Date: 21-04-23

Experiment - 3.1

Aim:

Initialize an integer array with ASCII values and print the corresponding character values in a single line.

Code:

```
public class Main{
        public static void main(String[] args) {
           int arrI[] = new int[5];
           char arrO[] = new char[5];

           arrI[0] = 68;
           arrI[1] = 73;
           arrI[2] = 75;
           arrI[3] = 76;
           arrI[4] = 82;

           for(int i=0; i<5; i++){
              char b = (char)arrI[i];
              arrO[i] = b;
           }

           for(int i=0; i<5; i++){
              System.out.print(arrI[i] + " -> ");
              System.out.print(arrO[i] + "  ");
           }
        }
}
```

Output:

```
68 -> D  73 -> I  75 -> K  76 -> L  82 -> R
```

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Experiment - 3.2

Aim:

Write a program to reverse the elements of a given 2*2 array. Four integer numbers need to be passed as Command line arguments.

Code:

```
public class ABC{
	public static void main(String[] args) {
		for(int i=0; i<args.length; i+=2){
			String temp = args[i];
			args[i] = args[i+1];
			args[i+1] = temp;
		}
		for(int i=0; i<args.length; i++){
			System.out.print(args[i] + " ");
		}
	}
}
```

Output:

```
PS C:\Users\ankus\OneDrive\Desktop> javac ABC.java
PS C:\Users\ankus\OneDrive\Desktop> java ABC 1 2 3 4
2 1 4 3
```

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Experiment - 3.3

Aim:

Write a java program to produce the tokens from given long string.

Code:

```
public class ABC{
	public static void main(String[] args) {
		System.out.println("Produced tokens are -");
		for(int i=0; i<args.length; i++){
			System.out.println(args[i]);
		}
	}
}
```

Output:

```
PS C:\Users\ankus\OneDrive\Desktop> javac ABC.java
PS C:\Users\ankus\OneDrive\Desktop> java ABC I am currently learning programming in java
Produced tokens are -
I
am
currently
learning
programming
in
java
```

Date: 21-04-23

Experiment - 3.4

Aim:

Using the concept of method overloading write method for calculating the area of triangle, circle and rectangle.

Code:

```
public class Main
{
   public static void main(String[] args) {
      System.out.println("Area of Triangle: " + calculateArea(10.0, 5.0));
      System.out.println("Area of Circle: " + calculateArea(5));
      System.out.println("Area of Rectangle: " + calculateArea(10, 5));
   }

   public static double calculateArea(double base, double height) {
      return 0.5 * base * height;
   }

   public static double calculateArea(double radius) {
      return 3.14 * radius * radius;
   }

   public static double calculateArea(int length, int width) {
      return length * width;
   }
}
```

Output:

```
Area of Triangle: 25.0
Area of Circle: 78.5
Area of Rectangle: 50.0
```