M. H. SABOO SIDDIK POLYTECHNIC

JAVA MICROPROJECT

TOPIC: QUIZ GAME.

-Under the Guidance of
Munira Ma'am

Presented by:

SR.NO	ROLL NO	NAME
1.	19416	Ayesha Loladia.
2.	19417	Sanskriti Mahadik.
3.	19420	Arisha Rakhangi.
4.	20481	Mustafa Ghadai.

MAHARASHTRA STATE
BOARD OF TECHNICAL EDUCATION
CERTIFICATE

This is to certify that Mr./MS: **Loladia Ayesha**

Roll No:19417 Enrollment No:1900020252

of Fourth Semester of Diploma in **Computer Engineering** of Institute **M. H. SabooSiddik Polytechnic** (Code**: 0002**) has completed their term work satisfactorily in course **Data Communication and Computer Network** (22412) for the academic year 2020 to 2021 as prescribed in the curriculum.

Place: Mumbai Date .....

Exam. Seat No: .....

Subject Teacher. Principal. Head of the Department.

Seal of Institute

MAHARASHTRA STATE
BOARD OF TECHNICAL EDUCATION
CERTIFICATE

This is to certify that Mr./MS: Sanskriti Mahadik

Roll No: 19417 Enrollment No:1900020250

of Fourth Semester of Diploma in **Computer Engineering** of Institute **M. H. SabooSiddik Polytechnic** (Code**: 0002**) has completed their term work satisfactorily in course **Data Communication and Computer Network** (22412) for the academic year 2020 to 2021 as prescribed in the curriculum.

Place: Mumbai Date .....

Exam. Seat No: .....

Subject Teacher. Principal. Head of the Department.

Seal of Institute

MAHARASHTRA STATE
BOARD OF TECHNICAL EDUCATION
CERTIFICATE

This is to certify that Mr./MS: Arisha Rakhangi

Roll No: 19420 Enrollment No: 200002044

of Fourth Semester of Diploma in **Computer Engineering** of Institute **M. H. SabooSiddik Polytechnic** (Code**: 0002**) has completed their term work satisfactorily in course **Java Programming** (2241) for the academic year 2020 to 2021 as prescribed in the curriculum.

Place: Mumbai Date .....

Exam. Seat No: .....

Subject Teacher. Principal. Head of the Department.

Seal of Institute

MAHARASHTRA STATE
BOARD OF TECHNICAL EDUCATION
CERTIFICATE

This is to certify that Mr./MS: Mustafa Ghadia

Roll No: 20481 Enrollment No: 2000020496

of Fourth Semester of Diploma in **Computer Engineering** of Institute **M. H. SabooSiddik Polytechnic** (Code**: 0002**) has completed their term work satisfactorily in **Data Communication and Computer Network** (22412) for the academic year 2020 to 2021 as prescribed in the curriculum.

Place: Mumbai Date .....

Exam. Seat No: .....

Subject Teacher. Principal. Head of the Department.

Seal of Institute

(Name and Signature of Faculty)

ANNEXURE

Evaluation sheet for the micro project

Academic Year: 2020-2021 Name of faculty: Kousar Ma'am

Course: JPR Course code: 22412 Semester: IV

Title of the project: Quiz Game.

Cos addressed by Micro project:

A._____

B._____

Major learning outcomes achieved by students by doing the Project:
(a)Practical outcomes. _____

_____

(b)Unit outcomes in Cognitive domain _____

_____

(c)Outcomes in effective domain _____

_____

Comments/suggestions about teamwork/leadership/inter-personal communication(if any)

Roll no.	Student Name	Marks out of 6 for performance in group activity	Marks out of 4 for performance in oral/presentation	Total out of 10
19416	Loladia Ayesha			
19417	Sanskriti Mahadik			
19420	Arisha Rakhangi			
20481	Mustafa Ghadai			

➢ LITERATURE REVIEW:

CLASS

A class is a user defined blueprint or prototype from which objects are created. It represents the set of properties or methods that are common to all objects of one type. In general, class declarations can include these components, in order:

- **Modifiers:** A class can be public or has default access (Refer this for details).
- **class keyword:** class keyword is used to create a class.
- **Class name:** The name should begin with an initial letter (capitalized by convention).
- **Superclass(if any):** The name of the class's parent (superclass), if any, preceded by the keyword extends. A class can only extend (subclass) one parent.
- **Interfaces(if any):** A comma-separated list of interfaces implemented by the class, if any, preceded by the keyword implements. A class can implement more than one interface.
- **Body:** The class body surrounded by braces, { }.

