

**Don Bosco Institute of Technology,**  
**Kurla Academic Year 2023-24**  
**EXPERIMENT NO. 5**

**SEMESTER:III**

**DATE OF PERFORMANCE: 16/08/2023**

**SUBJECT:** Skill based Lab Course: Object Oriented Programming with Java

**DATE OF SUBMISSION: 17/08/2023**

**NAME OF THE STUDENT: bhanudas Patil**

**ROLL NO.: 40**

<b>AIM</b>	Complete the following: Create a package named org.calculator Create two classes in the package as 1.Arithmetic class containing methods add, subtract, multiply and divide 2.CalcPower class containing methods square and cube. Finally compile the package and use it in a Demo class.
<b>LEARNING OBJECTIVE</b>	Create a program using a user defined package.
<b>LEARNING OUTCOME</b>	The student will be able to write a program with input and output
<b>COURSE OUTCOME</b>	Students will be able to explain the various Java constructs and will be able to compare classes, objects, packages, arrays and strings.
<b>PROGRAM OUTCOME</b>	PO1,PO2,PO3,PO4,PO5,PO9,PO10,PSO1,PSO2,PSO3.
<b>BLOOM'S TAXONOMY LEVEL</b>	
<b>THEORY</b>	
<b>LAB EXERCISE</b>	<ul style="list-style-type: none"><li>• Every student will execute the Program as per the instruction and attach output as per the requirements.</li></ul> <p><b>Append all snapshots here.</b></p> <p><b>*Note: correct the program before execution.</b></p> <p><b>*Note: Procedure to run java program</b></p> <p><b>To Compile: javac -d . Simple.java</b></p> <p><b>To Run: java mypack.Simple</b></p>

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```
package org.calculator;

public class arithmetic{

    public static int add(int op1,int op2)
    { return op1+op2;
    }
    public int sub(int op1, int op2)
    { return op1-op2;
    }
    public int mul(int op1,int op2)
    { return op1*op2;
    }
    public int div(int op1,int op2)
    { return op1*op2;
    }
}
```

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```
package org.calculator;
public class
calpower{ public int
square(int op1){ return
op1*op1;
}
public int cube(int op1){
return op1*op1*op1;
}
}

import org.calculator.arithmetic;
import org.calculator.calsquare;
import java.util.Scanner;

class demo
{
static int p1,p2;
public static void main(String[] args)
{ Scanner sc=new Scanner(System.in);
System.out.println("1.Addition 2.Sub 3.Mul 4.Div
5.Square 6.cube">
System.out.println("Enter you choice");
int
ch=sc.nextInt();
switch(ch){ case
1:
System.out.println("Enter any two nos:");
p1=sc.nextInt(); p2=sc.nextInt();
System.out.println(arithmetic.add(p1,p2));
```

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	<b>Break;</b>
--	---------------

	<div style="border-bottom: 1px dashed black; height: 10px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 10px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 10px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 10px; margin-bottom: 5px;"></div> <div><b>default:</b> <b>System.out.println("Invalid no");</b> <b>}</b> <b>}</b> <b>}</b></div>
--	---

**CODE:**

```
import orgcalculator.arithmetics;
import orgcalculator.calpower;
import java.util.Scanner;
class a
{
    static int p1,p2;
    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("1.Addition\n2.Sub\
n3.Mul\n4.Div\n5.Square\n6.cube");
        System.out.println("Enter you choice");
        int ch=sc.nextInt();
        switch(ch)
```

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```
{
    case 1:
        System.out.println("Enter any two
nos:");
        p1=sc.nextInt();
        p2=sc.nextInt();

        System.out.println(arithmetics.add(p1,p2));
        break;
    case 2:
        System.out.println("Enter any two
nos:");
        p1=sc.nextInt();
        p2=sc.nextInt();

        System.out.println(arithmetics.sub(p1,p2));
        break;
    case 3:
        System.out.println("Enter any two
nos:");
        p1=sc.nextInt();
        p2=sc.nextInt();

