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Subject Web Tech
Batch CSE 06
Branch CSE

Assignment 7

Ques1 Static Variable Example

```java
public class ques1 {
    int price;
    String name;
    Static String category = "Fruits";
    ques1(int Fprice, String Fname)
    {
        price = Fprice;
        name = Fname;
    }

    void display() {
        System.out.println(price + "\t" + name + "\t"+
            category );
    }
}
```

```java
class staticTest
{
    Public static void main(String[] args)
    {
        ques1 obj1 = new ques1(100, 'Orange');
        ques1 obj2 = new ques1(200, 'Apple');
        obj1. display();
        obj2. display();
    }
}
```
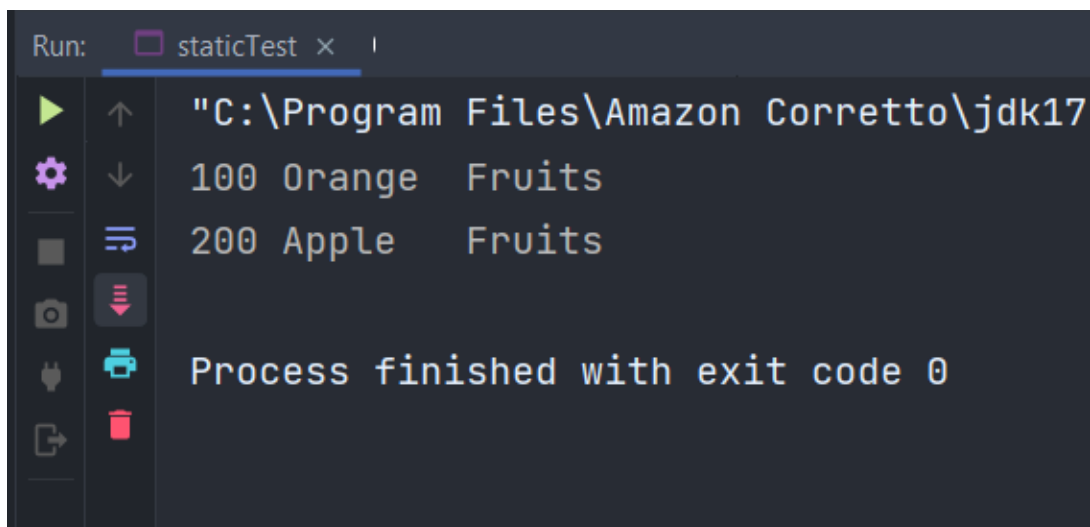
```
Run:    staticTest ×
  ▶  ↑    "C:\Program Files\Amazon Corretto\jdk17
  ⚙  ↓    100 Orange   Fruits
  ■  ⇥    200 Apple    Fruits
  ⏺  ⬇
  🔌  🖨   Process finished with exit code 0
  ↪  🗑
```