- **Syntax**

```
class <class_name>{
   field;
   method;
 }
```

OBJECT

An **object** is a self-contained component which consists of methods and properties to make certain type of data useful. A class system allows the program to define a new class (derived class) in terms of an existing class (superclass) by using a technique like inheritance, overriding and augmenting.

- **Syntax**

```
ClassName ReferenceVariable = new ClassName();
```

GLOBAL VARIABLES

A **global variable** is **one** declared at the start of the code and is accessible to all parts of the program. Since **Java** is object-oriented, everything is part of a class. A variable that is specified outside the function or block of the code is known as Global Variable. It has a global reach, which means it retains its relevance over the program's lifespan. Therefore, any feature specified within the programme can access it within the programme, unless it is shadowed.

INHERITANCE:

Java inheritance refers to the ability in Java for one class to inherit from another class. In Java this is also called extending a class. One class can *extend* another class and thereby *inherit* from that class.

When one class inherits from another class in Java, the two classes take on certain roles. The class that extends (inherits from another class) is the *subclass* and the class that is being extended (the class being inherited from) is the *superclass* . In other words, the subclass extends the superclass. Or, the subclass inherits from the superclass.

Another commonly used term for inheritance is *specialization* and *generalization*. A subclass is a specialization of a superclass, and a superclass is a generalization of one or more subclasses.

- ## Terms used in Inheritance

- **Class:** A class is a group of objects which have common properties. It is a template or blueprint from which objects are created.
- **Sub Class/Child Class:** Subclass is a class which inherits the other class. It is also called a derived class, extended class, or child class.
- **Super Class/Parent Class:** Superclass is the class from where a subclass inherits the features. It is also called a base class or a parent class.
- **Reusability:** As the name specifies, reusability is a mechanism which facilitates you to reuse the fields and methods of the existing class when you create a new class. You can use the same fields and methods already defined in the previous class.

- ## The syntax of Java Inheritance

```
class Subclass-name extends Superclass-name
{
  //methods and fields
}
```

The **extends keyword** indicates that you are making a new class that derives from an existing class. The meaning of "extends" is to increase the functionality.

METHODS/ FUNCTIONS

A **method** is a block of code which only runs when it is called. You can pass data, known as parameters, into a method. Methods are used to perform certain actions, and they are also known as **functions**. Why use methods? To reuse code: define the code once, and use it many times.

- **Create a Method:** A method must be declared within a class. It is defined with the name of the method, followed by parentheses **()**. Java provides some pre-defined methods, such as System.out.println(), but you can also create your own methods to perform certain actions.
- **Call a Method:** To call a method in Java, write the method's name followed by two parentheses **()** and a semicolon**;**

