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Branch CSE

Batch CSE-06

Subject Web-Tech

Assignment 10

Ques 1

```
interface Income
```

```
{
```

```
    double earnings();
```

```
    double deductions();
```

```
    double bonus();
```

```
}
```

```
abstract class Manager implements Income
```

```
{
```

```
    double basic;
```

```
    public double earnings()
```

```
    {
```

```
        return basic + 0.8 * basic + 0.15 * basic;
```

```
    }
```

```
    public double deductions()
```

```
    { return 0.12 * basic;
```

```
    } }
```

```

class Substaff extends Manager
{
    Substaff(double base)
    {
        basic = base;
    }

    public double bonus()
    {
        return 0.5 * basic;
    }
}

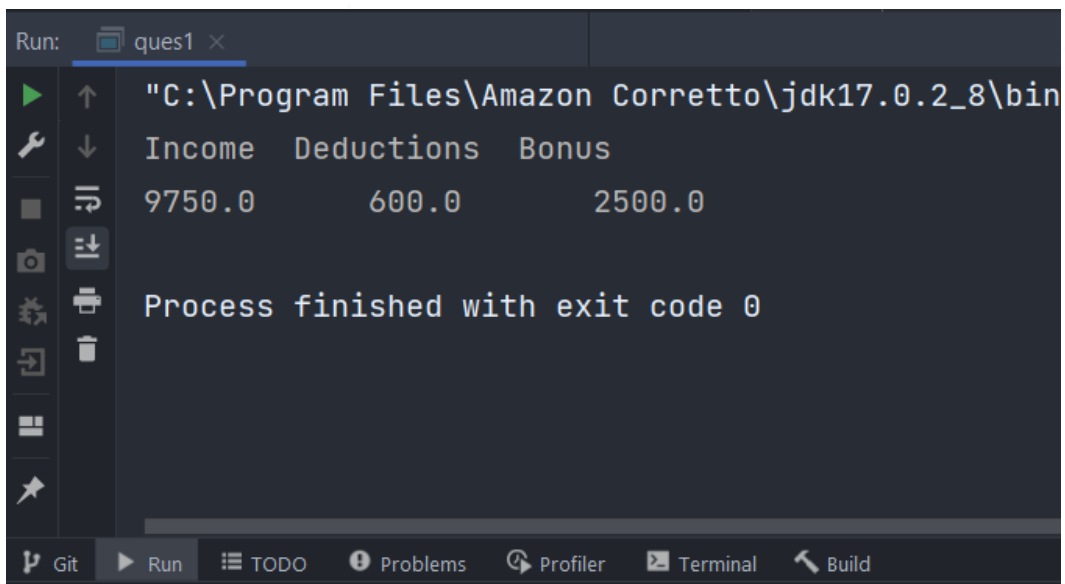
```

public class ques1

```

{
    public static void main(String[] args)
    {
        Substaff obj = new Substaff(1500);
        System.out.println("Income \t Deductions \t Bonus");
        System.out.println(obj.earnings() + "\t" + obj.
            deductions() + "\t" + obj.bonus());
    }
}

```



```
Run: ques1 x
"C:\Program Files\Amazon Corretto\jdk17.0.2_8\bin
Income  Deductions  Bonus
9750.0      600.0      2500.0
Process finished with exit code 0
```

Ques 2

```
interface motor {
    int capacity = 10;
    void run();
    void consume();
}
```

```
class washing_machine implements motor {
    public void run() {
        System.out.println("Inside run Method");
    }
```

```
    public void consume() {
        System.out.println("Consume Method");
    }
```

```
}
```

```
public class ques2 {
```

```
    public static void main(String[] args)
```

```
    {
```

```
        motor ob = new washing-machine();
```

