Java Programming Assignment - Simple Quiz Game

# Introduction

This Java program simulates a multiple-choice quiz game with five questions about Chelsea Football Club. It prompts the user to answer each question by selecting an option (A, B, C, or D). The program validates user input, keeps track of the correct answers using if and switch-case statements, and calculates the final score as a percentage.

# Java Code

import java.util.Scanner;

public class QuizGame {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

String[] questions = {

"1. When was Chelsea Football Club founded?\nA. 1892\nB. 1905\nC. 1910\nD. 1923",

"2. What is the name of Chelsea's home stadium?\nA. Old Trafford\nB. Anfield\nC. Stamford Bridge\nD. Emirates Stadium",

"3. Who is Chelsea's all-time top scorer?\nA. Didier Drogba\nB. Frank Lampard\nC. Gianfranco Zola\nD. Jimmy Greaves",

"4. Which year did Chelsea win their first UEFA Champions League title?\nA. 2008\nB. 2012\nC. 2014\nD. 2016",

"5. What are the traditional colors of Chelsea's home kit?\nA. Red and White\nB. Blue and White\nC. Green and Black\nD. Yellow and Blue"

};

char[] answers = {'B', 'C', 'B', 'B', 'B'};

int score = 0;

for (int i = 0; i < questions.length; i++) {

System.out.println(questions[i]);

System.out.print("Your answer (A/B/C/D): ");

String input = scanner.nextLine().toUpperCase();

while (!input.equals("A") && !input.equals("B") && !input.equals("C") && !input.equals("D")) {

System.out.print("Invalid input. Please enter A, B, C, or D: ");

input = scanner.nextLine().toUpperCase();

}

switch (input.charAt(0)) {

case 'A':

case 'B':

case 'C':

case 'D':

if (input.charAt(0) == answers[i]) {

score++;

}

break;

default:

System.out.println("Unexpected error.");

}

System.out.println();

}

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

System.out.println("Quiz completed!");

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

System.out.printf("Your score: %.2f%%\n", percentage);

scanner.close();

}

}

# Explanation

This Java program presents five multiple-choice questions focused on Chelsea Football Club. It ensures input is valid, uses a switch-case block to compare user answers with correct ones, and keeps track of the user's score. The score is finally presented as a percentage.

# Output Screenshot

