1234  
Invalid Username & Password!  
Player 1 Login :  
Enter Username :  
player1  
Enter Password :  
123  
Access Granted! Welcome!  
Player 2 Login :  
Enter Username :  
player33  
Enter Password :  
326  
Invalid Username & Password!  
Player 2 Login :  
Enter Username :  
player2  
Enter Password :  
123  
Access Granted! Welcome!  
Player One, please answer the following question:  
  
The national chemical laboratory located in  
A. Mumbai  
B. Bengaluru  
C. Hyderabad  
D. Pune
```

Fig: Both players enters wrong username and password.

Output 5)

```
Player 1 Login :
Enter Username :
player1
Enter Password :
123
Access Granted! Welcome!
Player 2 Login :
Enter Username :
player2
Enter Password :
123
Access Granted! Welcome!
Player One, please answer the following question:
```

The national chemical laboratory located in

- A. Mumbai
- B. Bengaluru
- C. Hyderabad
- D. Pune

D

You got it right! You have 1 points.

Player Two, please answer the following question:

When did the Liberty Bell get its name?

- A. when it was made, in 1701
- B. when it rang on July 4, 1776
- C. when it became a symbol of the abolition of slavery
- D. none of the above

A

Sorry, that was incorrect! You have 0 points.

Player One, please answer the following question:

Which is the capital of Italy?

- A. Panaji
- B. Dispur
- C. Patna
- D. Rome

D

You got it right! You have 2 points.

Player Two, please answer the following question:

Which of those allows duplicate elements?

- A. Set
- B. List
- C. All
- D. None of the above

B

You got it right! You have 1 points.

Player One, please answer the following question:

Which of these interfaces handle sequences?

- A. Set
- B. Collections
- C. List
- D. Comparator

C

You got it right! You have 3 points.

Player one wins!

Fig: Decides who wins and displaying the score.

5.CONCLUSION:

This quiz game provides facility to conduct quiz world wide. It saves time as it allows number of students to give the exam at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated .

Administrator has a privilege to create, modify and delete particular questions.

User can attend quiz by entering correct username and password and give the test with his specific password , and can see the results as well as winner of quiz .

6.REFERENCES

1. Install Prerequisite Software:

✓Java 1.8

✓Eclipse IDE

✓Install Maven plugin in Eclipse

(<http://download.eclipse.org/technology/m2e/releases/>)

2. Set Environment Variables (Paths may vary based on OS and installation):

✓CLASSPATH=C:\Program Files\Java\jdk1.8.0_20\bin

✓PATH=C:\Program Files\Java\jdk1.8.0_20\bin

✓JAVA_HOME=C:\Program Files\Java\jdk1.8.0_20

3. David J.Eck,Java Virtual Machine, 7 edition,University Press of Florida(2014).

4. Troy Drowning and John Mayer,Java Virtual Machine,Edition 1,O'Reilly Media(1997).

1. Import project into eclipse.

2. Make sure eclipse is using correct JDK.

3. Database setup(<https://medium.com/@rabowlen/building-a-trivia-game-in-java-4e771899c553>)