        System.out.println(arithmetics.mul(p1,p2));
        break;
    case 4:
        System.out.println("Enter any two
nos:");
        p1=sc.nextInt();
        p2=sc.nextInt();

        System.out.println(arithmetics.div(p1,p2));
        break;
    case 5:
        System.out.println("Enter any nos:");
        p1=sc.nextInt();
```

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```
        System.out.println(calpower.square(p1));
            break;
        case 6:
            System.out.println("Enter any nos:");
            p1=sc.nextInt();

        System.out.println(calpower.cube(p1));
            break;
        default:
            System.out.println("Invalid input");
            break;
    }
}
```

-----

```
package orgcalculator;
public class arithmetics
{
    public static int add(int p1,int p2)
    {
        return p1+p2;
    }
    public static int sub(int p1, int p2)
    {
        return p1-p2;
    }
    public static int mul(int p1,int p2)
    {
        return p1*p2;
    }
    public static int div(int p1,int p2)
    {
```

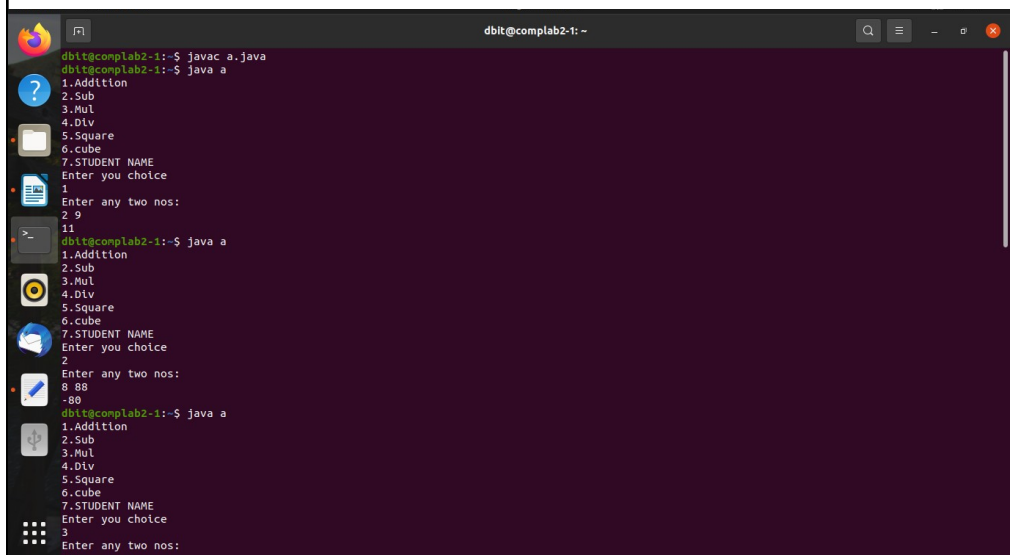
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```
        return p1/p2;
    }
}

