```java
package Question01;

import java.util.Scanner;
import java.util.Stack;

public class printReverse {

        public void inputSentence(Stack<String> mystack) {
            Scanner sc=new Scanner(System.in);
            System.out.println("Enter the frst word in the sentence");
            String input = sc.nextLine();
            while(!input.endsWith(".")) {
                mystack.push(input);
                System.out.println("Enter a word by word");
                input = sc.nextLine();
            }
            mystack.push(input);
        }
        public void printSentence(Stack<String> mystack) {
            System.out.println("Reverse Sentence");
            while(!mystack.isEmpty()) {
                System.out.println(mystack.pop());
            }
        }
}
```

```java
        this.count = count;
    }

    @Override
    public void run() {
        synchronized (lock) {
            for (int x = 0; x < count; x++){
                try {
                    lock.wait();
                    for (int y = count; y >= x; y--) {
                        System.out.print(" ");
                    }
                    for (int y = 0; y <= x; y++) {
                        System.out.print("+ ");
                    }
                    System.out.println();
                    Thread.sleep(1000);
                    lock.notify();
                } catch (InterruptedException e) {
                    e.printStackTrace();
                }
            }
        }
    }
}
```

WorkSpace for WebApplications-Eclipse - Designpattern3/src/Developer.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Project Exp...

- Mock Esay Answers
  - Designpattern3
    - JRE System Libra
    - src
      - (default pack
        - Action.jav
        - Developer
        - IDE.java
        - Receiver.j
        - SaveactIo
        - SaveAllAc
    - JRE System Library
    - collections1
    - Designpattern3
    - Designpattern3/src
      - (default packag
        - Action.java
        - Developer.ja
        - IDE.java
        - Receiver.java
        - SaveAction.ja
        - SaveAllActio
    - Threads
      - (default packag
        - WrappingPap
  - Servers

SaveAllAction.java

```java
public class SaveAllAction implements Action{
    Receiver receiver;
    public SaveAllAction(Receiver receiver) {
        this.receiver = receiver;
    }
    public void Do() {
        receiver.PerformSaveAll();
    }
}
```

SaveAction.java

```java
public class SaveAction implements Action{
    Receiver receiver;
    public SaveAction(Receiver receiver) {
        this.receiver = receiver;
    }
    public void Do() {
        receiver.PerformSave();
    }

}
```

Action.java

```java
public interface Action {
    public void Do();
}
```

Receiver.java

```java
public class Receiver {
    public void PerformSave() {
        System.out.println("Saving file...");
    }
    public void PerformSaveAll() {
        System.out.println("Saving all the files...");
    }
}
```

IDE.java

```java
public class IDE {
    Action action;
    public void SetAction(Action action) {
        this.action = action;
    }
    public void ExecuteAction() {
        action.Do();
    }
}
```

Developer.java

```java
ublic class Developer {
  public static void main(String args[]) {
      IDE ide=new IDE();
      Receiver intendedreceiver = new Receiver();
      System.out.println("Pressed save button!");
      SaveAction saveaction = new SaveAction(intendedreceiver);
      ide.SetAction(saveaction);
      ide.ExecuteAction();

      System.out.println("Pressed saveAll button!");
      SaveAllAction saveallaction = new SaveAllAction(intendedrecei
      ide.SetAction(saveallaction);
      ide.ExecuteAction();
  }
```

Markers Properties Servers Data Source Explorer Snippets Console

<terminated> WrappingPaperArt [Java Application] C:\Users\hasit\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\bin\javaw.exe (Jun 12, 2021, 10:25:45 PM – 10:26:03 PM)

```
Enter Pattern 1 = 1
```

Writable | Smart Insert | 1 : 1 : 0

Type here to search | 28°C | 10:34 PM 6/12/2021

ReversePyramidPattern - NetBeans IDE 10.2

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Source History | Start Page | PyramidPattern.java | ReversePyramidPattern.java

```java
    {

        for(i=number;i>=1;i--)
        {
            for(j=number;j>i;j--)
                System.out.print(" ");
            for(k=1;k<(i*2);k++)
                System.out.print("*");
            System.out.print("\n");
        }
    }
    public static void main(String[] args) {

    ReversePyramidPattern obj=new ReversePyramidPattern();
```

reversepyramidpattern.ReversePyramidPattern > printReversePyramid > for (j = number; j > i; j--)

Output - ReversePyramidPattern (run)

```
run:
Enter number of layers :7
*************
 ***********
  *********
   *******
    *****
     ***
      *
BUILD SUCCESSFUL (total time: 2 seconds)
```

Finished building ReversePyramidPattern (run).

28:33 | INS

Work-Sheet - mock/src/Q2/ExceptionLineTooLong.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- midpasspaper
- misAssignment
  - JRE System Library [JavaSE-15]
  - src
    - OnlineAssignment
      - Enroll.java
      - IDInvalidException.java
      - Main.java
      - Specialization.java
      - Student.java
      - Weekday.java
      - Weekend.java
- mock
  - JRE System Library [JavaSE-15]
  - src
    - mockQ1
      - Demo.java
      - PrintReverse.java
    - Q2
      - ExceptionLineTooLong.java
      - Main.java

Main.java

```java
package Q2;

import java.util.Scanner;

public class Main {

    public static void main(String[] args) {
        Scanner ob = new Scanner(System.in);

        System.out.print("Enter Sentence : \n");

        String sen = ob.next();

        try {

            int x = sen.length();

            if(x > 10) {
                throw new ExceptionLineTooLong("The String is too long");
            }

        }catch(ExceptionLineTooLong e) {

            e.printStackTrace();

        }


    }

}
```

ExceptionLineTooLong.java

```java
package Q2;

public class ExceptionLineTooLong extends Exception {
    public ExceptionLineTooLong(String msg) {
        super(msg);

    }


}
```

Outline

- Q2
  - ExceptionLineTo
    - ExceptionLin

Writable | Smart Insert | 11 : 1 : 144

82°F Rain sho... 8:32 PM

Work-Sheet - mock/src/moc2/Main.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Main.java

```java
package moc2;

import java.util.Scanner;

public class Main {

    public static void main(String[] args) {
        int x;
        String p1,p2;

        Scanner ob = new Scanner(System.in);
        System.out.print("Enter pattern 1 =
        p1 = ob.next();

        System.out.print("Enter pattern 2 =
        p2 = ob.next();

        System.out.print("Enter Count = ");
        x = ob.nextInt();

        Object Lock = new Object();
        Thread1 t1 =new Thread1(Lock,p1,x);
        Thread2 t2 =new Thread2(Lock,p2,x);

        t1.start();
        t2.start();
    }
}
```

Thread1.java

```java
package moc2;

public class Thread1 extends Thread {

    Object lock;
    String pattern;
    int size;


    public Thread1(Object lock,String pattern,int size) -

        this.lock =lock;
        this.pattern = pattern;
        this.size = size;

    }

    public void run() {
        synchronized(lock) {

            for(int x = 0; x<size; x++) {
            try {
                lock.wait();
            } catch (InterruptedException e) {
                e.printStackTrace();
            }
                for(int i=0; i <= x; i++) {
                    System.out.print(" ");
                }

                for(int y=size; y > x; y--) {

                    System.out.print(pattern + " ");
                }

                System.out.println();
                lock.notify();
            }
        }
    }

}
```

Thread2.java

```java
package moc2;

public class Thread2 extends Thread {

    Object lock;
    String pattern;
    int size;


    public Thread2(Object lock,String pattern,int size) {

        this.lock =lock;
        this.pattern = pattern;
        this.size = size;

    }

    public void run() {
        synchronized(lock){

            for(int x = 0; x<size; x++) {
                lock.notify();

                for(int i=0; i <= x; i++) {
                    System.out.print(" ");
                }

                for(int y=size; y > x; y--) {

                    System.out.print(pattern + " ");
                }
                System.out.println();
                try {
                    lock.wait();
                } catch (InterruptedException e) {
                    e.printStackTrace();
                }
            }
        }
    }

}
```

<terminated> Main (2) [Java A

```
Enter pattern 1 = +
Enter pattern 2 = -
Enter Count = 5
- - - - -
+ + + + +
- - - -
+ + + +
- - -
+ + +
- -
+ +
-
+
```

80°F Light rain 11:29 PM

Work-Sheet - mock/src/moc2/Main.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Main.java

```java
package moc2;

import java.util.Scanner;

public class Main {

    public static void main(String[] args) {
        int x;
        String p1,p2;

        Scanner ob = new Scanner(System.in);
        System.out.print("Enter pattern 1 = ");
        p1 = ob.next();

        System.out.print("Enter pattern 2 = ");
        p2 = ob.next();

        System.out.print("Enter Count = ");
        x = ob.nextInt();

        Object Lock = new Object();
        Thread1 t1 =new Thread1(Lock,p1,x);
        Thread2 t2 =new Thread2(Lock,p2,x);

        t1.start();
        t2.start();
    }
}
```

Thread1.java

```java
package moc2;

public class Thread1 extends Thread {

    Object lock;
    String pattern;
    int size;


    public Thread1(Object lock,String pattern,int size) {

        this.lock =lock;
        this.pattern = pattern;
        this.size = size;

    }

    public void run() {
        synchronized(lock) {

            for(int x = 0; x<size; x++) {
            try {
                lock.wait();
            } catch (InterruptedException e) {
                e.printStackTrace();
            }

                for(int y=size; y >= x; y--) {
                    System.out.print(" ");
                }

                for(int i=0; i <= x; i++) {
                    System.out.print(pattern + " ");
                }
                System.out.println();
                lock.notify();
            }
        }
    }
}
```

Thread2.java

```java
package moc2;

public class Thread2 extends Thread {

    Object lock;
    String pattern;
    int size;


    public Thread2(Object lock,String pattern,int size) {

        this.lock =lock;
        this.pattern = pattern;
        this.size = size;

    }

    public void run() {
        synchronized(lock){

            for(int x = 0; x<size; x++) {
                lock.notify();
                for(int y=size; y >= x; y--) {
                    System.out.print(" ");
                }

                for(int i=0; i <= x; i++) {
                    System.out.print(pattern + " ");
                }
                System.out.println();
                try {
                    lock.wait();
                } catch (InterruptedException e) {
                    e.printStackTrace();
                }
            }
        }
    }
}
```

```
<terminated> Main (2)
Enter pattern 1
Enter pattern 2
Enter Count = 5
    -
    +
  - -
  + +
- - -
+ + +
- - - -
+ + + +
- - - - -
+ + + + +
```

Work-Sheet - mock/src/mockQ1/Demo.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- midpasspaper
- misAssignment
  - JRE System Library [JavaSE-15]
  - src
    - OnlineAssignment
      - Enroll.java
      - IDInvalidException.java
      - Main.java
      - Specialization.java
      - Student.java
      - Weekday.java
      - Weekend.java
- mock
  - JRE System Library [JavaSE-15]
  - src
    - moc2
      - Main.java
      - Thread1.java
      - Thread2.java
    - mockQ1
      - Demo.java
      - PrintReverse.java
    - Q2
      - ExceptionLineTooLong.java
      - Main.java

Demo.java

```java
package mockQ1;

import java.util.Stack;

public class Demo {

    public static void main(String[] args) {

        Stack<Integer> theStack = new Stack<>();
        PrintReverse ob = new PrintReverse();
        ob.inputDigit(theStack);
        ob.printDigit(theStack);
    }

}
```

PrintReverse.java

```java
package mockQ1;

import java.util.Scanner;


public class PrintReverse {

    public void inputDigit(Stack<Integer> xstack) {
        Scanner ob = new Scanner(System.in);
        System.out.println("Enter number :");
        int input = ob.nextInt();
        while (input > 0) {
            xstack.push( input % 10 );
            input = input / 10;
        }
    }

    public void printDigit(Stack<Integer> xstack) {
        System.out.println("digt afer the brake");

        while (!xstack.isEmpty()) {
            System.out.println(xstack.pop());
        }
    }
}
```

```
<terminated> Demo [Java Application] C:
Enter number :
5869
digt afer the brake
5
8
6
9
```

Work-Sheet - mock/src/q6/Thread1.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Thread2.java

```java
package q6;

public class Thread2 extends Thread{
    Object lock;
    int size;

    public Thread2(Object lock, int size) {
        this.lock = lock;
        this.size = size;
    }

    public void run() {
        synchronized(lock) {

        for (int i = 1; i <= size; i++) {

            for (int j = 1; j <= i; j++) {
                System.out.print(" ");
            }

            for (int j = size; j >= i; j--) {

                System.out.print("- ");
            }
            System.out.println();
        }

        }
    }
}
```

Thread1.java

```java
package q6;

public class Thread1 extends Thread{
    Object lock;
    int size;

    public Thread1(Object lock, int size) {
        this.lock = lock;
        this.size = size;
    }

    public void run() {
        synchronized(lock) {

        for (int i = 1; i <= size; i++) {
            for (int j = size; j >= i; j--) {
                System.out.print(" ");
            }
            for (int j = 1; j <= i; j++) {
                System.out.print("* ");
            }
            System.out.println();
        }

        }
    }
}
```

Main.java

```java
package q6;

import java.util.Scanner;

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

    System.out.println("Enter trangle size = ");
    int x = sc.nextInt();

    Object lock = new Object();

    Thread1 t1 = new Thread1(lock,x);
    Thread2 t2 = new Thread2(lock,x);


    t1.start();
    t2.start();

    }
}
```

```
<terminated> Main (3) [Java Application] C
Enter trangle size =
5
    *
   * *
  * * *
 * * * *
* * * * *
- - - - -
 - - - -
  - - -
   - -
    -
```

82°F Light rain 1:01 AM

Question 1

Not yet answered

Marked out of 1.00

Flag question

```java
public class StringDemo {
  public static void main(String args[]){
    StringBuffer c = new StringBuffer("Hello");
    c.delete(0,2);
    System.out.println(c);
  }
}
```

What is the output of the above program?

Select one:

- a. lo
- b. He
- c. None of the answers
- d. Hel
- e. llo

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Given the following class definition:

```
1. public abstract class MyWindowCloser {
2.     protected abstract void closeWindow(String id);
3. }
```

which of the following methods could appear in a child class of MyWindowCloser ?

Select one or more:

- void closeWindow(String id)
- protected void closeWindow(String id)
- private void closeWindow()
- protected int closeWindow(String id)
- public int closeWindow(String x)

Given the following class definitions

```
1   public class Parent {
2           protected void sayHi() {
3               System.out.print("Hi");
4           }
5   }
6
7   class Child extends Parent {
8           public void sayHi() {
9               System.out.print("Hello");
10      }
11  }
```

what is output of the result of the following statements?

