**“Quiz Using Basic Java”**

A Java Lab Project Report

Submitted in Partial Fulfillment of the Requirements

For the award of the Degree of

**Bachelor of Technology**

**in**

**Electronics & Computer Engineering (ECM)**

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**DEPARTMENT OF ELECTRONICS & COMPUTER ENGINEERING**

**SREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY (AUTONOMOUS)**



**CERTIFICATE**

This is to certify that the Java lab project entitled **“Quiz using Basic Java”,** submitted by **Jitta Yashwanth Reddy**, **Ratnala Sai Ganesh, Y Mohana Laxmi** bearing Roll No. **21311A1975**, **21311A1976, 21311A1977** towards partial fulfillment for the award of Bachelor’s Degree in Electronics & Computer Engineering from Sreenidhi Institute of Science & Technology, Ghatkesar, Hyderabad, is a record of bonafide work done by him. The results embodied in the work are not submitted to any other University or Institute for award of any degree or diploma.

**Ms. N SWAPNA Dr.D. MOHAN (PhD)**

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**DECLARATION**

This is to certify that the work reported in the present Java project titled **“Quiz using Basic Java**" is a record work done by me in the **Department of Electronics and Computer Engineering, Sreenidhi Institute of Science and Technology, Yamnampet, Ghatkesar.**

The report is based on the project work done entirely by our team and not copied from any other source.

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**DESCRIPTION**

This project is all about a quiz which is developed using basic Java programming like if, else statements. This is the program of quiz game which test our IQ. First statement for greeting (Welcome). Asking for interest if player text "yes" i.e., only start. If player text "no" i.e., quit & end the game. Initial score is equal to zero before starting answering the given questions. Display questions from 1 to 10. For every question this Java program automatically checks if the player entered answer is correct or not if it corrects i.e., display correct else display in correct. If and only if player answer is correct i.e., only score will be incremented else no change in score (no-negative percentage). After completing all the 10 questions it displays how many questions do you attempt correctly out of 10 and also display over-all percentage. Final statement ends with thanks greeting.

**PROGRAM: -**

import java.awt.\*;

import java.awt.event.\*;

import javax.swing.\*;

public class Project7567 extends JFrame {

private JLabel questionLabel;

private JLabel headingLabel;

private JLabel textLabel;

private JTextField answerField;

private JButton submitButton;

private int score;

private String[][] questions = {

{"What is the name of the Java compiler?", "javac"},

{"Which keyword is used to define a method that does not return any value in Java?", "void"},

{"Which Java keyword is used to define a subclass of a class?", "extend"},

{"Dancing Java program is known as?", "swing"},

{"What is the name of the method that gets automatically invoked when an object is created?", "constructor"},

{"What do you call a group of Java developers?", "array"},

{"What is JVM?", "platform"},

{"What is the process of combining multiple classes into one called?", "inheritance"},

{"Which keyword is used to handle exceptions in Java?", "try"},

{"What is the keyword used to declare a variable that won't change its value?", "final"}

};

private int currentQuestionIndex;

public Project7567() {

super("Quiz");

headingLabel = new JLabel("Welcome to the Quiz");

headingLabel.setFont(new Font("Arial", Font.BOLD, 20));

questionLabel = new JLabel();

answerField = new JTextField(20);

submitButton = new JButton("Submit");

textLabel = new JLabel("Done By J. Yashwanth Reddy, R. SaiGanesh, Y. MohanaLaxmi");

textLabel.setFont(new Font("Times New Roman", Font.ITALIC, 10));

score = 0;

currentQuestionIndex = 0;

JPanel panel = new JPanel();

panel.setLayout(new GridBagLayout());

GridBagConstraints gbc = new GridBagConstraints();

gbc.insets = new Insets(10, 10, 10, 10);

gbc.gridx = 0;

gbc.gridy = 0;

gbc.gridwidth = 2;

gbc.anchor = GridBagConstraints.CENTER;

panel.add(headingLabel, gbc);

gbc.gridy = 1;

gbc.gridwidth = 2;

panel.add(questionLabel, gbc);

gbc.gridy = 2;

gbc.fill = GridBagConstraints.HORIZONTAL;

panel.add(answerField, gbc);

gbc.gridy = 3;

gbc.gridwidth = 2;

panel.add(submitButton, gbc);

gbc.gridy = 4;

gbc.gridwidth = 2;

panel.add(textLabel, gbc);

add(panel);

submitButton.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

checkAnswer();

}

});

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

pack();

setLocationRelativeTo(null);

setVisible(true);

showNextQuestion();

}

private void showNextQuestion() {

if (currentQuestionIndex < questions.length) {

questionLabel.setText(questions[currentQuestionIndex][0]);

answerField.setText("");

} else {

showResult();

}

}

private void checkAnswer() {

String userAnswer = answerField.getText();

if (userAnswer.equalsIgnoreCase(questions[currentQuestionIndex][1])) {

score++;

}

currentQuestionIndex++;

showNextQuestion();

}

private void showResult() {

double percentage = (score / (double) questions.length) \* 100;

JOptionPane.showMessageDialog(this, "You got " + score + " questions correct\n" +

"You got " + percentage + "%");

System.exit(0);

}

public static void main(String[] args) {

SwingUtilities.invokeLater(new Runnable() {

public void run() {

new Project7567();