Ques 2 Working of Static Variable with counter

program

```java
class ques 2
{
    Static int count = 0;
    public void increment()
    {
        count ++;
    }
    public static void main(String[] args)
    {
        ques 2 obj1 = new ques 2();
        ques 2 obj2 = new ques2();
        obj1. increment();
        obj2. increment();
        System. out·println ("Obj1: count is = " + obj1. count);
        System. out. println ("Obj 2: count is = " + obj2. count);
    }
}
```

```
Run:    ques2 ×
    "C:\Program Files\Amazon Corretto\jdk17
    Obj1: count is=2
    Obj2: count is=2


    Process finished with exit code 0


Git    ▶ Run    TODO    Problems    Terminal    Build
```
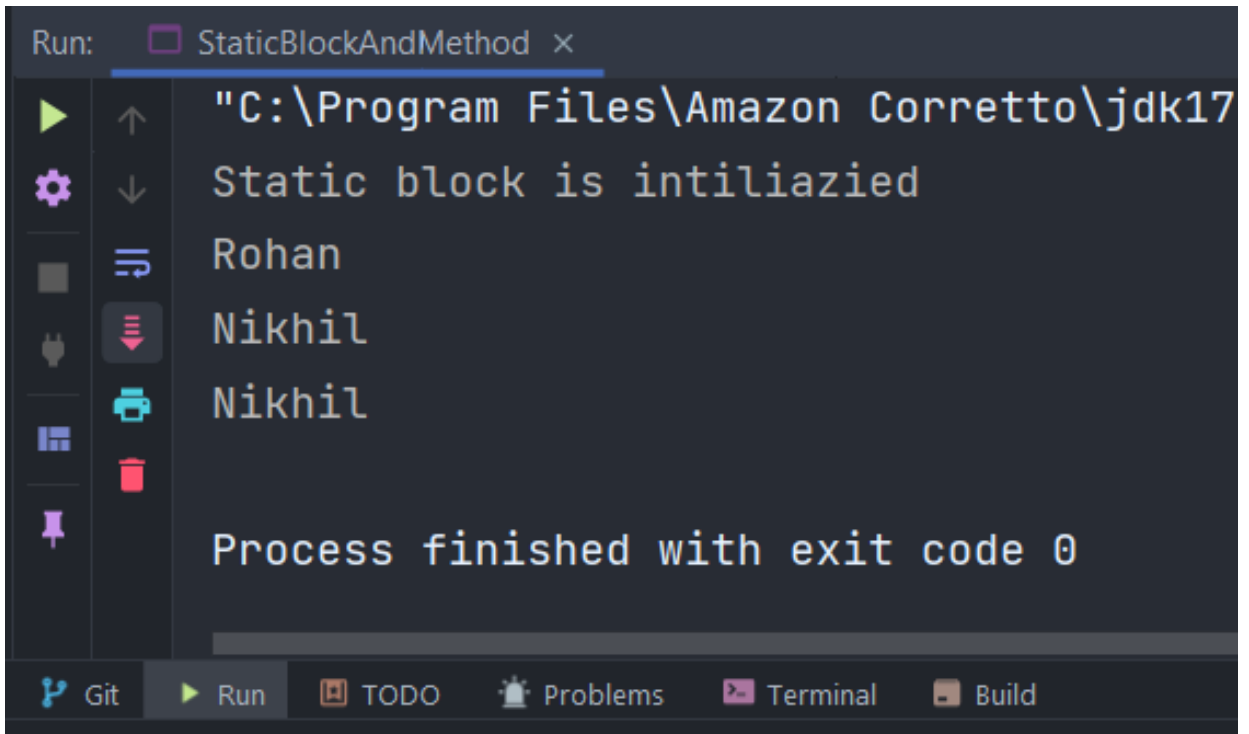
Ques 3 Static Methods & Static Block

```java
public class StaticBlockAndMethod {
    public static void main (String[] args) {
        Static_block e1 = new static_block();
        e1. showName();
        Static_block. changeName();

        static_block e2 = new Static_block();
        static_block e3 = new static_block();

        e2. showName();
        e3. showName();
    }
}

public class Static_block {
    static String name = "Rohan";

    static {
        System. out. println("Static block is initialized");
    }

    Static void changeName()
        name = "Nikhil";
}
```

```java
void showName() {
    System.out.println(name);
    }
}
```

```
"C:\Program Files\Amazon Corretto\jdk17
Static block is intiliazied
Rohan
Nikhil
Nikhil


Process finished with exit code 0
```

