JAVA FUNDAMENTALS:

LANGUAGE BASICS

1).Write a program to accepts two strings as command line arguments and generate the output in the required format.

```
public class Stringformat {
    public static void main(String []args){
        System.out.println(args[0]+" Technologies "+args[1]);
    }
}
```

```
PS D:\Wipro\Languagebasics> javac Stringformat.java
PS D:\Wipro\Languagebasics> java Stringformat Wipro Bangalore
Wipro Technologies Bangalore
PS D:\Wipro\Languagebasics>
```

2) Write a program to accepts strings as command line arguments and print welcome message.

```
public class Welcome {
    public static void main(String[] args) {
        System.out.println("Welcome "+args[0]);
    }
}
```

```
PS D:\Wipro\Languagebasics> java Welcome Chethan
Welcome Chethan
PS D:\Wipro\Languagebasics>
```

3) Write a program to accepts strings as command line arguments and print sum of two numbers.

Program:

```
public class Sumofnum {
        public static void main(String []args){
        if(args.length==2){
        int sum=Integer.parseInt(args[0])+Integer.parseInt(args[1]);
System.out.println("The sum of "+args[0]+" and "+args[1]+" is "+sum);
        }
}

}
```

OUTPUT:

```
PS D:\Wipro\Languagebasics> javac Sumofnum.java
PS D:\Wipro\Languagebasics> java Sumofnum 10 20
The sum of 10 and 20 is 30
PS D:\Wipro\Languagebasics>
```

Flow control statements:

1a) .

A) Write a program to check if a given integer number is Positive, Negative, or Zero.

Program:

```
import java.util.Scanner;
public class prgm1a {
public static void main(String []args) {
	int a;
	System.out.println("Enter a number");
	Scanner sc=new Scanner(System.in);
	a=sc.nextInt();
	if(a>=1){
		System.out.println("The given number is positive");
	}
	else if(a==0){
		System.out.println("The given number is zero");
	}
	else
		System.out.println("The given number is negative ");
	}
}
```

Output:

```
PS D:\Wipro\flow control statements> java prgm1a
Enter a number
-8293
The given number is negative
PS D:\Wipro\flow control statements> java prgm1a
Enter a number
0
The given number is zero
PS D:\Wipro\flow control statements> java prgm1a
Enter a number
342
The given number is positive
PS D:\Wipro\flow control statements>
```

1b).

Program:

```
import java.util.*;
public class prgm1b {
 public static void main(String[] args) {
  Scanner sc=new Scanner(System.in);
```

```
 System.out.println("Enter two numbers to check whether they have the same last digit");
 int a=sc.nextInt();
 int b=sc.nextInt();
 if(a%10==b%10){
  System.out.println("True");
 }
 else
  System.out.println("False");
 }
}
```

Output:

```
PS D:\Wipro\flow control statements> java prgm1b
Enter two numbers to check whether they have the same last digit
27 157
True
PS D:\Wipro\flow control statements>
```

2.

Program:

```
import java.util.*;
public class prgm2 {
        public static void main(String[] args) {
                Scanner sc=new Scanner(System.in);
                System.out.println("Enter a number to check whether a given number is even or odd");
                int num=sc.nextInt();
                if(num%2==0){
                        System.out.println("The given number "+num+" is even number");
                }
                else
                        System.out.println("The given number"+num+" is odd number");
        }
}
```

Output:

```
PS D:\Wipro\flow control statements> java prgm2
Enter a number to check whether a given number is even or odd
45
The given number45 is odd number
PS D:\Wipro\flow control statements> java prgm2
Enter a number to check whether a given number is even or odd
56
The given number 56 is even number
PS D:\Wipro\flow control statements>
```

3.

Program:

```
public class Receivecmnd {
```

```
    public static void main(String []args){
        if(args.length<=0){
            System.out.println("No values");
        }
        else{
            for(int i=0;i<args.length;i++){
                System.out.print(args[i]+" ");
            }
        }
    }
}
```

```
PS D:\Wipro\flow control statements> javac Receivecmnd.java
PS D:\Wipro\flow control statements> java Receivecmnd
No values
PS D:\Wipro\flow control statements> java Receivecmnd Mumbai Bangalore
Mumbai Bangalore
PS D:\Wipro\flow control statements>
```

4	S	Initialize two character variables in a program and display the characters in alphabetical order. Example1) if the first character is 's' and second character is 'e' then the output should be e,s

```
public class Alphabetic {
    public static void main(String[] args) {
        char c1='s';
        char c2='e';
        int a=(int)c1;
        int b=(int)c2;
        if(a>b){
            System.out.println(c2+" "+c1);
        }
        else{
             System.out.println(c1+" "+c2);
        }
    }

}
```

```
e s
PS C:\Users\ASUS\Documents\Unicourt>
```