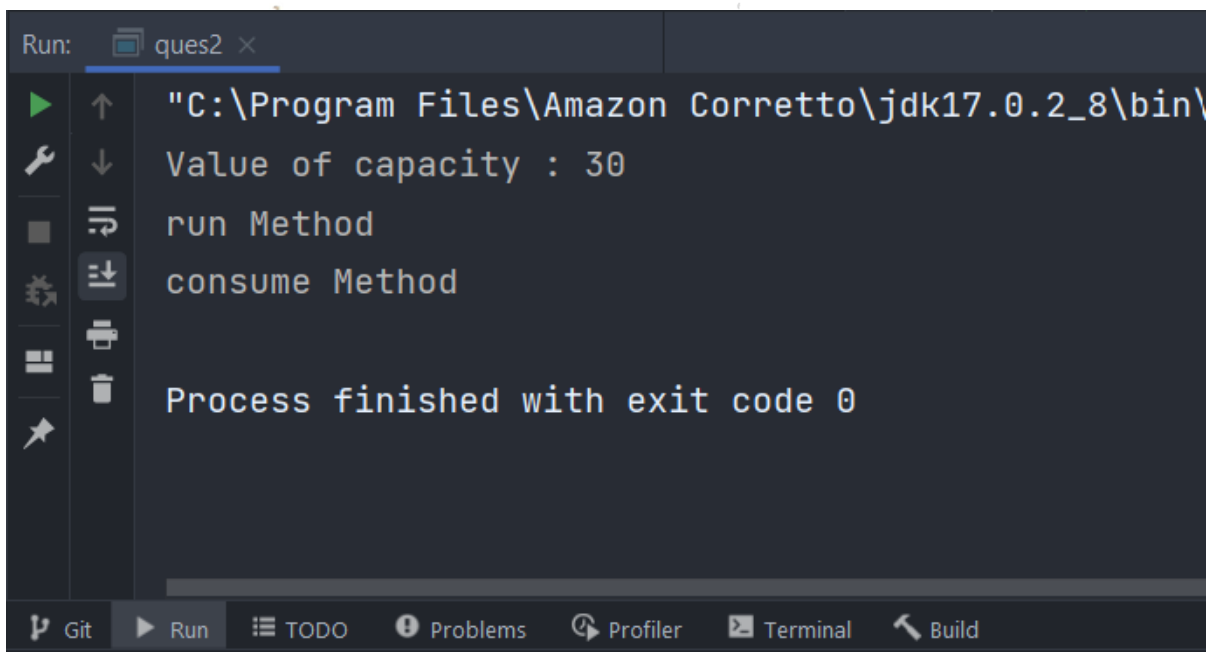
```
        System.out.println("Value of Capacity: " + ob.capacity);
```

```
        ob.run();
```

```
        ob.consume();
```

```
    }
```

```
}
```



```
Run: ques2 x
"C:\Program Files\Amazon Corretto\jdk17.0.2_8\bin\
Value of capacity : 30
run Method
consume Method
Process finished with exit code 0
```

Git Run TODO Problems Profiler Terminal Build

Ques 3

```
interface interf
```

```
{
```

```
    int n = 10;
```

```
    void disp();
```

```
}
```

```
class student implements interf
```

```
{
```

```
    public void disp()
```

```
    {
```

```
        System.out.println(n);
```

```
    }
```

```
    public static void main(String[] args)
```

```
    {
```

```
        Student obj = new student();
```

```
        obj.disp();
```

```
        n = 10;
```

```
        obj.disp();
```

```
    }
```

```
}
```

```
E:\4th Sem\Web Tech Lab\Java Lab\Lab 7\src\student.java:16:9  
java: cannot assign a value to final variable x
```

16:9 CRLF

Ques 4

```
interface Inter  
{  
    void disp();  
}  
  
class Student1 implements Inter  
{  
    public void disp()  
    {  
        System.out.println("Interface Method");  
    }  
    void nonInterfaceMethod()  
    {  
        System.out.println("Non-Interface Method");  
    }  
}
```

```
public class ques4
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

```
        student1 obj = new student1();
```

```
        System.out.println("Student object");
```

```
        obj.disp();
```

```
        obj.nonInterfaceMethod();
```

```
        inter ref;
```

```
        ref = obj;
```

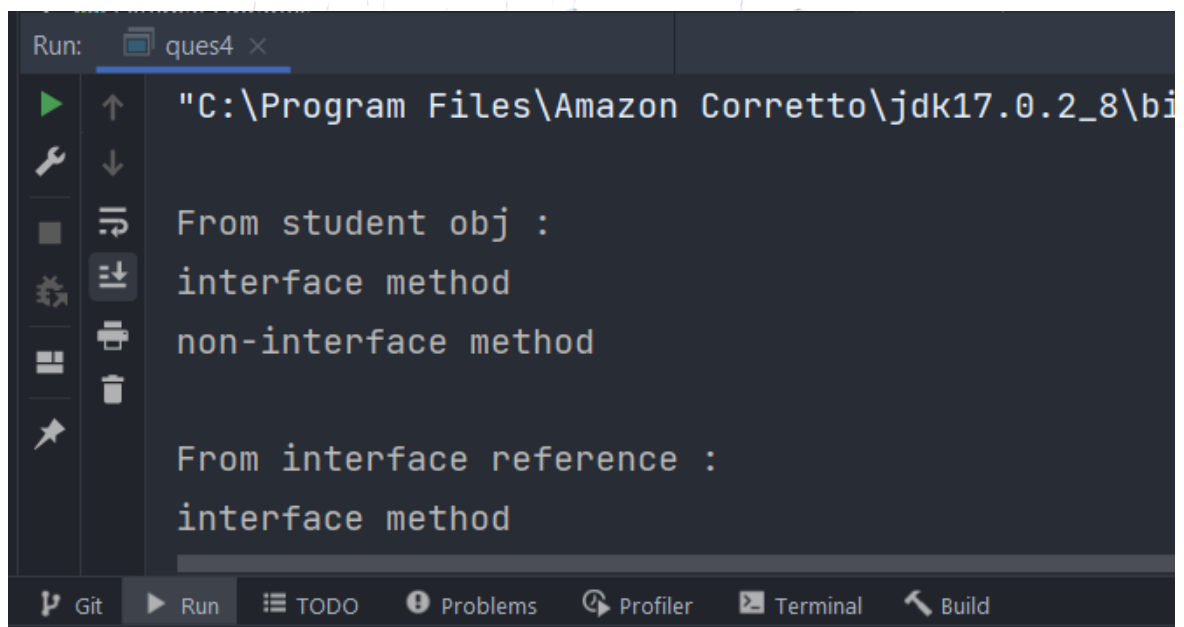
```
        System.out.println("Interface Reference");
```