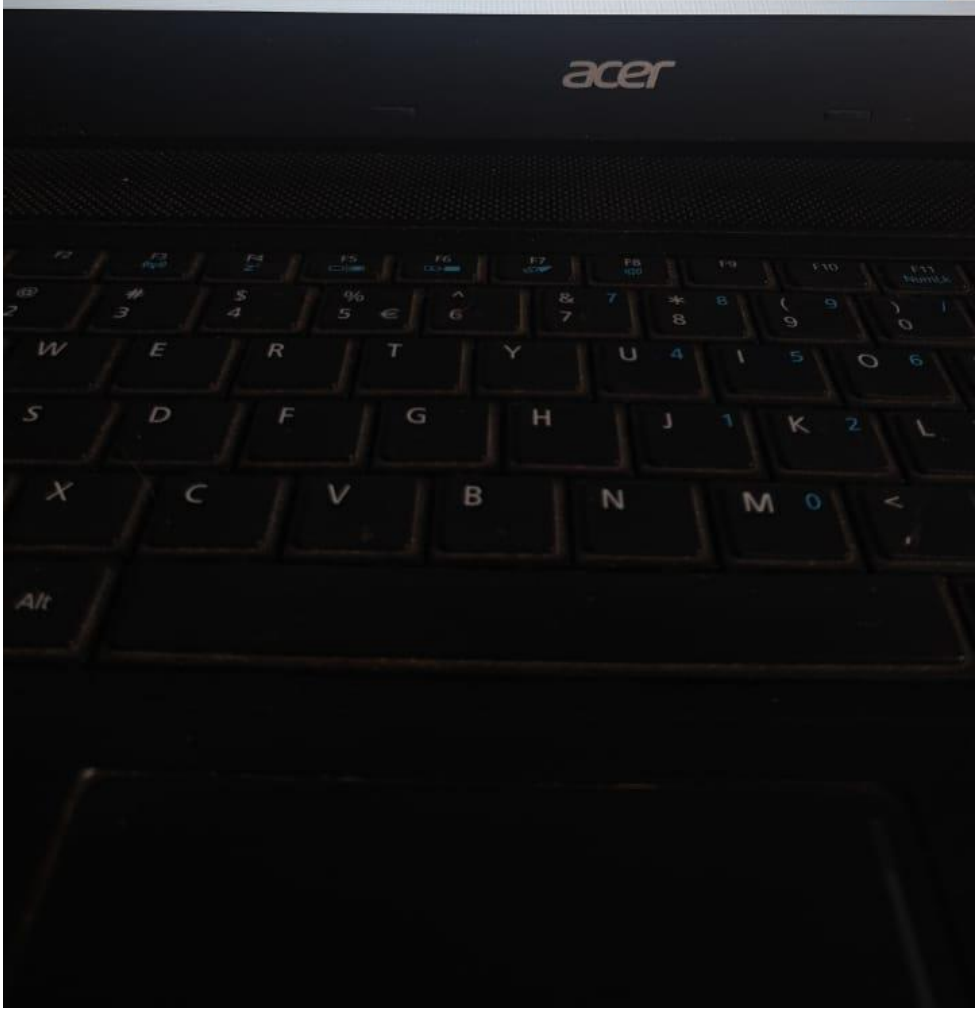
Parent p = new Child();

p.sayHi();

Select one or more:

- [ ] Hi
- [ ] Line 16 causes an exception to be thrown.
- [ ] Compiler error on line 8
- [ ] Compiler error on line 15
- [ ] Hello

Next page



1
answered
out of
question

what is the output of following program?

```
public class Test {

    public static void main(String[] args) {
        int number;
        String str;
        try {
            str = "5";
            number = Integer.parseInt(str.substring(5));
            System.out.println("A");
        } catch (NumberFormatException e) {
            System.out.println("B");
        } catch (IllegalArgumentException e) {
            System.out.println("C");
        } catch (Exception e) {
            System.out.println("E");
        }
        finally {
            System.out.println("F");
        }
        System.out.println("G");
    }

}
```

Finish
Time le
MCQ S
1 8 15
ESSAY S
16 1
FEEDBA
19

Moodle

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Question 1
Not yet answered
Marked out of 1.00
Flag question

What is the result of the following program?

```
public class Question03 {
    public static void doSomething(int i){
        System.out.println("method one");
    }

    public static void doSomething(Byte b){
        System.out.println("method two");
    }

    public static void main(String[] args) {
        byte b = -12;
        doSomething(b);
    }
}
```

Select one:

- method one
- An exception will be thrown
- method two
- method one method two
- Compiler error on line

Next page

Quiz navigation

Finish attempt ...

Time left 1:59:50

MCQ SECTION
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESSAY SECTION
16 17 18

FEEDBACK QUESTION
19

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Sri Lanka Institute of Information Technology

Question **4**

Not yet answered

Marked out of 1.00

Flag question

What is the output of the following program?

```
Class myclass {
        int t = 40 ;
        myclass()
        {
                t = 80 ;
        }
    }
Class Main{
        Public static void main( String args[] )
        {
                myclass m1 = new myclass();
                system.out.println(m1.myclass);
        }
    }
```

Select one:

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Which of these class is used to create an object whose character sequence is changeable?

Select one:

- a. Both of the mentioned
- b. None of the mentioned
- c. StringBuffer
- d. String

Next page

Quiz navigat

Finish attempt ...

Time left 1:48:47

MCQ SECTION

ESSAY SECTION

FEEDBACK QUESTIO

```
class Main{
    Public static void main( String args[] )
    {
        myclass m1 = new myclass();
        system.out.println(m1.myclass);
    }
}
```

Select one:

- a. Compilation error since we can not invoke the myclass()
- b. Compilation error since class " myclass" dose not have a getter
- c. Compilation error since myclass() dose not have a return type
- d. Compilation error since class " myclass" dose not have a setter
- e. Compilation error since myclass() dose not have a access specifier

Moodle

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Question 2

Not yet answered

Marked out of 1.00

Flag question

The output of the following fraction of code is

```
public class SpaceX {
  public static void main(String args[]){
    String s1 = new String("Falcon 9");
    String s2 = new String("Falcon 9");
    System.out.println(s1 == s2);
  }
}
```

Select one:

- a. false
- b. Falcon 9Falcon 9
- c. Falcon 9
- d. Throws an Exception
- e. true

Next page

Quiz navigation

Finish attempt ...

Time left 1:54:15

MCQ SECTION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

Moodle

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Question 3

Not yet answered

Marked out of 1.00

Flag question

What is true about java constants in coding?

Select one or more:

- When declaring, all the letters in the constants should be upper case
- Constants can remove magic numbers in the code
- A global constant should be default and static
- Constant will be inherited to sub classes
- You cannot change the value in the constant

Next page

Quiz navigation

Finish attempt ...

Time left 1:53:38

MCQ SECTION

1 2 3 4 5 6 9 10 11 12 13 14

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

What is the **correct generic map display method** which satisfy below maps? From the given answers select the correct code Snippet.

```
LinkedHashMap<String, Integer> oopMarksMap = new LinkedHashMap<String, Integer>();
oopMarksMap.put("IT1011233", 80);
oopMarksMap.put("IT1011244", 85);
oopMarksMap.put("IT1011255", 75);
oopMarksMap.put("IT1011266", 60);
oopMarksMap.put("IT1011277", 55);

LinkedHashMap<String, Integer> seMarksMap = new LinkedHashMap<String, Integer>();
seMarksMap.put("IT1011233", 80);
seMarksMap.put("IT1011244", 85);
seMarksMap.put("IT1011255", 75);
seMarksMap.put("IT1011266", 60);
seMarksMap.put("IT1011277", 55);

LinkedHashMap<String, Integer> dbmsMarksMap = new LinkedHashMap<String, Integer>();
dbmsMarksMap.put("IT1011233", 80);
dbmsMarksMap.put("IT1011244", 85);
dbmsMarksMap.put("IT1011255", 75);
dbmsMarksMap.put("IT1011266", 60);
dbmsMarksMap.put("IT1011277", 55);

Map<String, LinkedHashMap<String, Integer>> subjectMap = new LinkedHashMap<String, LinkedHashMap<String, Integer>>();
subjectMap.put("OOP", oopMarksMap);
subjectMap.put("SE", seMarksMap);
subjectMap.put("DBMS", dbmsMarksMap);

genericMapDisplay(subjectMap);
```

What is the **correct generic map display method** which satisfy below maps? From the given answers select the correct code Snippet.

```
LinkedHashMap<String, Integer> oopMarksMap = new LinkedHashMap<String, Integer>();
oopMarksMap.put("IT1011233", 80);
oopMarksMap.put("IT1011244", 85);
oopMarksMap.put("IT1011255", 75);
oopMarksMap.put("IT1011266", 65);
oopMarksMap.put("IT1011277", 55);

LinkedHashMap<String, Integer> seMarksMap = new LinkedHashMap<String, Integer>();
seMarksMap.put("IT1011233", 80);
seMarksMap.put("IT1011244", 85);
seMarksMap.put("IT1011255", 75);
seMarksMap.put("IT1011266", 65);
seMarksMap.put("IT1011277", 55);

LinkedHashMap<String, Integer> dbmsMarksMap = new LinkedHashMap<String, Integer>();
dbmsMarksMap.put("IT1011233", 80);
dbmsMarksMap.put("IT1011244", 85);
dbmsMarksMap.put("IT1011255", 75);
dbmsMarksMap.put("IT1011266", 65);
dbmsMarksMap.put("IT1011277", 55);

Map<String, LinkedHashMap<String, Integer>> subjectsMap = new LinkedHashMap<String, LinkedHashMap<String, Integer>>();
subjectsMap.put("OOP", oopMarksMap);
subjectsMap.put("SE", seMarksMap);
subjectsMap.put("DBMS", dbmsMarksMap);

genericMapDisplay(subjectsMap);
```


```
seMarksMap.put("IT1011277", 55);

LinkedHashMap<String, Integer> dbmsMarksMap = new LinkedHashMap<String, Integer>();
dbmsMarksMap.put("IT1011233", 80);
dbmsMarksMap.put("IT1011244", 85);
dbmsMarksMap.put("IT1011255", 75);
dbmsMarksMap.put("IT1011266", 65);
dbmsMarksMap.put("IT1011277", 55);

Map<String, LinkedHashMap<String, Integer>> subjectsMap = new LinkedHashMap<String, LinkedHashMap<String, Integer>>
subjectsMap.put("OOP", oopMarksMap);
subjectsMap.put("SE", seMarksMap);
subjectsMap.put("DBMS", dbmsMarksMap);

genericMapDisplay(subjectsMap);
```


Select one:

a.
```
public static <K,V> void genericMapDisplay(Map<K, LinkedHashMap<K, V>> subjectsMap){
        for (Map.Entry<K, LinkedHashMap<K, V>> subjects : subjectsMap.entrySet()) {
            System.out.println(subjects.getKey());
            for (Map.Entry<K, V> student : subjects.getValue().entrySet()) {
                System.out.println(student.getKey() + " " + student.getValue());
            }
        }
}
```

```
21            System.out.println("G")
22        }
23
24    }
```

Select one:

- B
  F
- E
  F
  G
- C
  F
- B
  F
  G
- E
  F

on 4

t answered

d out of

g question

what is the output of following program?

```
public class Test {

    public static void main(String[] args) {
        int number;
        String str;
        try {
            str = "5";
            number = Integer.parseInt(str.substring(5));
            System.out.println("A");
        } catch (NumberFormatException e) {
            System.out.println("B");
        } catch (IllegalArgumentException e) {
            System.out.println("C");
        } catch (Exception e) {
            System.out.println("E");
        }
        finally {
            System.out.println("F");
        }
        System.out.println("G");
    }

```

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Question 2

Not yet answered

Marked out of 1.00

Flag question

Which of the following statements are true?

Select one or more:

- [ ] All string literals are automatically instantiated into a String object.
- [x] In a multithreaded environment, use StringBuilder instead of StringBuffer .
- [ ] A StringBuffer object can increase its length when appending characters.
- [ ] A StringBuilder object is immutable.
- [x] The StringBuilder and StringBuffer classes define the exact same public methods

Question **3**

Not yet answered

Marked out of 1.00

Flag question

What is the output of this

```
import java.util.*;
public class genericstack <T>   {
   Stack <T> stk = new Stack <T>();
   public void push(T obj) {
            stk.push(obj);
  }
  public T pop()        {
      T obj = stk.pop();
      return obj;
  }
}

class Output{
    public static void main(String args[]){
        genericstack <String> gs = new genericstack<String>();
        gs.push("Hello");
        System.out.println(gs.pop());
    }
}
```

Select one:

- a. Compilation Error
- b. Hello
- c. H
- d. null
- e. Runtime Error

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Question 4

Not yet answered

Marked out of 1.00

Flag question

What is the output of the following code?

```
public class Test {

    public static void main(String[] args) {
        int opt = 5;
        switch (opt){
        case 1:
            System.out.println("*****");
        case 3:
            System.out.println("$$$$$");
            break;
        case 5:
            System.out.println("#####");
        default:
            System.out.println("&&&&&");

        }
    }

}
```

#####

&&&&&

Select one:

- &&&&&
- Run time exception
- Compilation error
- #####

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Which of the following is wrapper class for data type char?

Select one:

- a. Letter
- b. Char
- c. Float
- d. String
- e. Character

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Question 4

Not yet answered

Marked out of 1.00

Flag question

Imagine there are three classes as "Person", "Employee" and "Teacher". All "Teacher" objects are both "Employees" and "Persons" too. You are supposed to implement this scenario using java language and Objected oriented concepts. Already the "Teacher" is inherited from "Employee" class using extends.

The Object Oriented Concept when a class has two or more extending classes is inheritance .

"Teacher" can be implemented by extending "Person" class too using JAVA.

Hence ,

Person should be a class and Employee should be a class

Next page

Quiz navigation

Finish attempt ...

Time left 1:49:26

MCQ SECTION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The program generates an exception at runtime
- The output is always B
- The output varies and is either AB or BA
- The output is always AB
- The program does not compile

What is the output of the following code

```
public class Test {

    public static void main(String[] args) {
        int height = 5;
        int base = 3;
        double area = 1/2 * height * base;

        System.out.println("Area is : " + area);
    }

}
```

Select one:

- Area is : 7.0
- Area is : 0.0
- Area is : 7.5
- Area is : 8.0
- Area is : 0

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ed out of
g question

What is the output of this program?

```
class output {
  public static void main(String args[])
  {
    String c = ("Hello, I love java programming").substring(3, 9);
    System.out.println(Character.isLowerCase(c.charAt(2)));
  }
}
```

Select one:

- a. true
- b. false
- c. Compilation Error
- d. 1
- e. A StringOutOfBoundException will be thrown

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Select the TRUE sentence(s) from the below

Select one or more:

- [ ] this() calls the default constructor of the current instance
- [ ] Constructor can take only one argument
- [ ] super.super() calls the default constructor of the parent class
- [ ] Constructors are declared as void methods as those do not return any value
- [ ] this and this() are used for different purposes in Java

Next pag

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Flag question

Imagine there are three classes as "Person", "Employee" and "Teacher". All "Teacher" objects are both "Employees" and "Persons" too. You are supposed to implement this scenario using Java language and Objected oriented concepts. Already the "Teacher" is inherited from "Employee" class using extends.

The Object Oriented Concept when a class has two or more extending classes is interface.

"Teacher" can be implemented by extending "Person" class too using JAVA.

Hence ,

Person should be a class and Employee should be an interface

Next page

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Finish attempt

Time left 1:48:1

MCQ SECTION

1 2 3 9 10 11

ESSAY SECTION

16 17 18

FEEDBACK QUES

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Refer the code snippet below:

```
public class Test {
 public static void main(String [] args) {
        int I = 7 , j = 7;
        double d = 6.99;
        float f = 6.99f;
        boolean x = true, y = false;
        String s1= "Java is Interesting";
        String s2 = new String("Java is Interesting");
        }
 }
```

Write the output of the below statement.

System.out.println(s1!=s2);

Answer:

What is the output of the following code

```
public class Test {

    public static void main(String[] args) {
        int height = 5;
        int base = 3;
        double area = 1/2 * height * base;

        System.out.println("Area is : " + area);
    }

}
```

Select one:

- Area is : 7.0
- Area is : 0.0
- Area is : 7.5
- Area is : 8.0
- Area is : 0

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In which of these packages String and StringBuffer classes are implemented?