5 M

Initialize a character variable in a program and

print 'Alphabhet' if the initialized value is an alphabhet,

print 'Digit' if the initialized value is a number, and

print 'Special Character', if the initialized value is anything else.

```java
import java.util.Scanner;
public class prgm5 {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter character or digit or special
character");
        char c=sc.next().charAt(0);
        if(Character.isAlphabetic(c)){
        System.out.println("It is a alphabet");
        }
        else if(Character.isDigit(c)){
             System.out.println("It is a digit");
        }
        else
             System.out.println("It is a special character");
    }

}
```

```
Enter character or digit or special character
f
It is a alphabet
```

6	S	Write a program to accept gender ("Male" or "Female") and age from command line arguments and print the percentage of interest based on the given conditions. If the gender is 'Female' and age is between 1 and 58, the percentage of interest is 8.2%. If the gender is 'Female' and age is between 59 and 100, the percentage of interest is 9.2%. If the gender is 'Male' and age is between 1 and 58, the percentage of interest is 8.4%. If the gender is 'Male' and age is between 59 and 100, the percentage of interest is 10.5%.

```
public class Genderandage {
	public static void main(String []args){
		String gender=args[0].toLowerCase();
		int age=Integer.parseInt(args[1]);
		if(gender.equals("female")&&(age>=1 && age<58)){
			System.out.println("The percentage of interest is 8.2%");
		}
		else if(gender.equals("female")&&(age>=59 && age<100)){
			System.out.println("The percentage of interest is 8.2%");
		}
		else if(gender.equals("male")&&(age>=1 && age<58)){
			System.out.println("The percentage of interest is 8.4%");
		}
		else if(gender.equals("male")&&(age>=59 && age<100)){
		System.out.println("The percentage of interest is 10.5%");
		}
	}
}
```

```
PS D:\Wipro\flow control statements> java Genderandage male 45
The percentage of interest is 8.4%
PS D:\Wipro\flow control statements>
```

7	S	Initialize a character variable with an alphabhet in a program. If the character value is in lowercase, the output should be displayed in uppercase in the following format. Example1) i/p:a o/p:a->A If the character value is in uppercase, the output should be displayed in lowercase in the following format.

```
import java.util.Scanner;
```

```java
public class prgm7 {
	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in);
		char s=sc.next().charAt(0);
		if(Character.isUpperCase(s)){
			System.out.println(Character.toLowerCase(s));
		}
		else{
		System.out.println(Character.toUpperCase(s));
		}
	}
}
```

```
t
T
PS D:\Wipro\flow control statements\Alphabetic\src\main\java>
```

8 M

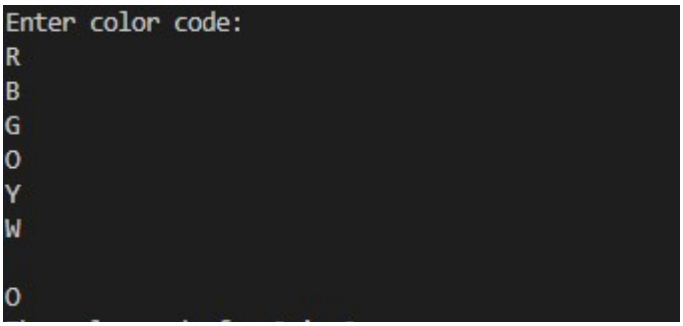
Write a program to receive a color code from the user (an Alphabhet).

The program should then print the color name, based on the color code given.

The following are the color codes and their corresponding color names.
R->Red, B->Blue, G->Green, O->Orange, Y->Yellow, W->White.

If color code provided by the user is not valid then print "Invalid Code".

```java
import java.util.Scanner;
public class Colorcode {
	public static void main(String[] args) {
	Scanner sc=new Scanner(System.in);
	System.out.println("Enter color code:\nR\nB\nG\nO\nY\nW\n");
	char s=sc.nextLine().charAt(0);
	switch(s){
		case 'R':System.out.println("The color code for R is Red");
				break;
		case 'B':System.out.println("The color code for B is Blue");
				break;
		case 'G':System.out.println("The color code for G is Green");
				break;
		case 'O':System.out.println("The color code for O is Orange");
				break;
		case 'Y':System.out.println("The color code for Y is Yellow");
				break;
		case 'W':System.out.println("The color code for W is White");
				break;
		default:System.out.println("Invalid code");
		}
	}
}
```



9.

> Write a program to receive a number and print the corresponding month name.

```
public class Month{
	public static void main(String []args){
	if(args.length==0){
		System.out.println("Please enter months in number");
	}
	else{
		int ch = Integer.parseInt(args[0]);
		switch(ch){
			case 1:System.out.println("January");
				break;
			case 2:System.out.println("February");
				break;
			case 3:System.out.println("March");
				break;
			case 4:System.out.println("April");
				break;
			case 5:System.out.println("May");
				break;
			case 6:System.out.println("June");
				break;
			case 7:System.out.println("July");
				break;
			case 8:System.out.println("August");
				break;
			case 9:System.out.println("September");
				break;
			case 10:System.out.println("October");
				break;
			case 11:System.out.println("November");
				break;
			case 12:System.out.println("December");
				break;
			default:System.out.println("Invalid month");
				}
		}
	}
}
```

```
PS D:\Wipro\flow control statements> javac Month.java
PS D:\Wipro\flow control statements> java Month
Please enter months in number
PS D:\Wipro\flow control statements> java Month 21
Invalid month
PS D:\Wipro\flow control statements> java Month 12
December
```