```
        ref.disp();
```

```
        ref.nonInterfaceMethod();
```

```
    }
```

```
}
```



The screenshot shows a terminal window titled "Run: ques4 x" with the following output:

```
"C:\Program Files\Amazon Corretto\jdk17.0.2_8\bin"
From student obj :
interface method
non-interface method

From interface reference :
interface method
```

The IDE interface at the bottom includes tabs for Git, Run, TODO, Problems, Profiler, Terminal, and Build.

Ques 5

interface A

{

void math1();

void math2();

}

interface B extends A

{

void math3();

}

class Student2 implements B

{

public void math1()

{

System.out.println("Math1");

}

public void math2()

{

System.out.println("Math2");

}

public void math3()

{

System.out.println("Math3"); }

}

public class ques5

{

public static void main (String[] args)

{

Student2 obj = new Student2();

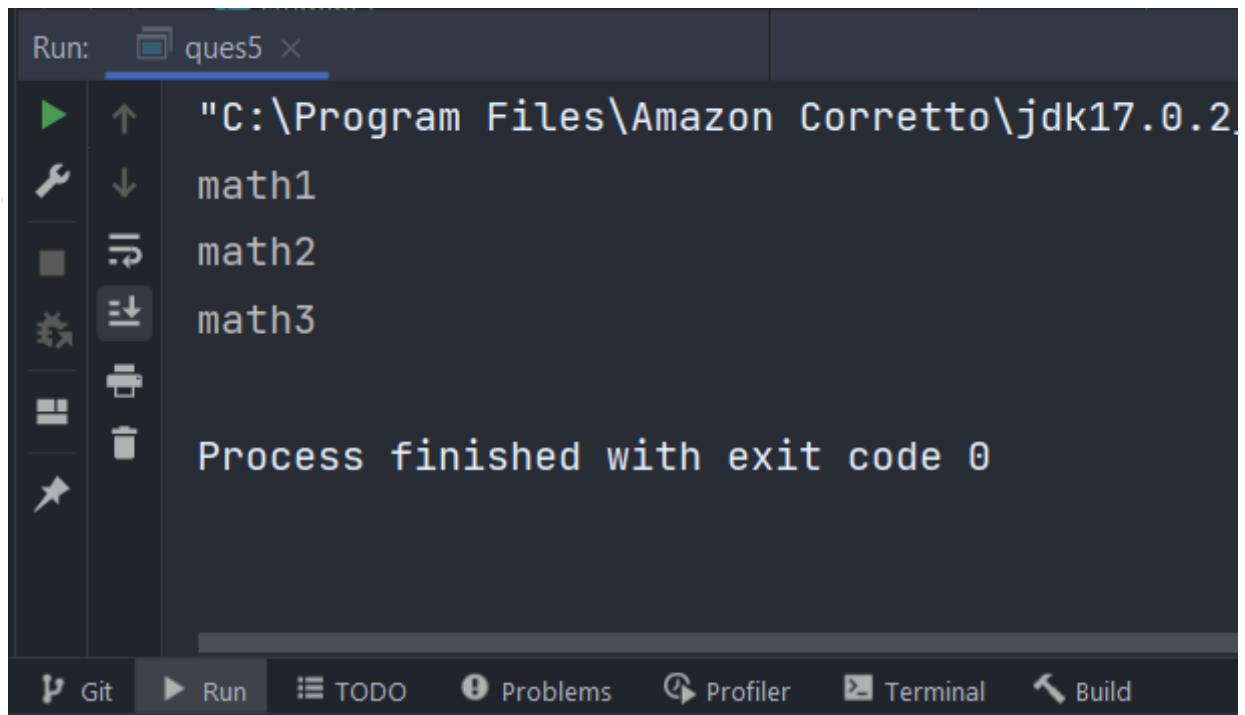
obj.math1();

obj.math2();

obj.math3();

}

}