Select one:

- a. java.lang
- b. None of the given
- c. java.String
- d. java.awt
- e. java.util

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```
public class StringDemo {
  public static void main(String args[]){
    String str = "I" + "like" + "Java";
    System.out.println(str);
  }
}
```

What is the output of the above program?

Select one:

- a. I Like Java
- b. IlikeJava
- c. I like Java
- d. I Like
- e. None of the answers

Question 1

Not yet answered

Marked out of 1.00

Flag question

What is the output of the following program?

```
public class Cat {
    public String name;

    public void parseName() {
        System.out.print("1");
        try {
            System.out.print("2");
            int x = Integer.parseInt(name);
            System.out.print("3");
        }catch(NullPointerException e) {
            System.out.print("4");
        }
        System.out.print("5");
    }
    public static void main(String [] args) {
        Cat felix = new Cat();
        felix.name = "Felix";
        felix.parseName();
        System.out.print("6");
    }
}
```

Select one:

- a. 12456
- b. 1256 , followed by a stack trace for a NumberFormatException
- c. 1256
- d. 12 , followed by a stack trace for a NumberFormatException
- e. 124 , followed by a stack trace for a NumberFormatException

Quiz navigation

Finish attempt ...

Time left 1:59:16

MCQ SECTION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

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Question 6

Not yet answered

Marked out of 1.00

Flag question

Which of the following exception(s) is(are) will generate a compilation error if not handled?

Select one or more:

- [ ] ArrayIndexOutOfBoundsException
- [x] IOException
- [ ] NumberFormatException
- [ ] InterruptedException
- [x] ClassNotFoundException

Next

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Question 7

Not yet answered

Marked out of 1.00

Flag question

Which of the following statements are true?

Select one or more:

- [x] All string literals are automatically instantiated into a String object.
- [ ] A StringBuffer object can increase its length when appending characters.
- [ ] In a multithreaded environment, use StringBuilder instead of StringBuffer .
- [ ] The StringBuilder and StringBuffer classes define the exact same public methods.
- [ ] A StringBuilder object is immutable.

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Singleton pattern prevents one from creating more than one instance of a variable.

Next page

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What is the output of the following code?

```
class ABC {
    static int a = 5;
    static {
        a = a*3;
    }
}

public class Test {

    public static void main(String[] args) {
        System.out.println(ABC.a);
    }
}
```

Select one:

- Runtime error
- Compilation error
- 5
- None of the given choices
- 15

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Which of the following statements are valid?

Select one or more:

- [x] a. HashSet < Number > hs = new HashSet < Integer > ();
- [x] b. HashSet < Number > hs = new HashSet <>();
- [ ] c. HashSet < Number,Number > hs = new HashSet <Integer,String>();
- [x] d. List < String > list = new Vector < String > ();
- [ ] e. Map < String, ? extends Number > hm = new HashMap < String, Integer > ();

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Question 10

Not yet answered

Marked out of 1.00

Flag question

What is the result of the [redacted] ogram?

```
1.  public abstract class Book {
2.      public final void read() {
3.          System.out.println("Reading a Book");
4.      }
5.
6.      public static void main(String [] args) {
7.          Book book = new NonFictionBook();
8.          book.read();
9.      }
10. }
11.
12. class NonFictionBook extends Book {
13.     public void read() {
14.         System.out.println("Reading a NonFictionBook");
15.     }
16. }
```

- Compile error on line 8
- Reading a Book
- Reading a NonFictionBook
- Compile error on line 7

Select one:

- Compile error on line 13

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Flag question

```
public class Test {
 public static void main(String [] args) {
        int I = 7 , j = 7;
        double d = 6.99;
        float f = 6.99f;
        boolean x = true, y = false;
        String s1= "Java is Interesting";
        String s2 = new String("Java is Intere
        }
}
```

Write the output of the below statement.

System.out.println(s1!=s2);

Answer: true

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Flag question

What is / are the error /s in the following program?

```
class Main {

    public static void main(String[] args) {
        S2 s2 = new S2();
        System.out.println(s2.add(2, 3));
        System.out.println(s2.add("abc", "def"));
        S1 s1 = new S1();
        System.out.println(s1.add(3, 5));
        System.out.println(s1.add("my ", "pet"));
    }
}

abstract class S1 {

    abstract int add(int a, int b);

    public String add(String a, String b) {
        return a + "," + b;
    }
}

class S2 extends S1 {

    public int add(int a, int b) {
        return a + b;
    }
}
```

Select one or more:

- Defining and implementing the non abstract method String add(String a, String b) in class S1 is wrong
- S1 should not be defined as an abstract class as String add(String a, String b) has an implementation
- Cannot use s2.add("abc", "def") as that method is not implemented in class S2
- S2 s2 = new S2(); is wrong as we cannot create an object from class S2
- S1 s1 = new S1(); is wrong as we cannot create an object from Class S1

Given the following class definition:

```
1. public abstract class MyWindowCloser {
2.      protected abstract void closeWindow(String id);
3. }
```

which of the following methods could appear in a child class of MyWindowCloser ?

Select one or more:

- [ ] public int closeWindow(String x)
- [ ] void closeWindow(String id)
- [ ] private void closeWindow()
- [ ] protected void closeWindow(String id)
- [ ] protected int closeWindow(String id)

Next page

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What is the most suitable design pattern which describes the following statement?

Encapsulate a request as an object, thereby letting you parametrize clients with different requests, queue or log requests, and support the undoable operation

Select one:

- Adapter pattern
- Bridge pattern
- Template pattern
- Command pattern
- Strategy pattern

Next page

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g question

Which of the following statements are true?

Select one or more:

- [x] All string literals are automatically instantiated into a String object.
- [x] A StringBuffer object can increase its length when appending characters.
- [ ] A StringBuilder object is immutable.
- [ ] In a multithreaded environment, use StringBuilder instead of StringBuffer .
- [ ] The StringBuilder and StringBuffer classes define the exact same public methods.

```
public class Test {

    public static void main(String[] args) {
        int number;
        String str;
        try {
            str = "5";
            number = Integer.parseInt(str.substring(5));
            System.out.println("A");
        } catch (NumberFormatException e) {
            System.out.println("B");
        } catch (IllegalArgumentException e) {
            System.out.println("C");
        } catch (Exception e) {
            System.out.println("E");
        }
        finally {
            System.out.println("F");
        }
        System.out.println("G");
    }

}
```

What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 System.out.print(x++);
4 if(b = true) {
5     System.out.print(x);
6 }
7 else {
8     System.out.print(y);
9 }
```

Select one or more:

- 5
- 6
- Compiler error on line 5.
- Compiler error on line 6.
- 10

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```
public class StringDemo {
  public static void main(String args[]){
    StringBuffer c = new StringBuffer("Hello");
    c.delete(0,2);
    System.out.println(c);
  }
}
```

What is the output of the above program?

Select one:

- a. lo
- b. He
- c. llo
- d. None of the answers
- e. Hel

Select one:

- E
  F
- B
  F
  G
- C
  F
- E
  F
  G
- B
  F

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Question **11**

Not yet answered

Marked out of 1.00

Flag question

What will be output?

```
String S1 = "S1 ="+ "123"+"456";
String S2 = "S2 ="+ (123+456);
System.out.println( S1 + ", " +S2);
```

Select one:

- a. S1=123456, S2=123456
- b. S1=123456, S2=579
- c. Compilation Error
- d. None of the given options
- e. S1=579, S2=579

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What is the output of this program?

```
import java.util.*;
public class genericstack <T>    {
   Stack <T> stk = new Stack <T>();
   public void push(T obj) {
            stk.push(obj);
  }
  public T pop()          {
      T obj = stk.pop();
      return obj;
  }
}

class Output{
    public static void main(String args[]){
        genericstack <String> gs = new genericstack<String>();
        gs.push("Hello");
        System.out.println(gs.pop());
    }
}
```

Select one:

- a. Runtime Error
- b. Hello
- c. H
- d. null
- e. Compilation Error

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Question **7**

Not yet answered

Marked out of 1.00

Flag question

Refer the code snippet below:

```
public class Test {
 public static void main(String [] args) {
        int I = 7 , j = 7;
        double d = 6.99;
        float f = 6.99f;
        boolean x = true, y = false;
        String s1= "Java is Interesting";
        String s2 = new String("Java is Interesting");
        }
}
```

Write the output of the below statement.

System.out.println(s1!=s2);

Answer:

Quiz

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Time left

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Given the following Vehicle and Car class definitions:

```
1.  package my.vehicles;
2.
3.  public class Vehicle {
4.      public String make;
5.      protected String model;
6.      private int year;
7.      int mileage;
8.  }
```

```
1.  package my.vehicles.cars;
2.
3.  import my.vehicles.*;
4.
5.  public class Car extends Vehicle {
6.      public Car() {
7.
8.      }
9.  }
```

which of the following statements can appear on line 7 so that the Car class compiles successfully?

Select one or more:

mileage = 15285;

Question **2**

Not yet answered

Marked out of 1.00

Flag question

What is the result of the following program?

```
public class Question03 {
    public static void doSomething(int i){
        System.out.println("method one");
    }

    public static void doSomething(Byte b){
        System.out.println("method two");
    }

    public static void main(String[] args) {
        byte b = -12;
        doSomething(b);
    }
}
```

Select one:

- method two
- Compiler error on line
- method one
- method one method two
- An exception will be thrown

Question **7**

Not yet answered

Marked out of 1.00

Flag question

Given the following Vehicle and Car class definitions:

```
1.  package my.vehicles;
2.
3.  public class Vehicle {
4.      public String make;
5.      protected String model;
6.      private int year;
7.      int mileage;
8.  }
```

```
1.  package my.vehicles.cars;
2.
3.  import my.vehicles.*;
4.
5.  public class Car extends Vehicle {
6.      public Car() {
7.
8.      }
9.  }
```

which of the following statements can appear on line 7 so that the Car class compiles successfully?

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Time left 1:

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MCQ SECT

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ESSAY SECT

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FEEDBACK C

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```
4.
5. public class Car extends Vehicle {
6.     public Car() {
7.
8.     }
9. }
```

which of the following statements can appear on line 7 so that the Car class compiles successfully?

Select one or more:

- [ ] mileage = 15285;
- [ ] year = 2009;
- [ ] model = " Pilot " ;
- [ ] None of the mention
- [ ] make = " Honda " ;

Next page

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Question 7

Not yet answered

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Flag question

Given the following class definitions

```
1  public class Parent {
2          protected void sayHi() {
3              System.out.print("Hi");
4          }
5  }
6
7  class Child extends Parent {
8          public void sayHi() {
9              System.out.print("Hello");
10     }
11 }
```

what is output of the result of the following statements?

Parent p = new Child();

p.sayHi();

Select one or more:

- [ ] Hello
- [ ] Compiler error on line 15
- [ ] Line 16 causes an exception to be thrown.
- [ ] Compiler error on line 8
- [ ] Hi

Next page

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```
5
6       static{
7           no = no + add(no);
8           System.out.println(no);
9       }
10
11      static int add(int no){
12          return no;
13      }
14
15      {
16          System.out.println(no);
17      }
18
19      public Ex01() {
20          System.out.println("Construcor");
21      }
22
23      public static void main(String[] args) {
24          Ex01 ex01 = new Ex01();
25      }
26  }
```

Select one:

- Compile Error
- 20
  20
  Constructor
- Constructor
  10
  10
- No output
- Runtime Error

Moodle

Not yet answered

Marked out of 1.00

Flag question

```
public class Cat {
    public String name;

    public void parseName() {
        System.out.print("1");
        try {
            System.out.print("2");
            int x = Integer.parseInt(name);
            System.out.print("3");
        }catch(NullPointerException e) {
            System.out.print("4");
        }
        System.out.print("5");
    }
    public static void main(String [] args) {
        Cat felix = new Cat();
        felix.name = "Felix";
        felix.parseName();
        System.out.print("6");
    }
}
```

Select one:

- a. 124 , followed by a stack trace for a NumberFormatException
- b. 1256
- c. 12456
- d. 12 , followed by a stack trace for a NumberFormatException
- e. 1256 , followed by a stack trace for a NumberFormatException

Finish attempt ...

Time left 1:43:52

MCQ SECTION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

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Flag question

Which of the following are legal lines of Java code?

Select one or more:

- byte d = (Integer)210;
- int w = (int)210;
- byte c = (int)210;
- int a = (Byte)210;
- byte b = (byte)210;

ASUS VivoBook

What is / are the error /s in the following program?

```
class Main {

    public static void main(String[] args) {
        S2 s2 = new S2();
        System.out.println(s2.add(2, 3));
        System.out.println(s2.add("abc", "def"));
        S1 s1 = new S1();
        System.out.println(s1.add(3, 5));
        System.out.println(s1.add("my ", "pet"));
    }
}

abstract class S1 {

    abstract int add(int a, int b);

    public String add(String a, String b) {
        return a + "," + b;
    }
}

class S2 extends S1 {

    public int add(int a, int b) {
        return a + b;
    }
}
```

Select one or more:

- [ ] Defining and implementing the non abstract method String

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lag question

What is the most suitable design pattern which describes the following statement?

Define an interface for creating an object, but let the subclasses decide which class to instantiate. It let the instantiation differ from subclasses.

Select one:

- Abstract Factory
- Template pattern
- Singleton
- Factory Method
- Bridge pattern

Next page

```
        System.out.println(s2.add(2, 3));
        System.out.println(s2.add("abc", "def"));
        S1 s1 = new S1();
        System.out.println(s1.add(3, 5));
        System.out.println(s1.add("my ", "pet"));
    }
}

abstract class S1 {

    abstract int add(int a, int b);

    public String add(String a, String b) {
        return a + "," + b;
    }
}

class S2 extends S1 {

    public int add(int a, int b) {
        return a + b;
    }
}
```

Select one or more:

- [ ] Defining and implementing the non abstract method String add(String a, String b) in class S1 is wrong
- [ ] Cannot use s2.add("abc", "def") as that method is not implemented in class S2
- [ ] S1 s1 = new S1(); is wrong as we cannot create an object from Class S1
- [ ] S1 should not be defined as an abstract class as String add(String a, String b) has an implementation
- [ ] S2 s2 = new S2(); is wrong as we cannot create an object from class S2

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What is the output of the following code?

```
class ABC {
    static int a = 5;
    static {
        a = a*3;
    }
}

public class Test {

    public static void main(String[] args) {
        System.out.println(ABC.a);
    }
}
```

Select one:

- 15
- Compilation error
- 5
- None of the given choices
- Runtime error

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Question **8**

Not yet answered

Marked out of 1.00

Flag question

What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 if(b = true) {
4     System.out.print(x);
5 }
6 else {
7     System.out.print(y);
8 }
9
```

Select one:

- The code compiles but there is no output
- 5
- 10
- Compiler error on line 2
- Compiler error on line 3

Next page

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Select the TRUE sentence(s) from the below

Select one or more:

- [ ] super.super() calls the default constructor of the parent class
- [ ] Constructor can take only one argument
- [ ] Constructors are declared as void methods as those do not return any value
- [ ] this() calls the default constructor of the current instance
- [ ] this and this() are used for different purposes in Java

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Suppose you need to work with a collection of elements that need to be sorted in their natural ordering, iterated in descending order, and each element has a unique string associated with its value.

Which of the following collections classes in the java.util package best suit your needs for this scenario?

