WEEK 4 JAVA LAB

Name: Oviyadarshini.s
Reg no: 23bce1066

```
student@student: ~/Desktop
File  Edit  View  Search  Terminal  Help
student@student:~$ cd Desktop
student@student:~/Desktop$ javac ex3.java
student@student:~/Desktop$ java ex3
Dharma
Keshika
Sanvi
Rupa
Ajay
student@student:~/Desktop$ ▮
```

1.
```java
class Student{
public String name;
Student(String name){
this.name=name;
}
public String toString(){
return name;
}
}
public class ex3{
public static void main(String[] args){
Student[] myStudents=new Student[]{
new Student("Dharma"), new Student("Keshika"),new Student("Sanvi"),new Student("Rupa"),new Student("Ajay")
};
for(Student m:myStudents){
System.out.println(m);
}
}
}
```

2.
```java
public class Theory{
public static void main(String[] args){
int[] arr=new int[4];
arr[0]=10;
arr[1]=11;
arr[2]=13;
arr[3]=14;
```

```
student@student:~/Desktop$ javac ex3.java
student@student:~/Desktop$ java ex3
arr[0][0]=1
```

```
System.out.println("Trying to access
element outside the size of array");
System.out.println(arr[5]);
}
```

}

```
PS C:\Users\nivit\desktop> javac Theory.java
PS C:\Users\nivit\desktop> java Theory
Trying to access element outside the size of array
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index 5 out of bounds for length 4
        at Theory.main(Theory.java:10)
PS C:\Users\nivit\desktop>
```

3.
```java
public class ex3{
public static void main(String[] args){
int[][][arr=new int[10][20];
arr[0][0]=1;
System.out.println("arr[0][0]="+arr[0][0]);
}
}
```

4.
```java
public class Theory{
public static void main(String[] args){
int[][][] arr=new int[10][20][30];
arr[0][0][0]=1;
System.out.println("arr[0][0][0]="+arr[0][0][0]);
}
}
```

```
PS C:\Users\nivit\desktop> java Theory
arr[0][0][0]=1
PS C:\Users\nivit\desktop>
```

5.
```java
public class ex3{
public static void main(String args[]){
int arr[]={3,1,2,5,4};
sum(arr);
}
public static void sum(int[] arr){
int sum=0;
for(int i=0;i<arr.length;i++)
sum+=arr[i];
System.out.println("sum of array values:"+sum);
```

```
student@student:~/Desktop$ javac ex3.java
student@student:~/Desktop$ java ex3
false
1
2
3
```

}
}

6.

public class ex3{

public static void main(String args[]){
int arr[]=m1();
for(int i=0;i<arr.length;i++)
System.out.println(arr[i]+" ");
}
public static int[] m1(){
return new int[]{1,2,3};
}
}

7.
public class Theory{
public static void main(String args[]){
int intArr[]=new int[3];
byte byteArray[]=new byte[3];
short shortsArray[]=new short[3];
String[] strArray= new String[3];
System.out.println(intArr.getClass());
System.out.println(intArr.getClass().getSuperclass());
System.out.println(byteArray.getClass());
System.out.println(shortsArray.getClass());
System.out.println(strArray.getClass());
}
}

```
PS C:\Users\nivit\desktop> javac Theory.java
PS C:\Users\nivit\desktop> java Theory
class [I
class java.lang.Object
class [B
class [S
class [Ljava.lang.String;
PS C:\Users\nivit\desktop>
```

student@student:~/Desktop$ javac ex3.java
student@student:~/Desktop$ java ex3
false
true
true

8.
```
class ex3{
public static void main(String args[]){
int intArray[][]={{1,2,3},{4,5}};
int cloneArray[][]=intArray.clone();
```

```
System.out.println(intArray==cloneArray);
System.out.println(intArray[0]==cloneArray[0]);
System.out.println(intArray[1]==cloneArray[1]);
}
}
```

Day 2:

1.
```
public class Main{
int x=5;
public static void main(String[] args){
Main myObj=new Main();
System.out.println(myObj.x);
}
}
```

```
student@student:~$ cd Desktop
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ java Main
5
```

2.
```
public class Main{
int x=5;
public static void main(String[] args){
Main myObj1=new Main();
Main myObj2=new Main();
System.out.println(myObj1.x);
System.out.println(myObj2.x);
}
}
```

```
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ javac Second.java
student@student:~/Desktop$ java Second
5
student@student:~/Desktop$
```

3.
```
public class Main{
int x=5;
```

```
}
class Second{
public static void main(String[] args){
Main myObj=new Main();
System.out.println(myObj.x);
}
```

}

```
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ javac Second.java
student@student:~/Desktop$ java Second
5
student@student:~/Desktop$
```

4.
```
public class Main{
int x;
public static void main(String[] args){
Main myObj=new Main();
myObj.x=40;
System.out.println(myObj.x);
}
}
```

```
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ java Main
40
student@student:~/Desktop$
```

5.
```
public class Main{
int x=10;
public static void main(String[] args){
Main myObj=new Main();
myObj.x=25;
System.out.println(myObj.x);
}
}
```

```
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ java Main
25
student@student:~/Desktop$
```

6.
```
public class Main{
final x=10;
```

```java
public static void main(String[] args){
Main myObj=new Main();
myObj.x=25;
System.out.println(myObj.x);
}
}
```

```
student@student:~/Desktop$ javac Main.java
Main.java:2: error: <identifier> expected
final x=10;
        ^
1 error
student@student:~/Desktop$
```

7.
```java
public class Main{
int x=5;
public static void main(String[] args){
Main myObj1=new Main();
Main myObj2=new Main();
myObj2.x=25;
System.out.println(myObj1.x);
System.out.println(myObj2.x);
}
}
```

```
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ java Main
5
25
student@student:~/Desktop$
```

8.
```java
public class Main{
String fname="John";
String lname="Doe";
int age=24;
public static void main(String[] args){
Main myObj=new Main();
System.out.println("Name:"+myObj.fname+" "+myObj.lname);
System.out.println("Age:"+myObj.age);
}
```

```
}
```

9.
```
public class Main{
static void myMethod(){
System.out.println("Hello World!");
}
public static void main(String[] args){
myMethod();
}
}
```

10.
```
public class Main{
static void myStaticMethod(){
System.out.println("Static method can be called without creating objects");
}
public static void myPublicMethod(){
System.out.println("Public method must be called by creating objects");
}
public static void main(String[] args){
myStaticMethod();
Main myObj=new Main();
myObj.myPublicMethod();
}
}
```

11.
```
public class Main{
```

```java
public void fullThrottle(){
System.out.println("The car is going as fast it can!");
}
public void speed(int maxSpeed){
System.out.println("Max speed is:"+maxSpeed);
}
public static void main(String[] args){
Main myCar=new Main();
myCar.fullThrottle();
myCar.speed(200);
}
}
```

```
Public method must be called by creating objects
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ java Main
The car is going as fast it can!
Max speed is:200
student@student:~/Desktop$
```

12.
```java
public class Main{
int x;
public Main(){
x=5;
}
public static void main(String[] args){
Main myObj=new Main();
System.out.println(myObj.x);
}
}
```

```
Max speed is:200
student@student:~/Desktop$ javac Main.java
student@student:~/Desktop$ java Main
5
student@student:~/Desktop$
```