```
Run: ques5 x
"C:\Program Files\Amazon Corretto\jdk17.0.2\
ques5
math1
math2
math3
Process finished with exit code 0
```

The screenshot shows the bottom panel of an IDE with the 'Run' tab selected. The console output is as follows:

```
Run: ques5 x
"C:\Program Files\Amazon Corretto\jdk17.0.2\
ques5
math1
math2
math3
Process finished with exit code 0
```

The IDE's status bar at the bottom includes icons and labels for Git, Run, TODO, Problems, Profiler, Terminal, and Build.

Ques 6

```
interface Inter
```

```
{
```

```
    void disp();
```

```
}
```

```
class shape
```

```
{
```

```
    void display()
```

```
{
```

```
        System.out.println("Display function of shapeClass");
```

```
}
```

```
}
```

```
public class ques6 extends shape implements Inter
```

```
{
```

```
    public void disp()
```

```
{
```

```
        System.out.println("Display function of Interface  
class");
```

```
}
```

```
public static void main(String[] args)
```

```
{
```

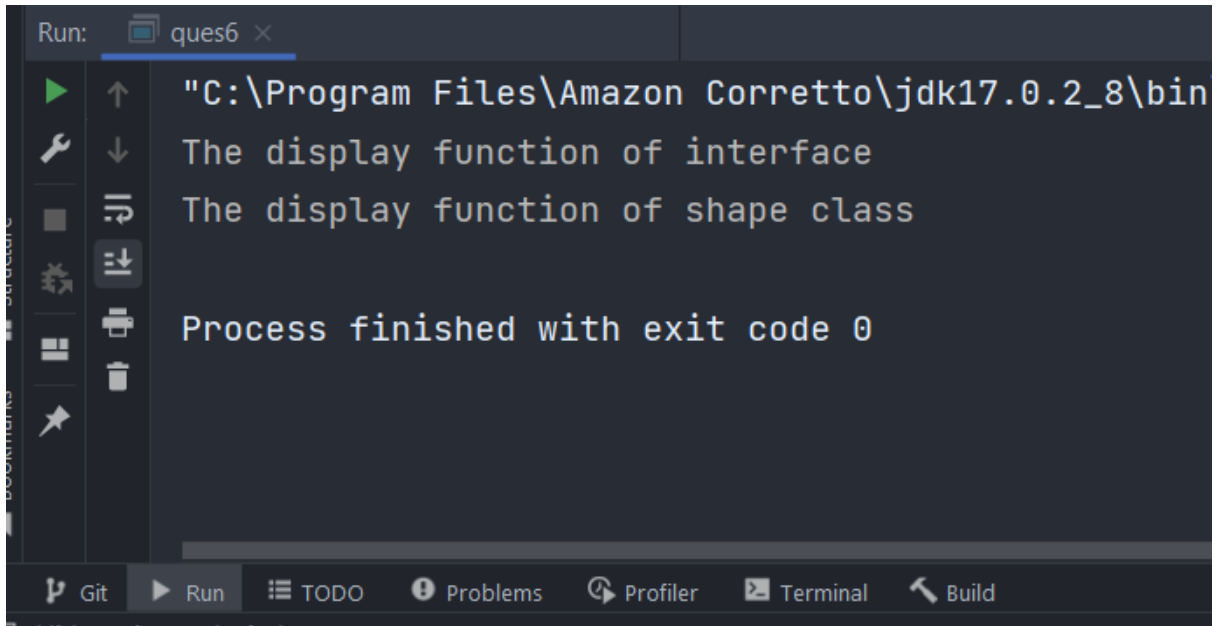
```
    ques6 obj = new ques6();
```

obj.display();

obj.display();

}

}



```
Run: ques6 x
"C:\Program Files\Amazon Corretto\jdk17.0.2_8\bin
The display function of interface
The display function of shape class

Process finished with exit code 0
```

The screenshot shows the Run console of an IDE. The top bar indicates the current run configuration is 'ques6'. The console output shows the Java runtime path, followed by the output of the 'display' function for an interface and then for a shape class. The process concludes with the message 'Process finished with exit code 0'. The IDE's bottom toolbar is visible, showing buttons for Git, Run, TODO, Problems, Profiler, Terminal, and Build.