Select one:

- TreeMap
- Vector
- ArrayList
- HashMap
- HashSet

Next p

Determine the output:

```
public class Test{
  public static void main(String args[]){
    String str = null;
    if(str.length() == 0){
          System.out.print("1");
    }
    else if(str == null){
          System.out.print("2");
    }
    else{
          System.out.print("3");
    }
  }
}
```

Select one:

- a. "null" is printed
- b. "2" is printed
- c. An exception is thrown at runtime
- d. "1" is printed
- e. "3" is printed

Question **3**

Not yet answered

Marked out of 1.00

Flag question

What is the output of this program?

```
class output {
  public static void main(String args[])
  {
    String c = ("Hello, I love java programming").substring(3, 9);
    System.out.println(Character.isLowerCase(c.charAt(2)));
  }
}
```

Select one:

- a. true
- b. false
- c. Compilation Error
- d. A StringOutOfBoundException will be thrown
- e. 1

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Given the following class definition:

```
1.  public abstract class MyWindowCloser {
2.      protected abstract void closeWindow(String id);
3.  }
```

which of the following methods could appear in a child class of MyWindowCloser ?

Select one or more:

- void closeWindow(String id)
- private void closeWindow()
- protected int closeWindow(String id)
- public int closeWindow(String x)
- protected void closeWindow(String id)

Question **12**

Not yet answered

Marked out of 1.00

Flag question

Complete the following code so that it compile successfully and prints the output as ***onethree***

```
String s = "Hello";
String t = new String(s);

if("Hello".[   ](s)) {
    System.out.print("one");
}

if(t[   ]s) {
System.out.print("two");
}

if(t.[   ](s)) {
System.out.print("three");
}
```

equals | ==

== | equals

equals | ==

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Question **8**

Not yet answered

Marked out of 1.00

Flag question

```
public class StringDemo {
  public static void main(String args[]){
    String str = "I" + "like" + "Java";
    System.out.println(str);
  }
}
```

What is the output of the above program?

Select one:

- a. I like Java
- b. I Like Java
- c. None of the answers
- d. IlikeJava
- e. I Like

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In inheritance concept,

Select one or more:

- child class can override exsiting methods of parent class
- a parent class can have any number of child classes
- a child class can have any number of parent classes
- during object creation, child class object executes child class constructor(s) only
- child class objects acquire a copy of all attributes and methods defined in the parent, other than priv

What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 System.out.print(x++);
4 if(b = true) {
5         System.out.print(x);
6 }
7 else {
8         System.out.print(y);
9   }
```

Select one or more:

- [x] 5
- [x] 6
- [ ] Compiler error on line 5.
- [ ] Compiler error on line 6.
- [ ] 10

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What is the result of the following code?

```
1  byte twelve = -12;
2  Byte b1 = new Byte(twelve);
3  Byte b2 = new Byte(twelve);
4  if(b1.byteValue() == b2) {
5      System.out.println("equal");
6  }
7  else {
8   System.out.println("not equal");
9  }
10
```

Select one:

- Line 4 generates a compiler error.
- not equal
- An exception is thrown on line 6.
- Line 1 generates a compiler error.
- equal

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Given the following class definitions

```
1   public class Parent {
2           protected void sayHi() {
3               System.out.print("Hi");
4           }
5   }
6
7   class Child extends Parent {
8           public void sayHi() {
9               System.out.print("Hello");
10      }
11  }
```

Parent p = new Child();

p.sayHi();

Select one or more:

- Line 16 causes an exception to be thrown.
- Hello
- Compiler error on line 15
- Hi
- Compiler error on line 8

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What is the result of the following program?

```
1.  public abstract class Book {
2.      public final void read() {
3.          System.out.println("Reading a Book");
4.      }
5.
6.      public static void main(String [] args) {
7.          Book book = new NonFictionBook();
8.          book.read();
9.      }
10. }
11.
12. class NonFictionBook extends Book {
13.     public void read() {
14.         System.out.println("Reading a NonFictionBook");
15.     }
16. }
```

Select one:

- Compile error on line
- Reading a Book
- Reading a NonFictionBook
- Compile error on line 13
- Compile error on line 8

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Flag question

```
String t = new String(s);

if("Hello". equals (s)) {
    System.out.print("one");
}

if(t  ==  s) {
 System.out.print("two");
}

 if(t. equals (s)) {
 System.out.print("three");
 }
```

==

equals

==

Moodle

Question 9

Not yet answered

Marked out of 1.00

Flag question

Given the following Vehicle and Car class definitions:

```
1.  package my.vehicles;
2.
3.  public class Vehicle {
4.      public String make;
5.      protected String model;
6.      private int year;
7.      int mileage;
8.  }
```

```
1.  package my.vehicles.cars;
2.
3.  import my.vehicles.*;
4.
5.  public class Car extends Vehicle {
6.      public Car() {
7.
8.      }
9.  }
```

which of the following statements can appear on line 7 so that the Car class compiles successfully?

Select one or more:

- [ ] None of the mention
- [x] mileage = 15285;
- [x] model = " Pilot " ;
- [x] make = " Honda " ;
- [x] year = 2009;

≡ Quiz navigation

Finish attempt ...

Time left 1:32:01

MCQ SECTION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

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What is the most suitable design pattern which describes the following statement?

Encapsulate a request as an object, thereby letting you parametrize clients with different requests, queue or log requests, and support th
undoable operation

Select one:

- Adapter pattern
- Command pattern
- Template pattern
- Strategy pattern
- Bridge pattern

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What is true about java constants in coding?

Select one or more:

- A global constant should be default and static
- When declaring, all the letters in the constants should be upper case
- Constants can remove magic numbers in the code
- You cannot change the value in the constant
- Constant will be inherited to sub classes

Sri Lanka Institute of Information Technology

In inheritance concept,

Select one or more:

- [ ] child class objects acquire a copy of all attributes and methods defined in the parent, other than private members
- [ ] during object creation, child class object executes child class constructor(s) only
- [ ] a child class can have any number of parent classes
- [x] a parent class can have any number of child classes
- [x] child class can override exsiting methods of parent class

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What is the result of the following program?

```
1.  public abstract class Book {
2.      public final void read() {
3.          System.out.println("Reading a Book");
4.      }
5.
6.      public static void main(String [] args) {
7.          Book book = new NonFictionBook();
8.          book.read();
9.      }
10. }
11.
12. class NonFictionBook extends Book {
13.     public void read() {
14.         System.out.println("Reading a NonFictionBook");
15.     }
16. }
```

Select one:

- Reading a Book
- Reading a NonFictionBook
- Compile error on line 13
- Compile error on line 8
- Compile error

What is the output of the following code?

```
public class Test {

    public static void main(String[] args) {
        int opt = 5;
        switch (opt){
        case 1:
            System.out.println("*****");
        case 3:
            System.out.println("$$$$$");
            break;
        case 5:
            System.out.println("#####");
        default:
            System.out.println("&&&&&");

        }
    }

}
```

Select one:

- #####
- Run time exception
- Compilation error
- #####
  &&&&&
- &&&&&

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Imagine there are three classes as "Person", "Employee" and "Teacher". All "Teacher" objects are both "Employees" and "Persons" too. You are supposed to implement this scenario using Java language and Objected oriented concepts. Already the "Teacher" is inherited from "Employee" class using extends.

The Object Oriented Concept when a class has two or more extending classes is Choose...

- Choose...
- interface
- Multiple Inheritance
- abstract classes
- inheritance

"Teacher" Choose... be implemented by extending "Person" class too using

Hence ,

Person should be Choose... and Employee should be Choose...

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What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 System.out.print(x++);
4 if(b = true) {
5     System.out.print(x);
6 }
7 else {
8     System.out.print(y);
9 }
```

Select one or more:

- [ ] Compiler error on line 6.
- [ ] Compiler error on line 5.
- [ ] 6
- [ ] 5
- [ ] 10

Question **4**

Not yet answered

Marked out of 1.00

Flag question

The String method compareTo() returns

Select one:

- a. +1
- b. -1
- c. true
- d. an Integer value
- e. false

Next page

Question **5**

Not yet answered

Marked out of 1.00

Flag question

What is the output of this program?

```
import java.util.*;
public class genericstack <T>   {
    Stack <T> stk = new Stack <T>();
    public void push(T obj) {
            stk.push(obj);
    }
    public T pop()      {
        T obj = stk.pop();
        return obj;
    }
}

class Output{
    public static void main(String args[]){
        genericstack <String> gs = new genericstack<String>();
        gs.push("Hello");
        System.out.println(gs.pop());
    }
}
```

Select one:

- a. H
- b. Runtime Error
- c. Hello
- d. Compilation Error
- e. null

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What is the most suitable design pattern which describes the following statement?

Define an interface for creating an object, but let the subclasses decide which class to instantiate. It let the instantiation differ from subclasses.

Select one:

- Factory Method
- Singleton
- Abstract Factory
- Bridge pattern
- Template pattern

Moodle

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Question 8

Not yet answered

Marked out of 1.00

Flag question

What is the output of the following code?

```
public class Test {

    public static void main(String[] args) {
        int opt = 5;
        switch (opt){
        case 1:
            System.out.println("*****");
        case 3:
            System.out.println("$$$$$");
            break;
        case 5:
            System.out.println("#####");
        default:
            System.out.println("&&&&&");

        }
    }

}
```

Select one:

- #####
- Run time exception
- Compilation error
- #####
  &&&&&
- &&&&&

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Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The output is always AB
- The program generates an exception at runtime
- The program does not compile
- The output is always B
- The output varies and is either AB or BA

What is the output of the following code?

```
public class Test {

    public static void main(String[] args) {
        int opt = 5;
        switch (opt){
        case 1:
            System.out.println("*****");
        case 3:
            System.out.println("$$$$$");
            break;
        case 5:
            System.out.println("#####");
        default:
            System.out.println("&&&&&");

        }
    }

}
```

Select one:

- #####
- Run time exception
- Compilation error
- #####
  &&&&&
- &&&&&

What is the output of the given code?

```
public class Test {

    public static void main(String[] args) {
        int x = 3;
        int y = 4;

        System.out.println(add(x, y));
        System.out.println(add(x+2, y+x));
    }

    public int add(int a, int b) {
        return a + b;
    }

}
```

Select one:

- 7
  7
- Runtime error
- None of the given choices
- 7
  12
- Compilation error

Quiz nav

Finish attempt ...

Time left 1:41:16

MCQ SECTION

ESSAY SECTION

FEEDBACK QUESTI

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What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 if(b = true) {
4     System.out.print(x);
5 }
6 else {
7     System.out.print(y);
8 }
9
```

Select one:

- The code compiles but there is no output
- Compiler error on line 3
- 10
- 5
- Compiler error on line 2

What is the output of the following code?

```
class ABC {
    final int a = 20;

    public ABC(int val) {
        a = val;
    }
}

public class Test {

    public static void main(String[] args) {

        ABC abc = new ABC(30);
        System.out.println(abc.a);
    }
}
```

Select one:

- 20
- Compilation error
- Non of the given choices
- 30
- Runtime error

Question 10

Not yet answered

Marked out of 1.00

Flag question

What is / are the error /s in the following program?

```
class Main {

    public static void main(String[] args) {
        S2 s2 = new S2();
        System.out.println(s2.add(2, 3));
        System.out.println(s2.add("abc", "def"));
        S1 s1 = new S1();
        System.out.println(s1.add(3, 5));
        System.out.println(s1.add("my ", "pet"));
    }
}

abstract class S1 {

    abstract int add(int a, int b);

    public String add(String a, String b) {
        return a + "," + b;
    }
}

class S2 extends S1 {

    public int add(int a, int b) {
        return a + b;
    }
}
```

Select one or more:

- S1 should not be defined as an abstract class as String add(String a. String b) has an implementation
- S2 s2 = new S2(); is wrong as we cannot create an object from class S2
- Cannot use s2.add("abc", "def") as that method is not implemented in class S2
- S1 s1 = new S1(); is wrong as we cannot create an object from Class S1
- Defining and implementing the non abstract method String add(String a. String b) in class S1 is wrong

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What is the result of the following program?

```
1.  public abstract class Book {
2.      public final void read() {
3.          System.out.println("Reading a Book");
4.      }
5.
6.      public static void main(String [] args) {
7.          Book book = new NonFictionBook();
8.          book.read();
9.      }
10. }
11.
12. class NonFictionBook extends Book {
13.     public void read() {
14.         System.out.println("Reading a NonFictionBook");
15.     }
16. }
```

Select one:

- Reading a NonFictionBook

- Compile error on line 7
- Compile error on line 13
- Reading a Book
- Compile error on line 8

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What is the output of the following code

```
public class Test {

    public static void main(String[] args) {
        int height = 5;
        int base = 3;
        double area = 1/2 * height * base;

        System.out.println("Area is : " + area);
    }

}
```

Select one:

- Area is : 8.0
- Area is : 7.0
- Area is : 7.5
- Area is : 0
- Area is : 0.0

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In which of the following pattern, a class behavior or its algorithm can be changed at run time?

Select one:

- Command pattern
- Template pattern
- Simple factory pattern
- Strategy pattern
- Abstract factory pattern

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Question 7

Not yet answered

Marked out of 1.00

Flag question

Imagine there are three classes as "Person", "Employee" and "Teacher". All "Teacher" objects are both "Employees" and "Persons" too. You are supposed to implement this scenario using Java language and Objected oriented concepts. Already the "Teacher" is inherited from "Employee" class using extends.

The Object Oriented Concept when a class has two or more extending classes is interface .

"Teacher" can be implemented by extending "Person" class too using JAVA.

Hence ,

Person should be an interface and Employee should be a class

Next page

Question 3
Not yet answered
Marked out of 1.00
Flag question

What is the output of the following code?

```
class ABC {
    final int a = 20;

    public ABC(int val) {
        a = val;
    }
}

public class Test {

    public static void main(String[] args) {

        ABC abc = new ABC(30);
        System.out.println(abc.a);
    }
}
```

Select one:

- Compilation error
- 20
- Runtime error
- 30
- Non of the given choices



Complete the following code so that it compile successfully and prints the output as ***abbaccca***

StringBuilder sb = new StringBuilder();

sb.[ ] ("aaa").[ ] (1, "bb").insert([ ], "ccc");

System.out.println(sb);

| | | | |
|---|---|---|---|
| append | 4 | 1 | insert |
| 4 | insert | 1 | append |
| 4 | 1 | insert | append |

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The output of the following fraction of code is

```
public class SpaceX {
  public static void main(String args[]){
    String s1 = new String("Falcon 9");
    String s2 = new String("Falcon 9");
    System.out.println(s1 == s2);
  }
}
```

Select one:

- a. false
- b. true
- c. Throws an Exception
- d. Falcon 9
- e. Falcon 9Falcon 9

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Given the following class definitions

```
1   public class Parent {
2           protected void sayHi() {
3               System.out.print("Hi");
4           }
5   }
6
7   class Child extends Parent {
8           public void sayHi() {
9               System.out.print("Hello");
10      }
11  }
```

what is output of the result of the following statements?

Parent p = new Child();

p.sayHi();

Select one or more:

- Compiler error on line 15
- Hello
- Hi
- Line 16 causes an exception to be thrown.
- Compiler error on line 8

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Question **8**

Not yet answered

Marked out of 1.00

Flag question

Which variables are correctly defined in the following code? The data type of the list can be any data type.