Code:

```
import java.io.*;
import java.util.*;
import java.lang.*;


class global
{
   public static  int guess=0;
   public static int total=0;
}
class question extends global
{
   private String question_text;
   private String answer_1;
   private String answer_2;
   private String answer_3;
   private String answer_4;
   private int correct_answer;
   private int question_score;
   Scanner s = new Scanner(System.in);


   //setter function
   public void setvalues(String q,String a1,String a2,String a3,String a4,int ca,int pa)
   {
                        question_text = q;
                        answer_1 = a1;
                        answer_2 = a2;
                        answer_3 = a3;
                        answer_4 = a4;
```

```
                correct_answer = ca;
                question_score = pa;
        }

        //function to ask questions
        public void ask_question()
        {
                //print questions
                System.out.println(question_text);
                System.out.println("1. "+answer_1);
                System.out.println("2. "+answer_2);
                System.out.println("3. "+answer_3);
                System.out.println("4. "+answer_4);

                //display the answer
                System.out.println("What is your answer?(in number)");
                guess = s.nextInt();

        if(guess<5 && guess!=0)
        {
                //if the answer is correct
                if (guess==correct_answer)
                {
                        System.out.println("Correct!!");

                        //update the correct score
                        total = total + question_score;
                }
                        else
```

```
                {
                        System.out.println("Wrong!!!");
                        System.out.println("Correct answer is option "+correct_answer+".");
                }
        }
    else
    {
        System.out.println("Please select your answer from numbers 1 to 4 Only!!");
        ask_question();
    }
  }
}

class java_mp
{
    public static void main(String args[])
    {
        Scanner sc = new Scanner(System.in);
        String name;
        int age;

        //input details
        System.out.println("\n\n**********QUIZ**********");
        System.out.println("----->What is your name?");
        name = sc.nextLine();
        System.out.println("----->How old are you?");
        age = sc.nextInt();
        System.out.println("\n********Good luck for the quiz!!!!********");
```

```
        //objects of question class
        question obj = new question();
        question q1 = new question();
        question q2 = new question();
        question q3 = new question();
        question q4 = new question();
        question q5 = new question();
        question q6 = new question();
        question q7 = new question();
        question q8 = new question();
        question q9 = new question();
        question q10 = new question();
        //correct answer is 3 in all the questions
        //each question carries 10 marks;
        System.out.println("********There are 10 questions.***********");
        q1.setvalues("\nQ1] MS-Word is an example of ___ ","An operating system","A processing device"," Application software","An input device",3,10);
        q2.setvalues("\nQ2] Ctrl, Shift and Alt are called ..... keys. "," modifier"," function","alphanumeric"," adjustment",1,10);
        q3.setvalues("\nQ3] A computer cannot boot if it does not have the ___ "," Compiler    "," Loader"," Operating system","Assembler",3,10);
        q4.setvalues("\nQ4] ___ is the process of dividing the disk into tracks and sectors ","Tracking     ","Formatting","Crashing","Allotting",2,10);
        q5.setvalues("\nQ5] Junk e-mail is also called __ ","Spam"," Spoof","Sniffer script"," Spool",1,10);
        q6.setvalues("\nQ6] .Microsoft Office is an example of a ","Closed source software","Open source software"," Horizontal market software"," vertical market software",3,10);
        q7.setvalues("\nQ7] __are attempts by individuals to obtain confidential information from you by falsifying their identity "," Phishing trips","Computer viruses"," Phishing scams"," Spyware scams",3,10);
        q8.setvalues("\nQ8]  default, your documents print in ____ mode "," Landscape          "," Portrait","Page Setup          ","Print View",2,10);
```

```
q9.setvalues("\nQ9] Storage capacity of magnetic disk depends on "," disk pack in disk surface"," tracks per inch of surface","bits per inch of tracks","All of the above",4,10);

q10.setvalues("\nQ10] A ___ is a software program used to view Web pages. ","site","host"," link"," browser",4,10);

q1.ask_question();

q2.ask_question();

q3.ask_question();

q4.ask_question();

q5.ask_question();

q6.ask_question();

q7.ask_question();

q8.ask_question();

q9.ask_question();

q10.ask_question();


//display total score

System.out.println("");

System.out.println("          ================================");

System.out.println("          |Your Total Score = "+obj.total+" out of 100 |");


//display results


//if the player pass the quiz

if (obj.total>=70)

{

        System.out.println("          |Congrats you passed the quiz!!!!!|");

        System.out.println("          ================================");

}

else

{
```

```
            System.out.println("         |Alas! You failed the quiz.      |");
            System.out.println("         |Better luck next time.          |");
            System.out.println("          ================================");
        }}}
```

Output:

```
C:\Users\ARISHA\OneDrive\Documents\JAVA\MP>java java_mp


*****************************QUIZ*****************************
----->What is your name?
Arisha
----->How old are you?
17

********Good luck for the quiz!!!!********
********There are 10 questions.***********

Q1] MS-Word is an example of ___
1. An operating system
2. A processing device
3.  Application software
4. An input device
What is your answer?(in number)
3
Correct!!
```

```
Q2] Ctrl, Shift and Alt are called .......... keys.
1.  modifier
2.  function
3. alphanumeric
4.  adjustment
What is your answer?(in number)
1
Correct!!

Q3] A computer cannot boot if it does not have the ___
1.  Compiler
2.  Loader
3.  Operating system
4. Assembler
What is your answer?(in number)
3
Correct!!

Q4] ___ is the process of dividing the disk into tracks and sectors
1. Tracking
2. Formatting
3. Crashing
4. Allotting
What is your answer?(in number)
2
Correct!!
```

```
Q5] Junk e-mail is also called __
1. Spam
2.  Spoof
3. Sniffer script
4.  Spool
What is your answer?(in number)
1
Correct!!

Q6] .Microsoft Office is an example of a
1. Closed source software
2. Open source software
3.  Horizontal market software
4.  vertical market software
What is your answer?(in number)
3
Correct!!

Q7] __are attempts by individuals to obtain confidential information from you by falsifying their identity
1.  Phishing trips
2. Computer viruses
3.  Phishing scams
4.  Spyware scams
What is your answer?(in number)
1
Wrong!!!
Correct answer is option 3.
```

```
Q8]  default, your documents print in _____ mode
1.  Landscape
2.  Portrait
3. Page Setup
4. Print View
What is your answer?(in number)
2
Correct!!

Q9] Storage capacity of magnetic disk depends on
1.  disk pack in disk surface
2.  tracks per inch of surface
3. bits per inch of tracks
4. All of the above
What is your answer?(in number)
3
Wrong!!!
Correct answer is option 4.

Q10] A ___ is a software program used to view Web pages.
1. site
2. host
3.  link
4.  browser
What is your answer?(in number)
4
Correct!!
```

```
Q10] A ___ is a software program used to view Web pages.
1. site
2. host
3.  link
4.  browser
What is your answer?(in number)
4
Correct!!

             ================================
            |Your Total Score = 80 out of 100 |
            |Congrats you passed the quiz!!!!!|
             ================================
```