-----

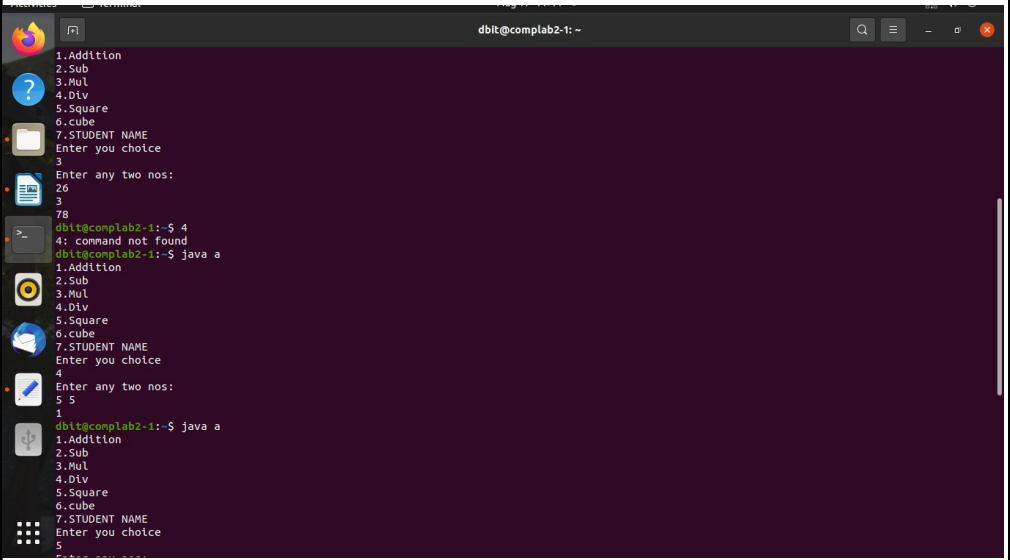
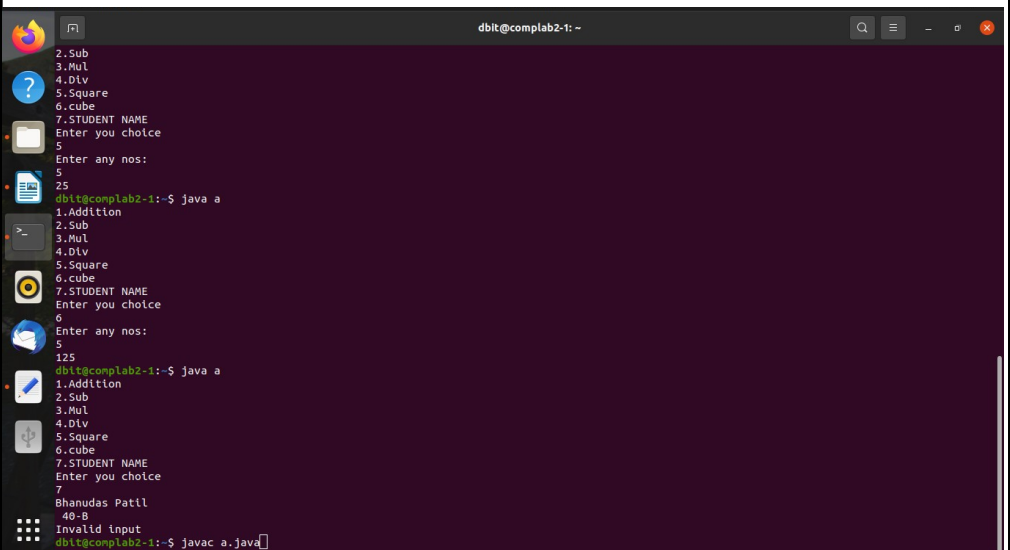
package orgcalculator;
public class calpower
{
    public static int square(int op1)
    {
        return op1*op1;
    }
    public static int cube(int op1)
    {
        return op1*op1*op1;
    }
}
```

## OUTPUT:



```
dbit@comlab2-1:~$ javac a.java
dbit@comlab2-1:~$ java a
1.Addition
2.Sub
3.Mul
4.Div
5.Square
6.cube
7.STUDENT NAME
Enter you choice
1
Enter any two nos:
2 9
11
dbit@comlab2-1:~$ java a
1.Addition
2.Sub
3.Mul
4.Div
5.Square
6.cube
7.STUDENT NAME
Enter you choice
2
Enter any two nos:
0 88
-88
dbit@comlab2-1:~$ java a
1.Addition
2.Sub
3.Mul
4.Div
5.Square
6.cube
7.STUDENT NAME
Enter you choice
3
Enter any two nos:
~^
```

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REFERENCES	<ol style="list-style-type: none"><li>1.<a href="https://www.javatpoint.com/java-oops-concepts">https://www.javatpoint.com/java-oops-concepts</a></li><li>2.<a href="https://www.geeksforgeeks.org/object-oriented-programming-oops-concept-in-java/">https://www.geeksforgeeks.org/object-oriented-programming-oops-concept-in-java/</a></li><li>3.<a href="https://www.javatpoint.com/java-oops-concepts">https://www.javatpoint.com/java-oops-concepts</a></li></ol>