```
class Person {
   // ..
}

ArrayList<String> lst1 = new ArrayList<Integer>();
ArrayList<String> lst2 = new ArrayList<>();
Collection<Person> lst3 = new ArrayList<Integer>();
Collection<Integer> lst4 = new ArrayList<>();
```

Select one or more:

- a. lst3
- b. lst1
- c. lst4
- d. None
- e. lst2

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In inheritance concept,

Select one or more:

- [ ] child class objects acquire a copy of all attributes and methods defined in the parent, other than private members
- [ ] a parent class can have any number of child classes
- [ ] child class can override exsiting methods of parent class
- [ ] a child class can have any number of parent classes
- [ ] during object creation, child class object executes child class constructor(s) only

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When an exception is [ ], the [ ] searches the try statement's catch clauses from top to bottom and passes control of the program to the [ ] catch exception.

thrown | catch | throws

JVM | Exception Handler | system

first matching | exact | super class

Next page

Question 15

Not yet answered

Marked out of 1.00

Flag question

Select the **wrong** statement

Select one:

- JVM is a part of JRE
- JDK is a part of JRE
- JVM is a part of JDK
- All the other statements are correct
- JDK is a part of Java SDK

Which of the following are legal lines of Java code?

Select one or more:

- [ ] int a = (Byte)210;
- [ ] byte b = (byte)210;
- [ ] byte c = (int)210;
- [ ] byte d = (Integer)210;
- [ ] int w = (int)210;

Moodle

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Flag question

When an exception is thrown, the Exception Handler searches the try statement's catch clauses from top to bottom and passes control of the program to the _____ catch exception.

catch | throws

JVM | system

first matching | exact | super class

3

Next page

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Which of the following are legal lines of Java code?

Select one or more:

- [x] int a = (Byte)210;
- [x] byte b = (byte)210;
- [ ] byte c = (int)210;
- [ ] byte d = (Integer)210;
- [ ] int w = (int)210;

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What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 if(b = true) {
4     System.out.print(x);
5 }
6 else {
7     System.out.print(y);
8 }
9
```

Select one:

- The code compiles but there is no output
- Compiler error on line 3
- 10
- 5
- Compiler error on line 2

nswered
out of
question

```
Class myclass {
        int t = 40 ;
        myclass()
        {
                t = 80 ;
        }
    }
Class Main{
        Public static void main( String args[] )
        {
                myclass m1 = new myclass();
                system.out.println(m1.myclass);
        }
    }
```

Select one:

- a. Compilation error since we can not invoke the myclass()
- b. Compilation error since myclass() dose not have a return type
- c. Compilation error since class " myclass" dose not have a getter
- d. Compilation error since myclass() dose not have a access specifier
- e. Compilation error since class " myclass" dose not have a setter

Sri Lanka Institute of Information Technology

In inheritance concept,.

Select one or more:

- [ ] a child class can have any number of parent classes
- [x] child class can override exsiting methods of parent class
- [ ] child class objects acquire a copy of all attributes and methods defined in the parent, other than private members
- [x] a parent class can have any number of child classes
- [ ] during object creation, child class object executes child class constructor(s) only

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11

answered

out of

question

Which of the following are incorrect form of StringBuffer class constructor?

Select one:

- a. StringBuffer(String str)
- b. StringBuffer(int size , String str)
- c. StringBuffer(int size)
- d. StringBuffer()

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What is the result of the following program?

```
1.  public abstract class Book {
2.      public final void read() {
3.          System.out.println("Reading a Book");
4.      }
5.
6.      public static void main(String [] args) {
7.          Book book = new NonFictionBook();
8.          book.read();
9.      }
10. }
11.
12. class NonFictionBook extends Book {
13.     public void read() {
14.         System.out.println("Reading a NonFictionBook");
15.     }
16. }
```

- Compile error on line 7
- Reading a Book
- Compile error on line 13
- Compile error on line 8

Select one:

- Reading a NonFictionBook

What is the most suitable design pattern which describes the following statement?

Encapsulate a request as an object, thereby letting you parametrize clients with different requests, queue or log r
undoable operation

Select one:

- Bridge pattern
- Adapter pattern
- Strategy pattern
- Command pattern
- Template pattern

NetExam

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What is the output of the following code?

```
class ABC {
    final int a = 20;

    public ABC(int val) {
        a = val;
    }
}

public class Test {

    public static void main(String[] args) {

        ABC abc = new ABC(30);
        System.out.println(abc.a);
    }
}
```

Select one:

- 30
- Non of the given choices
- Runtime error
- Compilation error
- 20

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What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 System.out.print(x++);
4 if(b = true) {
5     System.out.print(x);
6 }
7 else {
8     System.out.print(y);
9 }
```

Select one or more:

- 5
- Compiler error on line 5.
- 6
- Compiler error on line 6.
- 10

Which of the following are legal lines of Java code?

Select one or more:

- byte d = (Integer)210;
- byte b = (byte)210;
- int w = (int)210;
- byte c = (int)210;
- int a = (Byte)210;

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What is the result of the following code?

```
1 int x = 5, y = 10;
2 boolean b = x < 0;
3 System.out.print(x++);
4 if(b = true) {
5     System.out.print(x);
6 }
7 else {
8     System.out.print(y);
9 }
```

Select one or more:

- [x] 5
- [ ] Compiler error on line 5.
- [x] 6
- [ ] Compiler error on line 6.
- [ ] 10

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Given the following class definitions

```
1  public class Parent {
2          protected void sayHi() {
3              System.out.print("Hi");
4          }
5  }
6
7  class Child extends Parent {
8          public void sayHi() {
9              System.out.print("Hello");
10     }
11 }
```

what is output of the resul
following statements?

Parent p = new Child();

p.sayHi();

Select one or more:

- Compiler error on line 8
- Hello
- Hi
- Line 16 causes an exception to be thrown.
- Compiler error on line 15

Drag and drop the suitable code snippets so that it will compile successfully ar

```
public class Hello <[ ]> {
  [ ]
  public Hello ([ ]) {
    this.t = t;
  }
  public String toString() {
    return t.toString();
  }
  public static void main(String [] args) {
    System.out.print(new Hello <[ ]> ("hi"));
    System.out.print(new Hello("there"));
  }
}
```

| | | |
|---|---|---|
| T extends Number | T | K |
| Integer t | T t; | String t |
| T t | Integer t | String t |
| String | Integer | T |

What is the output of the following program?

```
Class myclass {
        int t = 40 ;
        myclass()
        {
                t = 80 ;
        }
    }
 Class Main{
        Public static void main( String args[] )
        {
                myclass m1 = new myclass();
                system.out.println(m1.myclass);
        }
    }
```

Select one:

- a. Compilation error since myclass() dose not have a access specifier
- b. Compilation error since class " myclass" dose not have a getter
- c. Compilation error since we can not invoke the myclass()
- d. Compilation error since myclass() dose not have a return type
- e. Compilation error since class " myclass" dose not have a setter

What is the output of the following code?

```
class ABC {
    final int a = 20;

    public ABC(int val) {
        a = val;
    }
}

public class Test {

    public static void main(String[] args) {

        ABC abc = new ABC(30);
        System.out.println(abc.a);
    }
}
```

Select one:

- 20
- Compilation error
- Non of the given choices
- 30
- Runtime error

≡ Quiz navig

Finish attempt ...

Time left 1:23:52

MCQ SECTION

ESSAY SECTION

FEEDBACK QUESTION

Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The program does not compile

NetExam

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Given the following class definitions

```
1   public class Parent {
2           protected void sayHi() {
3               System.out.print("Hi");
4           }
5   }
6
7   class Child extends Parent {
8           public void sayHi() {
9               System.out.print("Hello");
10      }
11  }
```

what is output of the result of the following statements?

Parent p = new Child();

p.sayHi();

Select one or more:

- [ ] Compiler error on line 8
- [x] Hello
- [ ] Hi
- [ ] Line 16 causes an exception to be thrown.
- [ ] Compiler error on line 15

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What will be the output of the following code segment?

```
class Test{
  public static void main(String args[]){
    String s = new String("This is a test String");
    System.out.println(s.replace("s","5"));
  }
}
```

Select one:

- a. This is a test String
- b. This is a test String
- c. Thi5 i5 a te5t String
- d. None of the above

Question **10**

Not yet answered

Marked out of 1.00

Flag question

Refer the code snippet below:

```
public class Test {
 public static void main(String [] args) {
        int I = 7 , j = 7;
        double d = 6.99;
        float f = 6.99f;
        boolean x = true, y = false;
        String s1= "Java is Interesting";
        String s2 = new String("Java is Interesting");
        }
}
```

Write the output of the below statement.

System.out.println(s1!=s2);

Answer:

Next page

NetExam

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13

answered

out of

question

What is the most suitable design pattern which describes the following statement?

Define an interface for creating an object, but let the subclasses decide which class to instantiate. It let the instantiation differ from subclasses.

Select one:

- Template pattern
- Singleton
- Abstract Factory
- Factory Method
- Bridge pattern

What is the correct answer regarding the following program?

```java
public class Ex01 {

    static int no = 10;

    static{
        no = no + add(no);
        System.out.println(no);
    }

    static int add(int no){
        return no;
    }

    {
        System.out.println(no);
    }

    public Ex01() {
        System.out.println("Construcor");
    }

    public static void main(String[] args) {
        Ex01 ex01 = new Ex01();
    }
}
```

20
20
const

Select one:

- Constructor

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Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The output varies and is either AB or BA
- The output is always B
- The output is always AB
- The program generates an exception at runtime
- The program does not compile

What is the output of the given code?

```
public class Test {

    public static void main(String[] args) {
        int x = 3;
        int y = 4;

        System.out.println(add(x, y));
        System.out.println(add(x+2, y+x));
    }

    public int add(int a, int b) {
        return a + b;
    }

}
```

Select one:

- 7
  12
- None of the given choices
- Compilation error
- 7
  7
- Runtime error

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You are going to implement a generic method to count the number of elements in a collection that have a specific property (for example, odd integers, prime numbers, and palindromes).

You can refer the output given in **Main** class below.

```
public class Mymain {

    public static void main(String[] args) {
        Collection<Integer> ci = new ArrayList();
        ci.add(1);
        ci.add(2);
        ci.add(3);
        ci.add(4);
        int count = Algorithm.countIf(ci, new OddPredicate());
        System.out.println("Number of odd integers = " + count);
    }
}
```

```
Number of odd integers = 2
```

1. Implement an generic interface called "*UnaryPredicate*" where it have a method call *test* which accepts a generic type and returns if the property existing or not.
2. Implement a class called "*OddPredicate*" where is use the "*UnaryPredicate*" interface in the *OddPredicate* class. is checks if the given integer is odd or not.
3. Implement the class called "*Algorithm*" where it has a *countIf* method which accept the object and the *predicate*. It should returns the count which the predicate is existing in the object list.

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Finish attempt ...

Time left 1:19:59

MCQ SECTION

1 2 3 4 9 10 11 12

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

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Question **16**

Not yet answered

Marked out of 10.00

Flag question

This question is based on Java collections.

Java developer was asked to develop a code where it takes the mathematical expression and check the parenthesis are balanced in that expression.

Write down the class called "Checkparanthesis" where it takes the expression as the user input.

Then check the expression is balanced with the parenthesis and give the relevant output.

Refer the console output below for your reference.

```
Parenthesis Matching Test

Enter expression
((3+5) *4)-1))+100)

Matches and Mismatches:

')' at index 6 matched with ')' at index 2
'(' at index 1 is unmatched
```

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Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The output varies and is either AB or BA
- The output is always B
- The output is always AB
- The program generates an exception at runtime
- The program does not compile

This question is based on Java collections.

java developer was asked to develop a code where it takes the mathematical expression and check the parenthesis are balanced in that expression.
Write down the class called "Checkparanthesis" where it takes the expression as the user input.

Then check the expression is balanced with the parenthesis and give the relevant output.

Refer the console output below for your reference.

```
Parenthesis Matching Test

Enter expression
((3+5) *4)-1))+100)

Matches and Mismatches:

')' at index 6 matched with ')' at index 2
'(' at index 1 is unmatched
```

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What is the output of the following code ?

```
public class Test {

    public static void main(String[] args) {
        int i = 5;
        while (i<10)    {
            System.out.println(i++);
            System.out.println(++i);
        }
    }

}
```

Select one:

- 5
  6
  7
  8
  9
  10
- Infinite loop
- 5
  8
  11

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Select the **wrong** statement

Select one:

- All the other statements are correct
- JVM is a part of JRE
- JDK is a part of JRE
- JVM is a part of JDK
- JDK is a part of Java SDK

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on

What is the result of the following program?

```
public class Question03 {
    public static void doSomething(int i){
        System.out.println("method one");
    }

    public static void doSomething(Byte b){
        System.out.println("method two");
    }

    public static void main(String[] args) {
        byte b = -12;
        doSomething(b);
    }
}
```

Select or

- Compiler error on line
- method one
- method one method two
- An exception will be thrown
- method two

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What is the result of the following program?

```
public class Question03 {
    public static void doSomething(int i){
        System.out.println("method one");
    }

    public static void doSomething(Byte b){
        System.out.println("method two");
    }

    public static void main(String[] args) {
        byte b = -12;
        doSomething(b);
    }
}
```

Select one:

- method one method two
- method one
- Compiler error on line
- An exception will be thrown
- method two

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Question 14

Not yet answered

Marked out of 1.00

Flag question

Which of the following statements are valid?

Select one or more:

- a. Map < String, ? extends Number > hm = new HashMap < String, Integer > ();
- b. HashSet < Number > hs = new HashSet <>();
- c. List < String > list = new Vector < String > ();
- d. HashSet < Number > hs = new HashSet < Integer > ();
- e. HashSet < Number,Number > hs = new HashSet <Integer,String>();

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Question 15

Not yet answered

Marked out of 1.00

Flag question

What is the result of the following program?

```
public class Question03 {
    public static void doSomething(int i){
        System.out.println("method one");
    }

    public static void doSomething(Byte b){
        System.out.println("method two");
    }

    public static void main(String[] args) {
        byte b = -12;
        doSomething(b);
    }
}
```

Select one:

- method one method two
- method one
- Compiler error on line
- An exception will be thrown
- method two

Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String []
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The program generates an exception at runtime
- The output is always B
- The output varies and is either AB or BA
- The program does not compile
- The output is always AB

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tion

Which of the following is correct about the Factory design pattern?

Select one or more:

- [ ] This type of design pattern comes under creational pattern
- [ ] Factory pattern refers to newly created object using a common interface
- [ ] Its dependent objects are to be notified automatically
- [ ] Factory pattern creates object without exposing the creation logic to the client
- [ ] It shows one-to-many relationship between objects

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What will be output?

```
String S1 = "S1 ="+ "123"+"456";
String S2 = "S2 ="+ (123+456);
System.out.println( S1 + ", " +S2);
```

Select one:

- a. S1=579, S2=579
- b. None of the given options
- c. Compilation Error
- d. S1=123456, S2=579
- e. S1=123456, S2=123456

Question **15**

Not yet answered

Marked out of 1.00

Flag question

What is the output of the following code?