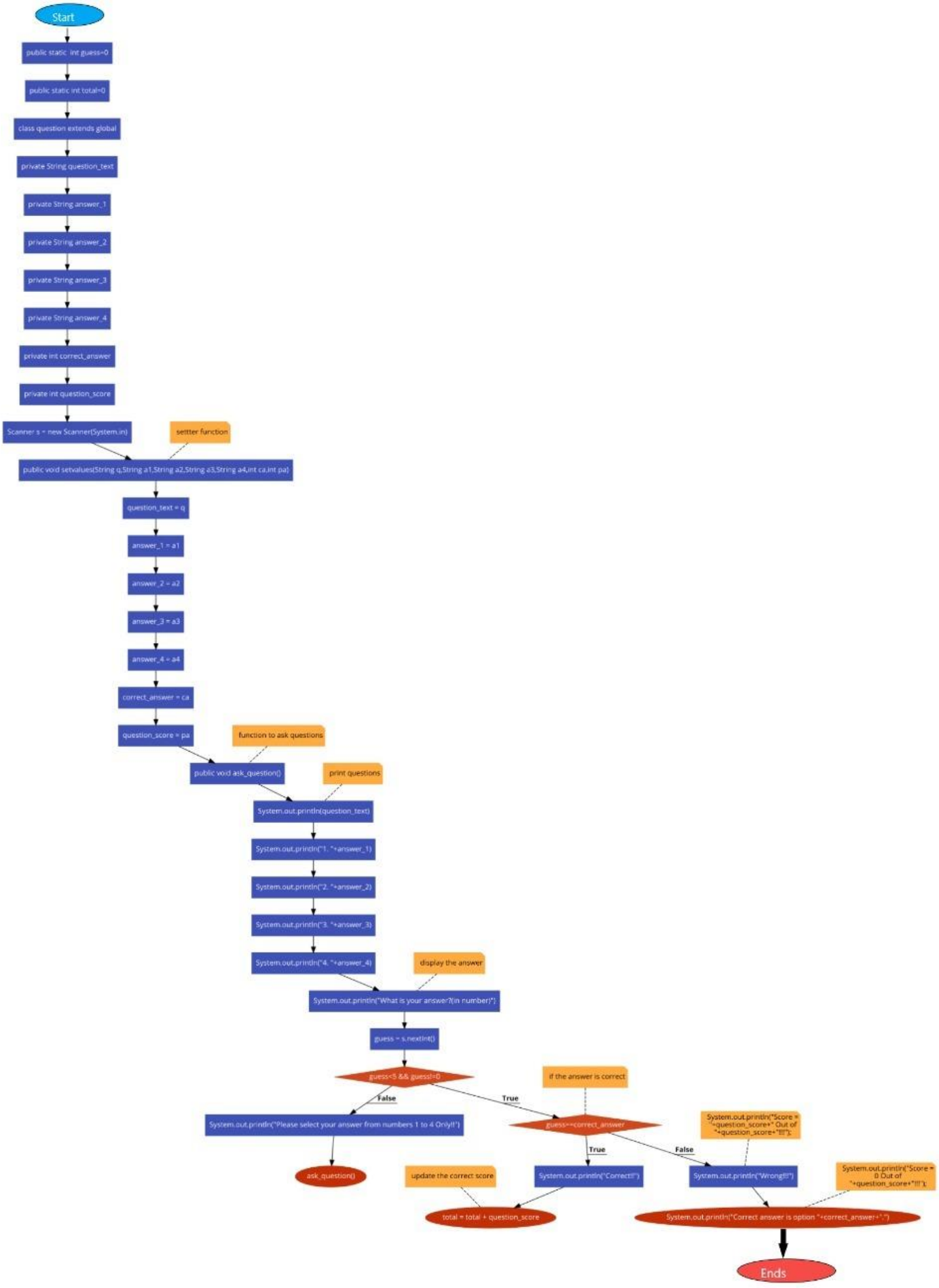
Algorithm:

