|  |
| --- |
| Game |
| -player: Player  -name: String |
| +checkAnswer() : boolean //true if the answer’s right  +getQuestion(): question |

import java.util.Scanner;

/\*\*

\* Game runs the Trivia game by implementing other classes

\*

\* Ramhith, Jessica, Daniel

\* @5.19.17

\*/

public class Game

{

public static void main(String[] args)

{

/\*

\*Instantiates Player, QuestionTracker objects

\*Instructions for how to play:

\*Enter name, choose category and point value (100 is easiest, 600 is the hardest)

\*Read the question and choose an answer (type in a, b, c, or d ONLY)

\*If you're right, points are added but if you're wrong, points are subtracted

\*You'll be able to keep playing until you have negative points

\*/

Player player=new Player();

QuestionTracker trackQ = new QuestionTracker();

Scanner scan=new Scanner(System.in);

System.out.println("Play this trivia game! What's your name: ");

String name=scan.nextLine();

System.out.println("After you choose your category and point value, answer with the LETTER only (ex. a, b, c, d)");

/\*

\* Stops when player has negative points, makes sure user inputs valid category

\*/

while(player.getPoints()>=0){

System.out.println("Choose a category: History, Math, Geography, Science, Computer Science, Pop culture, or Random");

String category=scan.nextLine();

Category obj1=new History();

while(!(category.equalsIgnoreCase("history") || category.equalsIgnoreCase("math") || category.equalsIgnoreCase("geography")|| category.equalsIgnoreCase("science")|| category.equalsIgnoreCase("computer science")|| category.equalsIgnoreCase("pop culture")|| category.equalsIgnoreCase("random") ))

{

System.out.println("Invalid category. Try again: ");

category=scan.nextLine();

}

/\*

\* Creates objects based on category chosen

\*/

if(category.equalsIgnoreCase("history"))

{

obj1= new History();

}

else if(category.equalsIgnoreCase("math"))

{

obj1= new Math();

}

else if(category.equalsIgnoreCase("geography"))

{

obj1= new Geography();

}

else if(category.equalsIgnoreCase("science"))

{

obj1= new Science();

}

else if(category.equalsIgnoreCase("computer science"))

{

obj1= new ComputerScience();

}

else if(category.equalsIgnoreCase("pop culture"))

{

obj1= new PopCulture();

}

else

{

obj1= new Random();

}

System.out.println("Choose the amount of points you want to win/risk(question difficulty increases with more points): 100, 200, 300, 400, 500, 600 ");

int points=scan.nextInt();

/\*

\* Makes sure point value is valid

\*/

while( points!=100 && points!=200 && points!=300 && points!=400 && points!=500 && points!=600)

{

System.out.println("Invalid amount of points. Try again: ");

points=scan.nextInt();

}

String g=scan.nextLine();

/\*

\* Checks if questions have been used before, if it has, user has to pick a different question

\*/

while(points == 100 && !trackQ.checkQ(obj1.getQ1()))

{

System.out.println("Trying to cheat! We caught you! You have already answered this question Choose a different point value:");

points = scan.nextInt();

String h = scan.nextLine();

}

while(points == 200 && !trackQ.checkQ(obj1.getQ2()))

{

System.out.println("Trying to cheat! We caught you! You have already answered this question Choose a different point value:");

points = scan.nextInt();

String h = scan.nextLine();

}

while(points == 300 && !trackQ.checkQ(obj1.getQ3()))

{

System.out.println("Trying to cheat! We caught you! You have already answered this question Choose a different point value:");

points = scan.nextInt();

String h = scan.nextLine();

}

while(points == 400 && !trackQ.checkQ(obj1.getQ4()))

{

System.out.println("Trying to cheat! We caught you! You have already answered this question Choose a different point value:");

points = scan.nextInt();

String h = scan.nextLine();

}

while(points == 500 && !trackQ.checkQ(obj1.getQ5()))

{

System.out.println("Trying to cheat! We caught you! You have already answered this question Choose a different point value:");

points = scan.nextInt();

String h = scan.nextLine();

}

while(points == 600 && !trackQ.checkQ(obj1.getQ6()))