```
class ABC {
    final int a = 20;

    public ABC(int val) {
        a = val;
    }
}

public class Test {

    public static void main(String[] args) {

        ABC abc = new ABC(30);
        System.out.println(abc.a);
    }
}
```

Select one:

- Runtime error
- 20
- 30
- Compilation error
- Non of the given choices

Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The program generates an exception at runtime
- The output is always AB
- The output is always B
- The output varies and is either AB or BA
- The program does not compile

Question 14

Not yet answered

Marked out of 1.00

Flag question

Given the following class definition:

```
public abstract class MyWindowCloser {
        protected abstract void closeWindow(String id);
}
```

which of the following methods could appear in a child class of MyWindowCloser ?

Select one or more:

- [ ] private void closeWindow()
- [ ] public int closeWindow(String x)
- [ ] protected int closeWindow(String id)
- [ ] void closeWindow(String id)
- [ ] protected void closeWindow(String id)

Next page

Marked out of 1.00

Flag question

```
public class Test{
  public static void main(String args[]){
    String str = null;
    if(str.length() == 0){
          System.out.print("1");
    }
    else if(str == null){
          System.out.print("2");
    }
    else{
          System.out.print("3");
    }
  }
}
```

Select one:

- a. "1" is printed
- b. An exception is thrown at runtime
- c. "3" is printed
- d. "null" is printed
- e. "2" is printed

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Given the following class definition:

```
1.  public abstract class MyWindowCloser {
2.      protected abstract void closeWindow(String id);
3.  }
```

which of the following methods could appear in a child class of MyWindowCloser ?

Select one or more:

- private void closeWindow()
- public int closeWindow(String x)
- protected void closeWindow(String id)
- void closeWindow(String id)
- protected int closeWindow(String id)

Question 15

Not yet answered

Marked out of 1.00

Flag question

What is the output of the following code?

```
class ABC {
    final int a = 20;

    public ABC(int val) {
        a = val;
    }
}

public class Test {

    public static void main(String[] args) {

        ABC abc = new ABC(30);
        System.out.println(abc.a);
    }
}
```

Select one:

- Runtime error
- 20
- 30
- Compilation error
- Non of the given choices

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Finish atter

Time left 1:

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1 2

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Sri Lanka Institute of Information Technology

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Flag question

This question is based on Java collections.

java developer was asked to develop a code where it takes the mathematical expression and check the parenthesis are balanced in that expression.

Write down the class called "Checkparanthesis" where it takes the expression as the user input.

Then check the expression is balanced with the parenthesis and give the relevant output.

Refer the console output below for your reference.

```
Parenthesis Matching Test

Enter expression
((3+5) *4)-1))+100)

Matches and Mismatches:

')' at index 6 matched with ')' at index 2
'(' at index 1 is unmatched
```

This question is based on Java collections.

java developer was asked to develop a code where it takes the mathematical expression and check the parenthesis are balanced in that expression.

Write down the class called "Checkparanthesis" where it takes the expression as the user input.

Then check the expression is balanced with the parenthesis and give the relevant output.

Refer the console output below for your reference.

```
Parenthesis Matching Test

Enter expression
((3+5) *4)-1))+100)

Matches and Mismatches:

')' at index 6 matched with ')' at index 2
'(' at index 1 is unmatched
```

Finish

Time

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What is the output of this program?

```
class output {
  public static void main(String args[])
  {
    String c = ("Hello, I love java programming").substring(3, 9);
    System.out.println(Character.isLowerCase(c.charAt(2)));
  }
}
```

Select one:

- a. A StringOutOfBoundException will be thrown
- b. Compilation Error
- c. true
- d. 1
- e. false

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What is the output of this program?

```
import java.util.*;
public class genericstack <T>   {
   Stack <T> stk = new Stack <T>();
   public void push(T obj) {
            stk.push(obj);
  }
  public T pop()        {
      T obj = stk.pop();
      return obj;
  }
}

class Output{
    public static void main(String args[]){
        genericstack <String> gs = new genericstack<String>();
        gs.push("Hello");
        System.out.println(gs.pop());
    }
}
```

Select one:

- a. H
- b. Hello
- c. Compilation Error
- d. Runtime Error
- e. null

What is the output of the given code?

```
public class Test {

    public static void main(String[] args) {
        int x = 3;
        int y = 4;

        System.out.println(add(x, y));
        System.out.println(add(x+2, y+x));
    }

    public int add(int a, int b) {
        return a + b;
    }

}
```

Select one:

- 7
  12
- Compilation error
- Runtime error
- None of the given choices
- 7
  7

Given the following class definitions

```
1   public class Parent {
2           protected void sayHi() {
3               System.out.print("Hi");
4           }
5   }
6
7   class Child extends Parent {
8           public void sayHi() {
9               System.out.print("Hello");
10      }
11  }
```

what is output of the result of the following statements?

Parent p = new Child();

p.sayHi();

Select one or more:

- Hello
- Line 16 causes an exception to be thrown.
- Compiler error on line 15
- Compiler error on line 8
- Hi

NetExam

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What will be the output of the following code segment?

```
class Test{
  public static void main(String args[]){
    String s = new String("This is a test String");
    System.out.println(s.replace("s","5"));
  }
}
```

Select one:

- a. This is a test String
- b. This is a test 5tring
- c. Thi5 i5 a te5t String
- d. None of the above

What is the output of given code?

```
public class Test {
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder("I love java");
        sb.substring(0,9);
        sb=sb.reverse();
        System.out.println(sb);
    }
}
```

Select one:

- aj evol I
- I love jav
- avaj evol I
- vaj evol I
- I love java

Sri Lanka Institute of Information Technology

15

nswered

out of

question

What will be output?

```
String S1 = "S1 ="+ "123"+"456";
String S2 = "S2 ="+ (123+456);
System.out.println( S1 + ", " +S2);
```

Select one:

- a. S1=123456, S2=123456
- b. Compilation Error
- c. S1=123456, S2=579
- d. None of the given options
- e. S1=579, S2=579

This question is based on Java collections.

java developer was asked to develop a code where it takes the mathematical expression and check the parenthesis are balanced in that expression.

Write down the class called "Checkparanthesis" where it takes the expression as the user input.

Then check the expression is balanced with the parenthesis and give the relevant output.

Refer the console output below for your reference.

```
Parenthesis Matching Test

Enter expression
((3+5) *4)-1))+100)

Matches and Mismatches:

')' at index 6 matched with ')' at index 2
'(' at index 1 is unmatched
```

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What is true about java constants in coding?

Select one or more:

- [ ] Constant will be inherited to sub classes
- [x] When declaring, all the letters in the constants should be upper case
- [ ] Constants can remove magic numbers in the code
- [ ] You cannot change the value in the constant
- [ ] A global constant should be default and static

Question 7
Not yet answered
Marked out of 1.00
Flag question

What is the output of the following program?

```
Class myclass {
        int t = 40 ;
        myclass()
        {
                t = 80 ;
        }
    }
Class Main{
        Public static void main( String args[] )
        {
                myclass m1 = new myclass();
                system.out.println(m1.myclass);
        }
    }
```

Select one:

- a. Compilation error since myclass() dose not have a return type
- b. Compilation error since myclass() dose not have a access specifier
- c. Compilation error since we can not invoke the myclass()
- d. Compilation error since class " myclass" dose not have a setter
- e. Compilation error since class " myclass" dose not have a getter

NetExam
Sri Lanka Institute of Information Technology

Question 16
Not yet answered
Marked out of 10.00
Flag question

You are going to implement a generic method to count the number of elements in a collection that have a specific property (for example, odd integers, prime numbers, and palindromes).

You can refer the output given in **Main** class below.

```
public class Mymain {

    public static void main(String[] args) {
        Collection<Integer> ci = new ArrayList();
        ci.add(1);
        ci.add(2);
        ci.add(3);
        ci.add(4);
        int count = Algorithm.countIf(ci, new OddPredicate());
        System.out.println("Number of odd integers = " + count);
    }
}
```

```
Number of odd integers = 2
```

1. Implement an generic interface called "*UnaryPredicate*" where it have a method call *test* which accepts a generic type and returns if the property existing or not.
2. Implement a class called "*OddPredicate*" where is use the "*UnaryPredicate*" interface.In the *OddPredicate* class, is checks if the given integer is odd or not.
3. Implement the class called "*Algorithm*" where it has a *countif* method which accept the object and the predicate. It should returns the count which the predicate is existing in the object list.

NetExam

Sri Lanka Institute of Information Technology

Given the following class definitions

```
1   public class Parent {
2           protected void sayHi() {
3               System.out.print("Hi");
4           }
5   }
6
7   class Child extends Parent {
8           public void sayHi() {
9               System.out.print("Hello");
10      }
11  }
```

what is output of the result of the followin statements?

Parent p = new Child();

p.sayHi();

Select one or more:

- Hello
- Hi
- Compiler error on line 15
- Compiler error on line 8
- Line 16 causes an exception to be thrown.

uestion 16

ot yet answered

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.00

Flag question

This question is based on java collections.

java developer was asked to develop a code where it takes the mathematical expression and check the parenthesis are balanc expression.

Write down the class called "Checkparanthesis" where it takes the expression as the user input.

Then check the expression is balanced with the parenthesis and give the relevant output.

Refer the console output below for your reference.

```
Parenthesis Matching Test

Enter expression
(((3+5) *4)-1))*100)

Matches and Mismatches:

")" at index 6 matched with ")" at index 2
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```

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d

You are going to implement a generic method to count the number of elements in a collection that have a specific property (for example odd integers, prime numbers, and palindromes).

You can refer the output given in **Main** class below.

```
public class Mymain {

    public static void main(String[] args) {
        Collection<Integer> ci = new ArrayList();
        ci.add(1);
        ci.add(2);
        ci.add(3);
        ci.add(4);
        int count = Algorithm.countIf(ci, new OddPredicate());
        System.out.println("Number of odd integers = " + count);
    }

}
```

run:
Number of odd integers = 2

1. Implement an generic interface called "UnaryPredicate" where it have a method call test which accepts a generic type and returns if the property existing or not.

If generics are not used, ArrayList can ho
objects.



# Example : ArrayList

Ref: Java Complete

```
import java.util.*;

class ArrayListDemo {
  public static void main(String args[]) {
    // Create an array list.
    ArrayList<String> al = new ArrayList<String>();

    System.out.println("Initial size of al: " +
                       al.size());

    // Add elements to the array list.
    al.add("C");
    al.add("A");
    al.add("E");
    al.add("B");
    al.add("D");
    al.add("F");
    al.add(1, "A2");

    System.out.println("Size of al after additions: " +
                       al.size());

    // Display the array list.
    System.out.println("Contents of al: " + al);

    // Remove elements from the array list.
    al.remove("F");
    al.remove(2);

    System.out.println("Size of al after deletions: " +
                       al.size());

    System.out.println("Contents of al: " + al);
}
```

```java
public class Cat {
    public String name;

    public void parseName() {
        System.out.print("1");
        try {
            System.out.print("2");
            int x = Integer.parseInt(name);
            System.out.print("3");
        }catch(NullPointerException e) {
            System.out.print("4");
        }
        System.out.print("5");
    }
    public static void main(String [] args) {
        Cat felix = new Cat();
        felix.name = "Felix";
        felix.parseName();
        System.out.print("6");
    }
}
```

Select one:

- a. 12 , followed by a stack trace for a NumberFormatException
- b. 124 , followed by a stack trace for a NumberFormatException
- c. 1256
- d. 12456
- e. 1256 , followed by a stack trace for a NumberFormatException

NetExam

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Which of the following is wrapper class for data type char?

Select one:

- a. Float
- b. Letter
- c. String
- d. Character
- e. Char

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        ci.add(2);
        ci.add(3);
        ci.add(4);
        int count = Algorithm.countIf(ci, new OddPredicate());
        System.out.println("Number of odd integers = " + count);
    }

}
```

```
Number of odd integers = 2
```

1. Implement an generic interface called "*UnaryPredicate*" where it have a method call *test* which accepts a generic type and returns if the property existing or not.
2. Implement a class called "*OddPredicate*" where is use the "*UnaryPredicate*" Interface.In the *OddPredicate* class, is checks if the given integer is odd or not.
3. Implement the class called "*Algorithm*" where it has a *countif* method which accept the object and the predicate. It should returns the count which the predicate is existing in the object list.

Quiz navigation

Finish attempt ...

Time left 1:23:00

MCQ SECTION

1 2 3 4 5 6

9 10 11 12 13 14

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

Sri Lanka Institute of Information Technology

Given the following class definition:

```
public class PrintA extends Thread {
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The output is always B
- The program generates an exception at runtime
- The program does not compile
- The output varies and is either AB or BA
- The output is always AB

NetExam

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Complete the following code so that it compile successfully and prints the output as ***abbaccca***

```
StringBuilder sb = new StringBuilder();
sb.[insert]("aaa").[append](1, "bb").insert([4], "ccc");
System.out.println(sb);
```

[append] [4] [1]

[4] [1] [insert]

[insert] [append] [1]

NetExam

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The output of the following fraction of code is

```
public class Tarzan {
  public static void main(String args[]){
    String s1 = "Jane";
    String s2 = "Jane";
    System.out.println(s1 == s2);
  }
}
```

Select one:

- a. true
- b. Jane
- c. false
- d. JaneJane
- e. Throws an Exception

1. Implement an generic interface call
property existing or not.

2. Implement a class called "*OddPredicate*" where is use the "*UnaryPredicate*"
is odd or not.

3. Implement the class called "*Algorithm*" where it has a *countIf* method which accept the object and the predicate.
which the predicate is existing in the object list.

```
import java.util.*;

public interface UnaryPredicate Comparable<T> {
    <T> test();
}
class OddPredicate <T extends Compara>
```

Sri Lanka Institute of Information Technology

What is the output of the following code?

```
class ABC {
    final int a = 20;

    public ABC(int val) {
        a = val;
    }
}

public class Test {

    public static void main(String[] args) {

        ABC abc = new ABC(30);
        System.out.println(abc.a);
    }
}
```

Select one:

- 20
- 30
- Compilation error
- Non of the given choices
- Runtime error

Dialog Mobitel 09:43
sanfoundry.com/java-pr
SANFOUNDRY
Global Education & Learning

```
(a+(b*c)-d)

Matches and Mismatches:

')' at index 8 matched with ')' at index 4
')' at index 11 matched with ')' at index 1



Parenthesis Matching Test

Enter expression
((x+y/(z-w))

Matches and Mismatches:

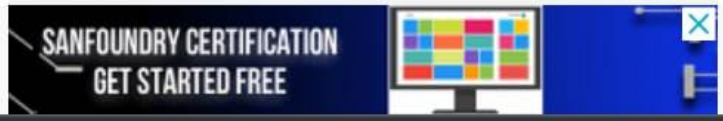
')' at index 11 matched with ')' at index 7
')' at index 12 matched with ')' at index 2
'(' at index 1 is unmatched



Parenthesis Matching Test

Enter expression
(a+b*(c-d)-(e-f/(g+h*(k-i)/(l-j+k

Matches and Mismatches:
```



Network connection lost. (Autosave failed).

Make a note of any responses entered on this page in the last few minutes, then try to re-connect.

Once connection has been re-established, your responses should be saved and this message will disappear.

```
import java.util.*;

public interface UnaryPredivate<T>{
public boolean test(T obj);

class OddPredicate implements UnrayPredicate<Integer>{
  public boolean test( Integer i ) { return i% 2!=0;}
}
```

```
1.import java.util.*;
  public interface UnaryPredicate<T>{
      pubic boolean test(T obj);
}

2.class OddPredicate implements UnaryPredicate<Integer>{
    public boolean test(Integer i){
     return i % 2 != 0;
}
}
3.public final class Algorithm{
    public static <T> int countIf(Collection<T> c, UnaryPredicate<T> p) {
      int count = 0;
      for (T elem: c)
        if (p.test(elem))
          ++count;
          return count;
    }
}
```

This Question is based on Java Threads.