Git   ▶ Run   TODO   Problems   Terminal   Build

Ques 4 Constructor Overloading

```java
Public class ques4_Constructor_Overloading {
    int z;
    void ques5 ()
    {
        z = 0;
    }

    void ques5 (int x)
    {
        z = z + x;
    }

    void ques5 (int x, int y)
    {
        System.out.println(z);
        System.out.println(z + " - " + x + " - " + y);
    }

    public static void main(String [] args)
    {
        ques4_Constructor_Overloading obj = new
                        ques4_Constructor_Overloading()
```
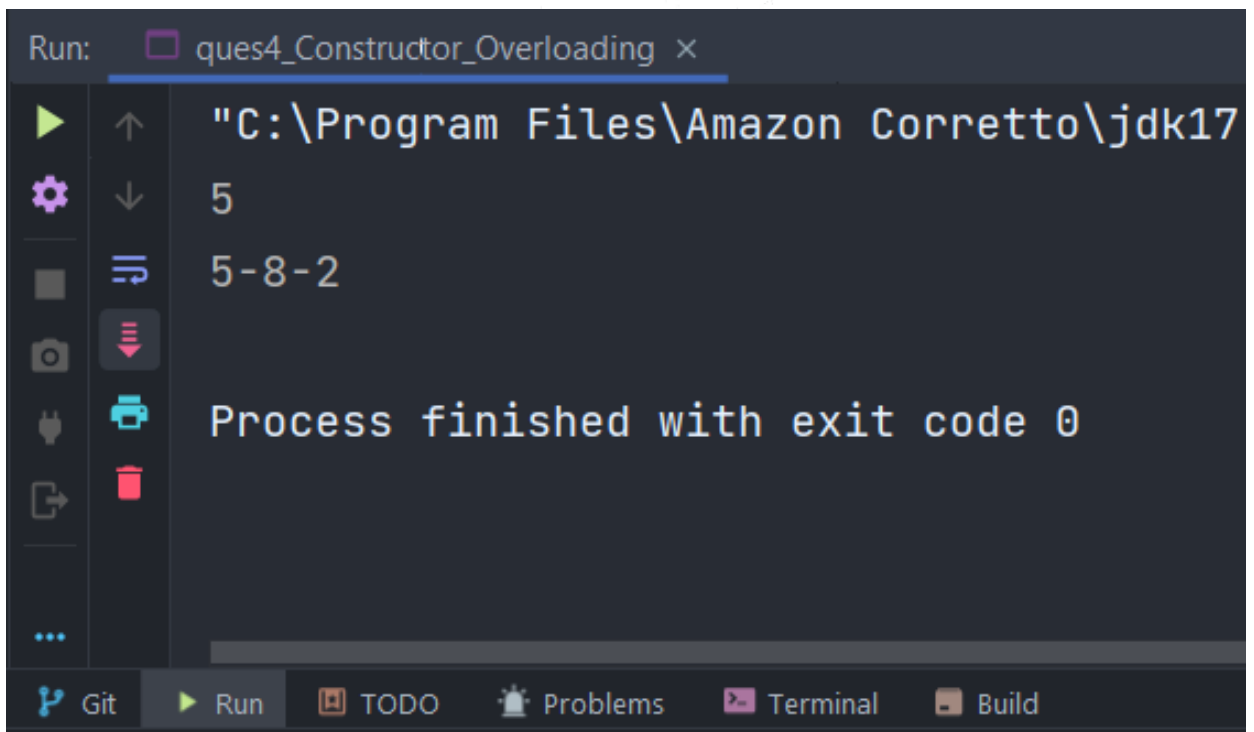
obj. ques5();
obj. ques5(5);
obj. ques5(8 , 2);
}
}

```
"C:\Program Files\Amazon Corretto\jdk17
5
5-8-2

Process finished with exit code 0
```

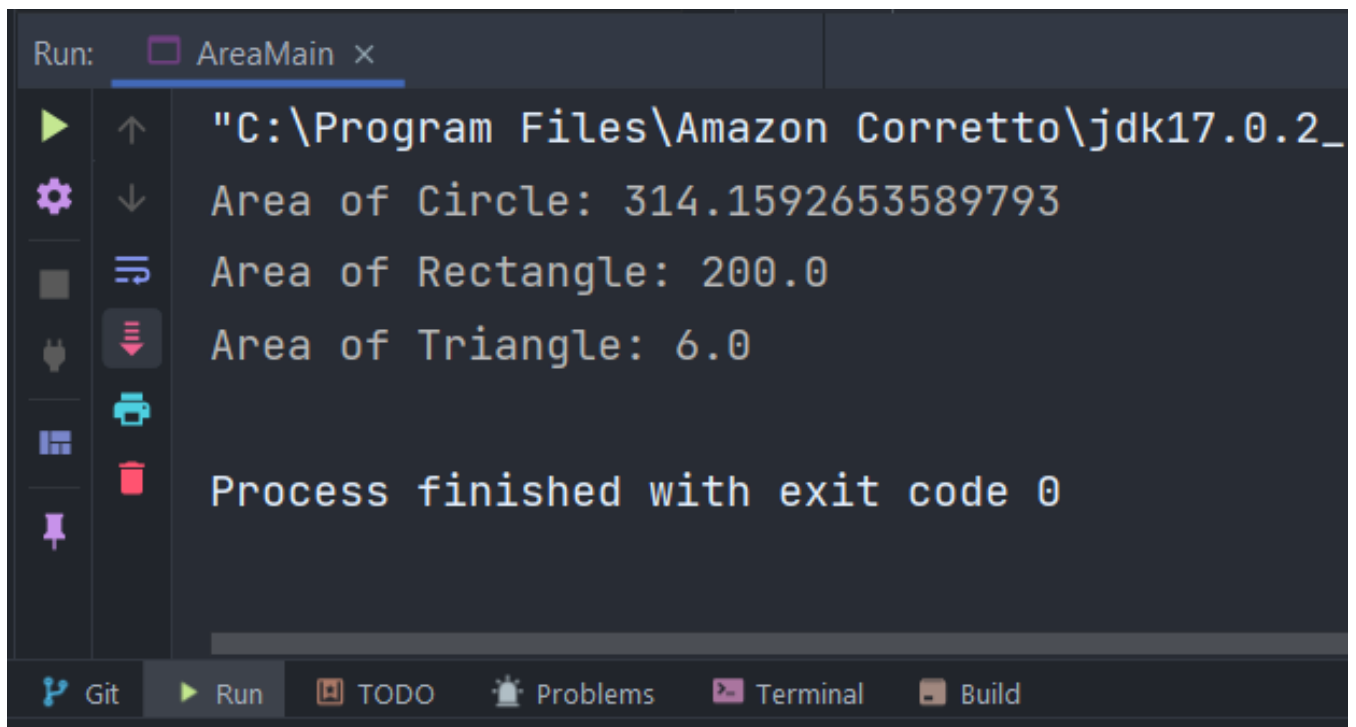Git   Run   TODO   Problems   Terminal   Build