{

System.out.println("Trying to cheat! We caught you! You have already answered this question Choose a different point value:");

points = scan.nextInt();

String h = scan.nextLine();

}

/\*

\* checks if answer is correct or valid, adds or subtracts points accordingly

\*/

if( points==100)

{

System.out.println(obj1.getQ1());

String answer=scan.nextLine();

while(!answer.equals("a") && !answer.equals("b") && !answer.equals("c") && !answer.equals("d"))

{

System.out.println("That is not a valid answer. Please choose a, b, c, or d. \nAnswer: ");

answer=scan.nextLine();

}

if(obj1.getA1(answer))

{

player.addPoints(100);

System.out.println("Nice job.");

}

else

{

player.subtractPoints(100);

System.out.println("Sorry the answer was "+ obj1.getA1() +".");

}

trackQ.removeQ(obj1.getQ1());

}

else if( points==200)

{

System.out.println(obj1.getQ2());

String answer=scan.nextLine();

while(!answer.equals("a") && !answer.equals("b") && !answer.equals("c") && !answer.equals("d"))

{

System.out.println("That is not a valid answer. Please choose a, b, c, or d. \nAnswer: ");

answer=scan.nextLine();

}

if(obj1.getA2(answer))

{

player.addPoints(200);

System.out.println("Great job!");

}

else

{

player.subtractPoints(200);

System.out.println("Sorry the answer was "+ obj1.getA2() +".");

}

trackQ.removeQ(obj1.getQ2());

}

else if( points==300)

{

System.out.println(obj1.getQ3());

String answer=scan.nextLine();

while(!answer.equals("a") && !answer.equals("b") && !answer.equals("c") && !answer.equals("d"))

{

System.out.println("That is not a valid answer. Please choose a, b, c, or d. \nAnswer: ");

answer=scan.nextLine();

}

if(obj1.getA3(answer))

{

player.addPoints(300);

System.out.println("Amazing job!");

}

else

{

player.subtractPoints(300);

System.out.println("Sorry the answer was "+ obj1.getA3() +".");

}

trackQ.removeQ(obj1.getQ3());

}

else if( points==400)

{

System.out.println(obj1.getQ4());

String answer=scan.nextLine();

while(!answer.equals("a") && !answer.equals("b") && !answer.equals("c") && !answer.equals("d"))

{

System.out.println("That is not a valid answer. Please choose a, b, c, or d. \nAnswer: ");

answer=scan.nextLine();

}

if(obj1.getA4(answer))

{

player.addPoints(400);

System.out.println("Excellent job!");

}

else

{

player.subtractPoints(400);

System.out.println("Sorry the answer was "+ obj1.getA4() +".");

}

trackQ.removeQ(obj1.getQ4());

}

else if( points==500)

{

System.out.println(obj1.getQ5());

String answer=scan.nextLine();

while(!answer.equals("a") && !answer.equals("b") && !answer.equals("c") && !answer.equals("d"))

{

System.out.println("That is not a valid answer. Please choose a, b, c, or d. \nAnswer: ");

answer=scan.nextLine();

}

if(obj1.getA5(answer))

{

player.addPoints(500);

System.out.println("Phenomenal job!");

}

else

{

player.subtractPoints(500);

System.out.println("Sorry the answer was "+ obj1.getA5() +".");

}

trackQ.removeQ(obj1.getQ5());

}

else

{

System.out.println(obj1.getQ6());

String answer=scan.nextLine();

while(!answer.equals("a") && !answer.equals("b") && !answer.equals("c") && !answer.equals("d"))

{

System.out.println("That is not a valid answer. Please choose a, b, c, or d. \nAnswer: ");

answer=scan.nextLine();

}

if(obj1.getA6(answer))

{

player.addPoints(600);

System.out.println("Wow that's right! You're a genius!");

}

else

{

player.subtractPoints(600);

System.out.println("Sorry the answer was "+ obj1.getA6() +".");

}

trackQ.removeQ(obj1.getQ6());

}

/\*

\* Informs user of their present point value

\*/

System.out.println("Now "+name+" has "+ player.getPoints()+" points.");

}

/\*

\* Exits game if player has less than zero points

\*/

System.out.println("Thanks " + name + " for playing!");

}

}