Weather forecast Center is announcing the changing of the weather each day as Sunny day or Rainy day. Each Sunny day and Rainy day represents the separate threads and DisplayWheatherCondition thread will announce the day change. Each Sunny day and Rainy day changing message should print one after the other.

Refer to the main class and the console output given below.

Implement the two thread classes and the DisplayWheatherCondition class in the given space below.

```
public class Mymain extends  Thread{
    public static void main(String[] args){
        Mymain t = new Mymain();
        SunnyDay t1  = new SunnyDay(t);
        RainyDay t2 = new RainyDay(t);
        DisplayWheatherCondition t3 = new DisplayWheatherCondition(t);
        t1.start();
        t2.start();
        t3.start();

    }
}
```

```
run:
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
```

# NetExam

**Sri Lanka Institute of Information Technology**

You are going to implement a generic method to count the number of elements in a collection that have a spec
odd integers, prime numbers, and palindromes).

You can refer the output given in **Main** class below.

```
public class Mymain {

    public static void main(String[] args) {
        Collection<Integer> ci = new ArrayList();
        ci.add(1);
        ci.add(2);
        ci.add(3);
        ci.add(4);
        int count = Algorithm.countIf(ci, new OddPredicate());
        System.out.println("Number of odd integers = " + count);
    }
}
```

```
run:
Number of odd integers = 2
```

1. Implement an generic interface called "*UnaryPredicate*" where it have a method call *test* which accepts a generic type
property existing or not.
2. Implement a class called "*OddPredicate*" where is use the "*UnaryPredicate*" interface.In the *OddPredicate* class, is checks
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        t1.start();
        t2.start();
        t3.start();

    }
}
```

```
run:
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
```

```
3.  public class Vehicle {
4.      public String make;
5.      protected String model;
6.      private int year;
7.      int mileage;
8.  }
```

```
1.  package my.vehicles.cars;
2.
3.  import my.vehicles.*;
4.
5.  public class Car extends Vehicle {
6.      public Car() {
7.
8.      }
9.  }
```

which of the following statements can appear on line 7 so tha

Select one or more:

- [ ] mileage = 15285;
- [ ] make = " Honda " ;
- [ ] model = " Pilot " ;
- [ ] None of the mention
- [ ] year = 2009;

NetExam

Sri Lanka Institute of Information Technology

This question is based on Java collections.

java developer was asked to develop a code where it takes the mathematical expression and check the parenthesis are balanced in that expression.

Write down the class called "Checkparanthesis" where it takes the expression as the user input.

Then check the expression is balanced with the parenthesis and give the relevant output.

Refer the console output below for your reference.

```
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Enter expression
((3+5) *4)-1))+100)

Matches and Mismatches:

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```
public class Mymain {

    public static void main(String[] args) {
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        ci.add(1);
        ci.add(2);
        ci.add(3);
        ci.add(4);
        int count = Algorithm.countIf(ci, new OddPredicate());
        System.out.println("Number of odd integers = " + count);
    }
}
```

```
run:
Number of odd integers = 2
```

1. Implement an generic interface called "*UnaryPredicate*" where it have a method call *test* which accepts a generic type and returns if the property existing or not.

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NetExam

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When an exception is [ ], the [ ] searches the try statement's catch clauses from top to bottom and passes control of the program to the [ ] catch exception.

1

thrown | catch | throws

2

JVM | Exception Handler | system

first matching | exact | super class

3

Next page

NetExam

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What is/are the correct sentence(s) from below

Select one or more:

- A Java source file can have multiple classes and only one public class
- Java does not uses constructor calls when creating objects
- Like in C++, Java also requires memory allocation and deallocation explicitly by the programmer within the program code itself
- Java's new keyword allocates memory for a new object from the Heap and returns a reference to that memory area
- Java's GC (garbage collector) discards used/unused objects and programmers do not have to worry in deallocating memory

Next page

Quiz na

Finish attem

Time left 1:0

MCQ SEC

1 2

9

ESSAY

16

FEE

19

# Threads are not synchronized

st.java | ThreadImpl.java | Sample.java

```java
public class ThreadImpl extends Thread{

    Sample sample;
    String name;
    public static final String THREAD0 = "Thread 0";
    public static final String THREAD1 = "Thread 1";

    public ThreadImpl(Sample sample, String name) {
        this.sample = sample;
        this.name = name;
    }

    /**
     * Thread execution scenario implementation
     * @param args
     */
    public static void main(String[] args) {

        Sample sample = new Sample();
        ThreadImpl threadImpl1 = new ThreadImpl(sample,THREAD0);
        ThreadImpl threadImpl2 = new ThreadImpl(sample,THREAD1);
        threadImpl1.start();
        threadImpl2.start();
    }

    /**
     * New thread implementation
     */
    public void run(){
        sample.displayOutput(sample);
    }
}
```

Console

```
<terminated> T
Thread-0
Thread-1
Thread-0
Thread-1
Thread-1
Thread-0
Thread-0
Thread-1
Thread-0
Thread-1
Thread-0
Thread-1
Thread-0
Thread-1
Thread-0
Thread-1
Thread-0
Thread-1
Thread-0
Thread-1
```

Moodle

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[redacted]

Question 17

Not yet answered

Marked out of 10.00

Flag question

This Question is based on Java Threads.

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        t1.start();
        t2.start();
        t3.start();

    }
}
```

```
run:
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
```

Quiz navigation

Finish attempt ...

Time left 0:43:07

MCQ SECTION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

Sri Lanka Institute of Information Technology

Question **16**
Not yet answered
Marked out of 10.00
Flag question

You are going to implement a generic method to count the number of elements in a collection that have a specific property (for example, odd integers, prime numbers, and palindromes).

You can refer the output given in **Main** class below.

```
public class Mymain {

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        ci.add(2);
        ci.add(3);
        ci.add(4);
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    }
}
```

```
run:
Number of odd integers = 2
```

1. Implement an generic interface called "*UnaryPredicate*" where it have a method call *test* which accepts a generic type and returns if the property existing or not.
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Finish attempt ...

Time left **0:49:27**

MCQ SECTION

ESSAY SECTIO

FEEDBACK QU

Sri Lanka Institute of Information Technology

Question **16**
Not yet answered
Marked out of 10.00
Flag question

This question is based on Java collections.

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Enter expression
((3+5) *4)-1))+100)

Matches and Mismatches:

')' at index 6 matched with ')' at index 2
'(' at index 1 is unmatched
```

NetExam

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Choose... pattern prevents one from creating more than one instance of a variable.

- Choose...
- Facade
- Factory
- Singleton
- Observer

Select one:

- 5
  6
  7
  8
  9
  10

- Infinite loop

- 5
  8
  11

- 5
  7
  7
  9
  9
  11

- 5
  6
  6
  7
  7
  8
  8
  9
  9
  10

NetExam

Sri Lanka Institute of Information Technology

Question **11**

Not yet answered

Marked out of 1.00

Flag question

Which of the following is correct about the Factory design pattern?

Select one or more:

- [x] This type of design pattern comes under creational pattern
- [x] Factory pattern creates object without exposing the creation logic to the client
- [ ] Its dependent objects are to be notified automatically
- [ ] It shows one-to-many relationship between objects
- [x] Factory pattern refers to newly created object using a common interface

```
}

abstract class S1 {

    abstract int add(int a, int b);

    public String add(String a, String b) {
        return a + "," + b;
    }
}

class S2 extends S1 {

    public int add(int a, int b) {
        return a + b;
    }
}
```

Select one or more:

- [ ] Cannot use s2.add("abc", "def") as that method is not implemented in class S2
- [ ] Defining and implementing the non abstract method String add(String a, String b) in class S1 is wrong
- [ ] S1 should not be defined as an abstract class as String add(String a, String b) has an implementation
- [ ] S1 s1 = new S1(); is wrong as we cannot create an object from Class S1
- [ ] S2 s2 = new S2(); is wrong as we cannot create an object from class S2

Next page

Question **3**

Not yet answered

Marked out of 1.00

Flag question

What is the output of this program?

```
class output {
  public static void main(String args[])
  {
    String c = ("Hello, I love java programming").substring(3, 9);
    System.out.println(Character.isLowerCase(c.charAt(2)));
  }
}
```

Select one:

- a. true
- b. false
- c. Compilation Error
- d. A StringOutOfBoundException will be thrown
- e. 1

Sri Lanka Institute of Information Technology

Which of the following statements are valid?

Select one or more:

- a. HashSet < Number > hs = new HashSet < Integer > ();
- b. HashSet < Number > hs = new HashSet <>();
- c. HashSet < Number,Number > hs = new HashSet <Integer,String>();
- d. List < String > list = new Vector < String > ();
- e. Map < String, ? extends Number > hm = new HashMap < String, Integer > ();

Sri Lanka Institute of Information Technology

In which of these packages String and StringBuffer classes are implemented?

Select one:

- a. java.lang
- b. None of the given
- c. java.String
- d. java.awt
- e. java.util

Marked out of 1.00

Flag question

```
    public void run() {
        System.out.print("A");
    }
}
```

which of the statement is true about the following program?

```
public class PrintB {
    public static void main(String [] args) {
    Thread a = new PrintA();
    a.run();
    System.out.print("B");
    }
}
```

Select one:

- The program generates an exception at runtime
- The output is always AB
- The program does not compile
- The output varies and is either AB or BA
- The output is always B

Sri Lanka Institute of Information Technology

```
public class StringDemo {
  public static void main(String args[]){
    String str = "I" + "like" + "Java";
    System.out.println(str);
  }
}
```

What is the output of the above program?

Select one:

- a. I Like Java
- b. IlikeJava
- c. I like Java
- d. I Like
- e. None of the answers

Select one:

a.
```
public static <K,V> void genericMapDisplay(Map<K, LinkedHashMap<K, V>> subjectsMap){
    for (Map.Entry<K, LinkedHashMap<K, V>> subjects : subjectsMap.entrySet()) {
        System.out.println(subjects.getKey());
        for (Map.Entry<K, V> student : subjects.getValue().entrySet()) {
            System.out.println(student.getKey() + ", " + student.getValue());
        }
    }
}
```

b.
```
public static void genericMapDisplay(Map<K, LinkedHashMap<K, V>> subjectsMap){
    for (Map.Entry subjects : subjectsMap.entrySet()) {
        System.out.println(subjects.getKey());
        for (Map.Entry student : subjects.getValue().entrySet()) {
            System.out.println(student.getKey() + ", " + student.getValue());
        }
    }
}
```

c.
```
public static void genericMapDisplay(Map<K, LinkedHashMap<K, V>> subjectsMap){
    for (Map.Entry<K, LinkedHashMap> subjects : subjectsMap.entrySet()) {
        System.out.println(subjects.getValue());
        for (Map.Entry<K, V> student : subjects.getValue().entrySet()) {
            System.out.println(student.getKey() + ", " + student.getValue());
        }
    }
}
```

d.
```
public static void genericMapDisplay(Map<K, LinkedHashMap<K, V>> subjectsMap){
    for (Map.Entry<K, LinkedHashMap> subjects : subjectsMap.entrySet()) {
        System.out.println(subjects.getKey());
        for (Map.Entry<K, V> student : subjects.getValue().entrySet()) {
            System.out.println(student.getKey() + ", " + student.getValue());
        }
    }
}
```

Moodle

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Question **2**

Not yet answered

Marked out of 1.00

Flag question

The output of the following fraction of code is

```
public class SpaceX {
  public static void main(String args[]){
    String s1 = new String("Falcon 9");
    String s2 = new String("Falcon 9");
    System.out.println(s1 == s2);
  }
}
```

Select one:

- a. false
- b. Falcon 9Falcon 9
- c. Falcon 9
- d. Throws an Exception
- e. true

Next page

Quiz navigat

Finish attempt ...

Time left **1:55:28**

MCQ SECTION

1 2 3 4 9 10 11 12

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

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estion 1

yet answered

ed out of

g question

Which of these class is used to create an object whose character sequence is changeable?

Select one:

a. None of the mentioned

b. String

c. StringBuffer

d. Both of the mentioned

10.00

Flag question

printed the style. Each thread should print patterns one after the other and you should print t

triangle shape using given style.

Refer the console output and implement the two threads in the given space below.

Output:

```
Enter Pattern 1 = +
Enter Pattern 2 = -
Enter count = 6
========Threads start printing patterns.=======

 + + + + + +
 - - - - - -
  + + + + +
  - - - - -
   + + + +
   - - - -
    + + +
    - - -
     + +
     - -
      +
      -
```

Moodle

```
synchronized(ob){
System.out.println("it is a RainyDay");
System.out.println("Ending  RainyDay");
}
}
}

publick class DipsplayWheatheCondition extend Thread{
Mymain ob;

public DipsplayWheatheCondition(Mymain ob){

this.ob =ob;
}

public void run(){
synchronized(ob){
System.out.println("Next Day Started");
}
}

}
```

Next page

Moodle

```
public void run(){
synchronized(ob){
System.out.println("it is a sunnyday");
System.out.println("Ending sunnyday");
}
}

}



public class RainyDay extends Thread{
Mymain ob;

public RainyDay(Mymain ob){
this.ob =ob;
}
public void run(){
synchronized(ob){
System.out.println("it is a RainyDay");
System.out.println("Ending  RainyDay");
}
}
}
```

Next page

Moodle

```
19
20
21
```

```
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
```

FEEDBACK QUESTION

19

```
public class SunnyDay extends Thread{
Mymain ob;

public SunnyDay(Mymain ob){
this.ob =ob;
}
public void run(){
synchronized(ob){
System.out.println("it is a sunnyday");
System.out.println("Ending sunnyday");
}
}

}



public class RainyDay extends Thread{
Mymain ob;

public RainyDay(Mymain ob){
this.ob =ob;
}
```

NetExam

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This question is based on Design patterns.

Suppose you are visiting a botanical garden to buy plants and soil to make a garden in your home.

As a customer, you will say what plant you want and what is the soil type. Accordingly, the request will be send to the Helper and Helper will redirect the request for necessary sections.

Customer can select either clay or sandy as the soil type. Similarly, he can select either flowering plant or land plant for his garden.

1. Write the most suitable design pattern name that can be use in above scenario?
2. Implement the relevant classes to demonstrate the design pattern you named in part 1.

You can refer to the main class given below and implement the classes accordingly.

```
public class gardenMain {
    public static void main(String[] args) {
        Helper.getChoise("plant").getPlant("Flowering").buyPlant();
        Helper.getChoise("plant").getPlant("land").buyPlant();
        Helper.getChoise("soil").addSoil("clay").addSoil();

        }
}
```

```
Buy FloweringPlant
Buy LandPlants
add Clay soil
BUILD SUCCESSFUL (total time: 0 s
```

Moodle

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Question **18**

Not yet answered

Marked out of 10.00

Flag question

This question is based on Design patterns.

Assume that each Information Technology student needs to pass mathematics and also demonstrate soft skills (such as Critical Thinking, Team work and so on) in their Orientation to obtain their degrees. Coming Semesters, course will add some special papers to their courses based on their chosen paths (programming or Database).

1. Write the most suitable design pattern name that can be use in above scenario?
2. Implement the relevant classes to demonstrate the design pattern you named in part 1.

You can refer to the main class given below and implement the classes accordingly.