- Algorithm of main class:
  1. Start
  2. Creates a **new** object of type **Scanner** from the standard input of the program (Scanner sc = new Scanner(System.in);)
  3. create a **string** using the new keyword **String name**
  4. Declare an **int** variable called **age**.
  5. Display ("QUIZ");
  6. Display ("What is your name")
  7. **name = sc.nextLine ();** **(** Scanner past the current line and returns the input that was skipped)
  8. Display ("How old are you?")
  9. **age = sc.nextInt();**
  10. Display ("Good luck for the quiz!!!! ")
  11. Creating of object of question class.
  12. Display ("There are 10 questions")
  13. Set values
  14. Call function
  15. Display Result (" Your Total Score = "+obj.total+" out of 100 ")
  16. If the player pass the quiz.(if (obj.total>=70))
      Display (" Congrats you passed the quiz!!!!! ")
  17. Else.
      Display("Alas! You failed the quiz. ")
      Display("Better luck next time. ")
  18. End.

- Algorithm for displaying Questions and Options:
  1. Start
  2. Declare private String question_text.
  3. Declare private String answer_1.
  4. Declare private String answer_2.
  5. Declare private String answer_3.
  6. Declare private String answer_4.
  7. Declare private int correct_answer .
  8. Declare private int question_score.
  9. Creates a new object of type Scanner from the standard input of the program (Scanner sc = new Scanner(System.in);)
  10. Setvalues(String q,String a1,String a2,String a3,String a4,int ca,int pa).
      a. question_text = q;
      b. answer_1 = a1;
      c. answer_2 = a2;
      d. answer_3 = a3;
      e. answer_4 = a4;
      f. correct_answer = ca;
      g. question_score = pa;

11. function to ask questions
    print all the questions.
    a. Display ("1. "+answer_1);
    b. Display ("2. "+answer_2);
    c. Display ("3. "+answer_3);
    d. Display ("4. "+answer_4);
    Display the answer
        Display(" What is your answer?(in number) ")
        scan the next token of the input . (guess = s.nextInt())
12. If n(guess<5 && guess!=0)
        a. If
        b. The answer is correct. (guess==correct_answer)
        c. Display ("Correct!!").
        d. Update the correct score. (total = total + question_score)
        e. Display ("Score = "+question_score+" Out of "+question_score+"!!!")
        f. Else
        g. Display ("Wrong!!!")
        h. Display ("Correct answer is option "+correct_answer+".")
13. Else
    Display ("Please select your answer from numbers 1 to 4 Only!!")
14. End.

Flowchart:


Start
public static int guess=0
public static int total=0
class question extends global
private String question_text
private String answer_1
private String answer_2
private String answer_3
private String answer_4
private int correct_answer
private int question_score
Scanner s = new Scanner(System.in)
setter function
public void setvalues(String q,String a1,String a2,String a3,String a4,int ca,int pa){
question_text = q
answer_1 = a1
answer_2 = a2
answer_3 = a3
answer_4 = a4
correct_answer = ca
question_score = pa
function to ask questions
public void ask_question(){
print questions
System.out.println(question_text)
System.out.println("1. "+answer_1)
System.out.println("2. "+answer_2)
System.out.println("3. "+answer_3)
System.out.println("4. "+answer_4)
display the answer
System.out.println("What is your answer?(in number)");
guess = s.nextInt()
guess<5 && guess!=0
False
True
if the answer is correct
System.out.println("Please select your answer from numbers 1 to 4 Only!!");
guess==correct_answer
System.out.println("Score = "+question_score+" Out of "+question_score+"!!!");
True
False
ask_question()
update the correct score
System.out.println("Correct!!")
System.out.println("Wrong!!!")
System.out.println("Score = 0 Out of "+question_score+"!!!");
total = total + question_score
System.out.println("Correct answer is option "+correct_answer+".")
Ends