Ques 5 Overload Area()

OverloadArea.java

```java
public class OverloadArea() {

    public static double area(double radius)
    {
        return Math.PI * (radius * radius);
    }

    public static double area(double length, double breadth)
    {
        return length * breadth;
    }

    public static double area(int a, int b, int c)
    {
        double temp = (a + b + c);
        double s = temp / 2;
        double areaofTriangle = Math.sqrt(s*(s -a)*
                            (s - b) * (s - c));
        return areaofTriangle;
    }
}
```

AreaMain.java

```java
public class AreaMain {
    public static void main ("Area of Circle : " +
                            OverloadArea.area (10));

    public static void main (String[] args) {
        System.out.println ("Area of Circle : " +
                            OverloadArea.area (10));

        System.out.println ("Area of Rectangle : " +
                            OverloadArea.area (10, 20));

        System.out.println ("Area of Triangle : " +
                            OverloadArea.area (2, 4, 6));
```

Run: AreaMain ×

```
"C:\Program Files\Amazon Corretto\jdk17.0.2_
Area of Circle: 314.1592653589793
Area of Rectangle: 200.0
Area of Triangle: 6.0


Process finished with exit code 0
```

Git   ▶ Run   TODO   Problems   Terminal   Build

Ques 6 Constructor in Multilevel Inheritance

```java
public class MultilevelInheritance {
    public static void main(String[] args) {

        WoodBox objw = new WoodBox(8, 9, 5, 6);

        objw.showProperties();

    }

}

class Plate {

    float width;
    float length;

    Plate(float width, float length) {
        this.width = width;
        this.length = length;

    }
}

class Box extends Plate {
    float height;
```

```java
    Box (float width, float height, float length) {
        super (width, length);
        this.height = height;
    }
}

class WoodBox extends Box {
    float thickness;

    WoodBox (float width, float height, float length, float
                                            thickness)
    {
        super (width, height, length);
        this.thickness = thickness;
    }

    void show pr
    void showProperties() {
        System.out.println("Length: " + length);
        System.out.println("Breadth: " + width);
        System.out.println("Height: " + height);
        System.out.println("Thickness: " + thickness);
    }
}
}
```

```
"C:\Program Files\Amazon Corretto\jdk17.
Length is5.0
Breath is8.0
Height is9.0
thickness is6.0


Process finished with exit code 0
```

Git ▶ Run ▣ TODO 🔔 Problems ▶_ Terminal ▬ Build

Build completed successfully in 1 sec, 894 ms (moments ago)

Ques 7 Area of Circle & Rectangle

```java
Import java.util.Scanner;

Public class ques7_inheritance_main {
    public static void main (String [] args) {
        Scanner sc = new Scanner (System.in);
        Circle1 crcl = new Circle();
        System.out.println ("Enter Radius");
        Crcl.r = sc.nextInt();
        System.out.println ("Area of Circle is: ");
        crcl.circlearea ();
        System.out.println ("Length & Breadth of
                                Rectangle: ");
        Rectangle rec = new Rectangle();
        rec.a = sc.nextInt();
        System.out.printl(
        rec.b = sc.nextInt();
        System.out.print Ln ("Area of Rectangle:");
        rec.recarea ()
```

```java
ques7_inheritance_demo.java

class Shape {
    float area;

    void showArea() {
        System.out.println(area);
    }
}

class Circle1 extends Shape {
    float rad;

    void circle area() {
        area = rad * rad * Math.PI;
        ShowArea();
    }
}

class Rectangle extento Shape {
    float a, b;

    void recarea() {
        area = a * b;
        ShowArea();
    }
}
```

```
"C:\Program Files\Amazon Corretto\jdk17.0.2_8\bin\java
Enter Radius: 5
Area of Circle is: 25.0
Enter Length and Breadth of Rectangle:
2 4
Area of Rectangle is: 8.0

Process finished with exit code 0
```