```
public class Demo {

    public static void main(String args[]) {
        Orientation ob1= new SoftwareEngineering();
        System.out.println("Software Enginnering paper");
        ob1.papers();
        ob1=new DataScience();
        System.out.println("\nData Science paper");
        ob1.papers();
    }
}
```

```
<terminated> Demo (1) [Java Application] C:\Program Files\Java\jre1.8.0
Software Enginnering paper
Mathematics paper
Softskills paper
Object Oriented Programming paper

Data Science paper
Mathematics paper
Softskills paper
Machine Learning paper
```

Quiz navigation

Finish attempt ...

Time left 0:27:25

MCQ SECTION

1 2 3 4 5 6 7 9 10 11 12 13 14 15

ESSAY SECTION

16 17 18

FEEDBACK QUESTION

19

Refer the console output and implement the two threads in the given space below.

Output:

```
Enter Pattern 1 = +
Enter Pattern 2 = -
Enter count = 6
========Threads start printing patterns.=======

 + + + + + +
 - - - - - -
  + + + + +
  - - - - -
   + + + +
   - - - -
    + + +
    - - -
     + +
     - -
      +
      -
```

Team work and so on) in their Orientation to obtain their degrees. Coming Semesters, course will add some special papers to their courses based on their chosen paths (programming or Database).

1. Write the most suitable design pattern name that can be use in above scenario?

2. Implement the relevant classes to demonstrate the design pattern you named in part 1.

You can refer to the main class given below and implement the classes accordingly.

```java

public class Demo {

    public static void main(String args[]) {
        Orientation ob1= new SoftwareEngineering();
        System.out.println("Software Enginnering paper");
        ob1.papers();
        ob1=new DataScience();
        System.out.println("\nData Science paper");
        ob1.papers();
    }
}

```

```
<terminated> Demo (1) [Java Application] C:\Program Files\Java\jre1.8.0
Software Enginnering paper
Mathematics paper
Softskills paper
Object Oriented Programming paper

Data Science paper
Mathematics paper
Softskills paper
Machine Learning paper
```

This Question is based on Java Threads.

Weather forecast Center is announcing the changing of the weather each day as Sunny day or Rainy day. Each Sunny day and Rainy day represents the separate threads and DisplayWheatherCondition thread will announce the day change. Each Sunny day and Rainy day changing message should print one after the other.

Refer to the main class and the console output given below.

Implement the two thread classes and the DisplayWheatherCondition class in the given space below.

```java
public class Mymain extends  Thread{
    public static void main(String[] args){
        Mymain t = new Mymain();
        SunnyDay t1  = new SunnyDay(t);
        RainyDay t2 = new RainyDay(t);
        DisplayWheatherCondition t3 = new DisplayWheatherCondition(t);
        t1.start();
        t2.start();
        t3.start();

    }
}
```

```
run:
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
Next Day started ....
It is a Rainy day
Ending Rainy day
Next Day started ....
It is a Sunny day
Ending Sunny day
```

```
public class SunnyDay extends Thread{
    MyMain t;
    public SunnyDay(MyMain t){
        this.t = t;
    }
    public void run(){
            synchronized(t){
                t.notifyAll();
                System.out.println("It is a Sunny Day");
                System.out.println("Ending SunnyDay");
                try{
                  t.wait()
                }catch(InterruptedException e){
                      System.out.println(e);
                }
            }
    }
}

public class RainyDay extends Thread{
    MyMain t;
    public RainyDay(MyMain t){
        this.t = t;
    }
    public void run(){
        synchronized(t){
            try{
```

```
            try{
            t.wait();
            }catch(InterruptedException e){
                System.out.println(e);
            }
            System.out.println("It is a Rainy Day");
            System.out.println("Ending Rainy Day")
            t.notifyAll();
        }
    }
}

public class DisplayWheatherCondition extends Thread{
    MyMain t;
    public DisplayWheatherCondition(MyMain t){
            this.t = t;
    }
    public void run(){
      synchronized(t){
        try{
         t.wait();
         }catch(InterruptedException e ){
           System.out.println(e);
        }

         System.out.println("Next Day Started....");
      }
    }

}
```

```
public class RainyDay extends Thread{
    MyMain t;
    public RainyDay(MyMain t){
        this.t = t;
    }
    public void run(){
        synchronized(t){
            try{
            t.wait();
            }catch(InterruptedException e){
                System.out.println(e);
            }
            System.out.println("It is a Rainy Day");
            System.out.println("Ending Rainy Day")
            t.notifyAll();
        }
    }
}

public class DisplayWheatherCondition extends Thread{
    MyMain t;
    public DisplayWheatherCondition(MyMain t){
        this.t = t;
    }
    public void run(){
        synchronized(t){
```

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Question 18
Not yet answered
Marked out of 10.00
Flag question

This question is based on Design patterns.

Suppose you are visiting a botanical garden to buy plants and soil to make a garden in your home.

As a customer, you will say what plant you want and what is the soil type. Accordingly, the request will be send to the Helper and Helper will redirect the request for necessary sections.

Customer can select either clay or sandy as the soli type. Similarly, he can select either flowering plant or land plant for his garden.

1. Write the most suitable design pattern name that can be use in above scenario?
2. Implement the relevant classes to demonstrate the design pattern you named in part 1.

You can refer to the main class given below and implement the classes accordingly.

```
public class gardenMain {
    public static void main(String[] args) {
        Helper.getChoise("plant").getPlant("Flowering").buyPlant();
        Helper.getChoise("plant").getPlant("land").buyPlant();
        Helper.getChoise("soil").addSoil("clay").addSoli();

        }
}
```

```
Buy FloweringPlant
Buy LandPlants
add Clay soil
BUILD SUCCESSFUL (total time: 0 s
```

Sri Lanka Institute of Information Technology

Batik printing company is printing their design using computer program and which is drawn using two concurrent Threads. Customer allowed to enter pattern styles through keyboard inputs and customer should select number of occurrences (count) to be printed the style. Each thread should print patterns one after the other and you should print the triangle shape using given style.

Refer the console output and implement the two threads in the given space below.

Output:

```
Enter Pattern 1 = +
Enter Pattern 2 = -
Enter count = 6
=======Threads start printing patterns.=======

 + + + + + +
 - - - - - -
  + + + + +
  - - - - -
   + + + +
   - - - -
    + + +
    - - -
     + +
     - -
      +
      -
```

```
public class OddPredicate implements UnaryPredicate{
    public <T extends Number> boolean test(T number){
     if(((number.intValue)%2) == 0){
          return false;
    }
     else{
        return true;
    }
   }
}

public class Algorithm{
    public static int countIf(Collection<Integer> ci, OddPredicate oddpred){
    int count=0;

    for(Integer a : ci){
        if(oddpred.test(a)==true)
          count++;
      }
     return count;
    }

}
```

```
import java.util.Collection;


Interface UnaryPredicate<T>{
    public <T extends Number> boolean test(T number);
}


public class OddPredicate implements UnaryPredicate{
   public <T extends Number> boolean test(T number){
     if(((number.intValue)%2) == 0){
          return false;
    }
     else{
        return true;
    }
   }
}


public class Algorithm{
    public static int countIf(Collection<Integer> ci, OddPredicate oddpred){
    int count=0;

    for(Integer a : ci){
        if(oddpred.test(a)==true)
          count++;
       }
    return count;
```

You are going to implement a generic method to count the number of elements in a collecti
odd integers, prime numbers, and palindromes).

You can refer the output given in **Main** class below.

```
public class Mymain {

    public static void main(String[] args) {
        Collection<Integer> ci = new ArrayList();
        ci.add(1);
        ci.add(2);
        ci.add(3);
        ci.add(4);
        int count = Algorithm.countIf(ci, new OddPredicate());
        System.out.println("Number of odd integers = " + count);
    }
}
```

```
run:
Number of odd integers = 2
```

1. Implement an generic interface called "*UnaryPredicate*" where it have a method call *test* which
property existing or not.

2. Implement a class called "*OddPredicate*" where is use the "*UnaryPredicate*" interface.In the *Odd*
is odd or not.

3. Implement the class called "*Algorithm*" where it has a *countIf* method which accept the object a
which the predicate is existing in the object list.

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Batik printing company is printing their design using computer program and which is drawn using two concurrent Threads. Customer allowed to enter pattern styles through keyboard inputs and customer should select number of occurrences (count) to be printed the style. Each thread should print patterns one after the other and you should print the triangle shape using given style.

Refer the console output and implement the two threads in the given space below.

Output:

```
Enter Pattern 1 = +
Enter Pattern 2 = -
Enter count = 6
=======Threads start printing patterns.=======

 + + + + + +
 - - - - - -
  + + + + +
  - - - - -
   + + + +
   - - - -
    + + +
    - - -
     + +
     - -
      +
      -
```

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This question is based on Design patterns.

Suppose you are visiting a botanical garden to buy plants and soil to make a garden in your home.

As a customer, you will say what plant you want and what is the soil type. Accordingly, the request will be send to the Helper and Helper will redirect the request for necessary sections.

Customer can select either clay or sandy as the soli type. Similarly, he can select either flowering plant or land plant for his garden.

1. Write the most suitable design pattern name that can be use in above scenario?
2. Implement the relevant classes to demonstrate the design pattern you named in part 1.

You can refer to the main class given below and implement the classes accordingly.

```
public class gardenMain {
    public static void main(String[] args) {
        Helper.getChoise("plant").getPlant("Flowering").buyPlant();
        Helper.getChoise("plant").getPlant("land").buyPlant();
        Helper.getChoise("soil").addSoil("clay").addSoli();

        }
}
```

```
Buy FloweringPlant
Buy LandPlants
add Clay soil
BUILD SUCCESSFUL (total time: 0 s
```

```
public abstract class Orientation{
        public final void papers(){
                MathsPaper();
                SoftSkillsPaper();
                SpecialPaper();
        }
        public abstract void SpecialPaper();
        public void MathsPaper(){
            System.out.pritnln("Mathematics Paper");
        }
        public void SoftSkillsPaper(){
            System.out.println("Softskills Paper");
        }
}

public class SoftwareEngineering extends Orientation{
        public void SpecialPaper(){
                System.out.println("Object Oriented Programming Paper");
        }
}

public class DataScience extends Orientation{
        public void SpecialPaper(){
            Systwm.out.println("Machine Learning Paper");
        }
}
```

1.Template Design Pattern

2.

```
public abstract class Orientation{
        public final void papers(){
                MathsPaper();
                SoftSkillsPaper();
                SpecialPaper();
        }
        public abstract void SpecialPaper();
        public void MathsPaper(){
            System.out.pritnln("Mathematics Paper");
        }
        public void SoftSkillsPaper(){
            System.out.println("Softskills Paper");
        }
}

public class SoftwareEngineering extends Orientation{
        public void SpecialPaper(){
                System.out.println("Object Oriented Programming Paper");
        }
}

public class DataScience extends Orientation{
        public void SpecialPaper(){
            Systwm.out.println("Machine Learning Paper");
```

NetExam

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This question is based on Design patterns.

Suppose you are visiting a botanical garden to buy plants and soil to make a garden in your home.

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You can refer to the main class given below and implement the classes accordingly.

```
public class gardenMain {
    public static void main(String[] args) {
        Helper.getChoise("plant").getPlant("Flowering").buyPlant();
        Helper.getChoise("plant").getPlant("land").buyPlant();
        Helper.getChoise("soil").addSoil("clay").addSoli();

        }
}
```

```
Buy FloweringPlant
Buy LandPlants
add Clay soil
BUILD SUCCESSFUL (total time: 0 s
```

Team work and so on) in their Orientation to obtain their degrees. Coming Semesters, course will add some special papers to their based on their chosen paths (programming or Database).

1. Write the most suitable design pattern name that can be use in above scenario?

2. Implement the relevant classes to demonstrate the design pattern you named in part 1.

You can refer to the main class given below and implement the classes accordingly.

```
public class Demo {

    public static void main(String args[]) {
        Orientation ob1= new SoftwareEngineering();
        System.out.println("Software Enginnering paper");
        ob1.papers();
        ob1=new DataScience();
        System.out.println("\nData Science paper");
        ob1.papers();
    }
}
```

```
<terminated> Demo (1) [Java Application] C:\Program Files\
Software Enginnering paper
Mathematics paper
Softskills paper
Object Oriented Programming pape

Data Science paper
Mathematics paper
Softskills paper
Machine Learning paper
```

This question is based on Design patterns.

Assume that each Information Technology student needs to pass mathematics and also demonstrate soft skills (such as Critical Thinking, Team work and so on) in their Orientation to obtain their degrees. Coming Semesters, course will add some special papers to their courses based on their chosen paths (programming or Database).

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        ob1.papers();
        ob1=new DataScience();
        System.out.println("\nData Science paper");
        ob1.papers();
    }
}
```

```
<terminated> Demo (1) [Java Application] C:\Program Files\Java\jre1.8.0
Software Enginnering paper
Mathematics paper
Softskills paper
Object Oriented Programming paper

Data Science paper
Mathematics paper
Softskills paper
Machine Learning paper
```

elper will redirect the request for necessary sections.

select either clay or sandy as the soli type. Similarly, he can select either flowering plant or land plant for his

most suitable design pattern name that can be use in above scenario?

the relevant classes to demonstrate the design pattern you named in part 1.

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 Helper.getChoise("plant").getPlant("Flowering").buyPlant();
 Helper.getChoise("plant").getPlant("land").buyPlant();
 Helper.getChoise("soil").addSoil("clay").addSoli();

 }
```

```
Buy FloweringPlant
Buy LandPlants
add Clay soil
BUILD SUCCESSFUL (total time: 0 s
```

```
public static void main(String[] args) {
    Helper.getChoise("plant").getPlant("Flowerin
    Helper.getChoise("plant").getPlant("land").b
    Helper.getChoise("soil").addSoil("clay").addS

    }
}
```

1. Abstract Factory Pattern

2.

```
public interface PlantType{
 public void getPlant();
}
public interface SoilType{
public void addSoil();
}

public class Flowering implements PlantType{
public void getPlant(){
System.out.println("Buy FloweringPlant");
}
}
public class LandPlant implements PlantType{
public void getPlant(){
System.out.println("Buy LandPlant");
}
}
```

```
public void addSoil();
}

public class Flowering implements PlantType{
public void getPlant(){
System.out.println("Buy FloweringPlant");
}
}
public class LandPlant implements PlantType{
public void getPlant(){
System.out.println("Buy LandPlant");
}
}

public class Clay implements SoilType{
public void addSoil(){
System.out.println("add Clay soil");
}
}
public class Sandy implements SoilType{
public void addSoil(){
System.out.println("add Sandy soil");
}
}
```

This question is based on Design patterns.

Suppose you are visiting a botanical garden to buy plants and soil to make a garden in your home.

As a customer, you will say what plant you want and what is the soil type. Accordingly, the request will be send to the Helper and Helper will redirect the request for necessary sections.

Customer can select either clay or sandy as the soil type. Similarly, he can select either flowering plant or land plant for his garden.

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```
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    public static void main(String[] args) {
        Helper.getChoise("plant").getPlant("Flowering").buyPlant();
        Helper.getChoise("plant").getPlant("land").buyPlant();
        Helper.getChoise("soil").addSoil("clay").addSoli();

        }
}
```

```
Buy FloweringPlant
Buy LandPlants
add Clay soil
BUILD SUCCESSFUL (total time: 0 s
```

1.Abstract Factory Pattern

2.

```
public interface PlantType{
public void getPlant();
```

```
public interface PlantType{
public void getPlant();
}

public interface SoilType{
public void addsoil();

}

public class Flowering implements Plant Type{
public void getPlant(){
system.out.println("Buy Flowering plant");
}

}

public class LandPlant implements PlantType{
public void getPlant(){

System.out.println("Buy Land Plant");

}
}
```