}

});

}

}

**OUTPUT: -**























**EXPLAINATION: -**

* This is the program of quiz game which test our IQ.
* First statement for greeting (Welcome).
* Initial score is equal to zero before starting answering the given questions.
* Let’s start the game.
* Display questions from 1 to 10. For every question this python program automatically checks if the player entered answer is correct or not if it corrects i.e., display correct else display in correct.

import java.util.\*;

((background code/program))

class Project {

public static void main(String[] args) {

System.out.println("WELCOME TO QUIZ! :) Nothing is impossible, the word itself says I am possible");

Scanner s = new Scanner(System.in);

System.out.println("Do you want to play? (yes/no)");

String gaming = s.nextLine();

if (!gaming.equals("yes")) {

System.out.println("Okay, maybe next time. Goodbye!");

System.exit(0);

}

System.out.println("Okay! Let's start the game :");

int score = 0;

System.out.println("1. What is the name of the Java compiler? ans: javac... Is it correct? Type yes or no");

String Q1 = s.nextLine();

if (Q1.equalsIgnoreCase("yes")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("2. Which keyword is used to define a method that does not return any value in Java? " +

"ans: enter the keyword like int...");

String Q2 = s.nextLine();

if (Q2.equalsIgnoreCase("void")) {

System.out.println("Correct");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("3. Which Java keyword is used to define a subclass of a class? ans: case-sensitive");

String Q3 = s.nextLine();

if (Q3.equalsIgnoreCase("extend")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("4. Dancing Java program is known as? ans: dancer or swing");

String Q4 = s.nextLine();

if (Q4.equalsIgnoreCase("swing")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("5. What is the name of the method that gets automatically invoked when an object is created? " +

"ans: Hint\_con");

String Q5 = s.nextLine();

if (Q5.equalsIgnoreCase("constructor")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("6. What do you call a group of Java developers? ans: hint\_collection of objects of the same type");

String Q6 = s.nextLine();

if (Q6.equalsIgnoreCase("array")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("7. What is JVM? ans: OS/Platform");

String Q7 = s.nextLine();

if (Q7.equalsIgnoreCase("platform")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("8. What is the process of combining multiple classes into one called? " +

"ans: hint\_parent - child");

String Q8 = s.nextLine();

if (Q8.equalsIgnoreCase("inheritance")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("9. Which keyword is used to handle exceptions in Java? ans: hint\_try\_again");

String Q9 = s.nextLine();

if (Q9.equalsIgnoreCase("try")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("10. What is the keyword used to declare a variable that won't change its value? " +

"ans: hint\_final question");

String Q10 = s.nextLine();

if (Q10.equalsIgnoreCase("final")) {

System.out.println("CORRECT");

score += 1;

} else {

System.out.println("INCORRECT");

}

System.out.println("You got " + score + " questions correct");

System.out.println("You got " + ((score / 10.0) \* 100) + "%");

System.out.println("\tThank you for playing");

System.out.println("\t\t\t\t\t\t\tproject by RATNALA SAI GANESH\n\t\t\t\t\t\t\tY.MOHANA LAXMI" +

"\n\t\t\t\t\t\t\tJITTA YASHWANTH REDDY");

}

}

* If and only if player answer is correct i.e., only score will be incremented else no change in score (no-negative percentage).
* After completing all the 10 questions it displays how many questions do you attempt correctly out of 10 and also display over-all percentage.
* Final statement ends with thanks greeting.

**EXAMPLE MODEL: -**



**STEPS FOR EXECUTING THE PROGRAM**

The program is saved in the following process:

* Open the notepad in your laptop or desktop
* Do not forget to download the JDK from the online which is used as interpreter to executing the code.
* Then start writing the code in the Notepad
* **NOTE:** Write the program very carefully try to write it without errors and do the follow the steps of program that are required in the Java.
* Then save the file with .java extension.
* Open in CMD-prompt(jdk) the file and execute in the program then you see the errors and work on it.

**LIMITATION**

* The solutions to the questions in the quiz may be not actually know to the users.
* The programmer needs to have code the program without any syntax or logical errors.
* The users have no option to clear their response once they have submitted or entered the answer to the question.
* The users cannot see the remaining questions without completing the recent question.
* The previous answers cannot be changed.

**FUTURE ADVANCEMENTS**

* **Make it multiplayer -** Try modifying this game so that more than one player can enjoy this game at once. You can do this by simply adding an additional **for** loop which will contain the names of the players and score of each player is stored separately. The player with the highest score will win the game.
* **Use MCQ format -** Not just quiz, you can also use it conduct MCQ tests. All you have to do is modify the print function to print the multiple answers and the player will have to guess the right answer.
* **Use an API -** Make use of an interesting API to automatically fetch questions from the web so you do not have to get into the hassle of creating the questions and answers on your own.

**CONCLUSION**

From this project one can understand the basic operations used in the Java programming. Using those basic we can build a program. This is the project is basically a basic quiz which is developed using if, else conditions and doing mathematical calculations for the average score.

**REFERENCES**

**Chatgpt-** [**https://chat.openai.com/**](https://chat.openai.com/) **(for GUI )**

**Youtube-** [**https://youtu.be/Kmgo00avvEw**](https://youtu.be/Kmgo00avvEw) **(for GUI )**