10	S	Write a program to print numbers from 1 to 10 in a single row with one tab space.

```java
public class Prgm10 {
    public static void main(String[] args) {
        for(int i=1;i<=10;i++){
            System.out.print(i+"    ");
        }
    }
}
```

```
1    2    3    4    5    6    7    8    9    10
PS C:\Users\ASUS>
```

11	M	Write a program to print even numbers between 23 and 57. Each number should be printed in a separate row.

```java
public class Prgm11 {
    public static void main(String[] args) {
        System.out.println("The even numbers between 23 and 57 are:");
        for(int i=23;i<=57;i++){
            if(i%2==0){
                System.out.println(i);
            }
        }
    }
}
```

```
The even numbers between 23 and 57 are:
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
54
56
```

12 M Write a program to check if a given number is prime or not.

```java
import java.util.Scanner;
public class Prime {
    public static void main(String []args){
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter a number to check it is a prime or not");
        int n=sc.nextInt();
        int count=0;
        for(int i=2;i<n/2;i++){
            if(n%i==0){
                count++;
                System.out.println(n+" is not a prime number");
                break;
           }
        }
        if(count==0){
            System.out.println(n+" is a prime number");
        }
    }
}
```

```
Enter a number to check it is a prime or not
35
35 is not a prime number
PS D:\Wipro\flow control statements> java Prime
Enter a number to check it is a prime or not
19
19 is a prime number
```

13	S	Write a program to print prime numbers between 10 and 99.

```java
public class Prgm13 {
    public static void main(String[] args) {
        System.out.println("The prime numbers between 10 and 99 are:");
        for(int i=10;i<=99;i++){
            if(i%2!=0&&i%3!=0&&i%5!=0&&i%7!=0){
                System.out.println(i);
            }
        }
    }
}
```

```
The prime numbers between 10 and 99 are:
11
13
59
61
67
71
73
79
83
89
97
PS C:\Users\ASUS>
```

14	M	Write a program to print the sum of all the digits of a given number. Example1) I/P:1234 O/P:10

```java
package p1;
```

```java
import java.util.*;
public class Prgm14 {
    public static void main(String[] args) {
        System.out.println("Enter a number");
        Scanner sc=new Scanner(System.in);
        int a=sc.nextInt();
        int[] ab;
        int sum=0,rem;
        while(a!=0){
            rem=a%10;
            sum=sum+rem;
            a=a/10;
       }
       System.out.println("The sum is: "+sum);
   }
}
```

```
Enter a number
12376540
The sum is: 28
PS C:\Users\ASUS>
```

15.

```
Write a program to print * in Floyds format (using for and while loop)
*
*  *
*  *  *
```

```java
public class Prgm15 {
    public static void main(String[] args) {
        if(args.length==0){
            System.out.println("Please enter a number");
        }
        else{
            String s="";
            System.out.println("Using for loop");
            int n=Integer.parseInt(args[0]);
            for(int i=0;i<n;i++){
                s=s+" *";
                System.out.println(s);
            }
            System.out.println("Using while loop");
            String s1="";
            int i=0;
            while(n>i){
                s1=s1+" *";
                System.out.println(s1);
                i=i+1;
            }
        }
  }
}
```

```
PS C:\Users\ASUS\Desktop> java Prgm15 5
Using for loop
 *
 * *
 * * *
 * * * *
 * * * * *
Using while  loop
 *
 * *
 * * *
 * * * *
 * * * * *
PS C:\Users\ASUS\Desktop>
```

16 M

Write a program to reverse a given number and print

Example1)
I/P: 1234
O/P:4321

```java
import java.util.Scanner;
public class Reverse {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Please enter a number");
        int num=sc.nextInt();
        int t1=num;
        int rem,temp=0;
        while(num!=0){
            rem=num%10;
            temp=rem+temp*10;
            num=num/10;
        }
        System.out.println("The reverse of a given number"+t1+"is: "+temp);
    }
}
```

```
Please enter a number
40937621
The reverse of a given number40937621is: 12673904
PS C:\Users\ASUS>
```

Write a Java program to find if the given number is palindrome or not

Example1)
C:\>java Sample 110011

```java
import java.util.Scanner;
public class Palindrome {
      public static void main(String[] args){
        System.out.println("Enter a number");
        Scanner sc=new Scanner(System.in);
        int num=sc.nextInt();
        int temp=num;
        int rem;
        int rev=0;
        while(num!=0){
            rem=num%10;
            rev=rem+rev*10;
            num=num/10;
        }
        if(temp==rev){
            System.out.println("It is a palindrome number");
        }
        else{
              System.out.println("It is not a palindrome number");
        }
    }
}
```

```
Enter a number
34561099
It is not a palindrome number
PS C:\Users\ASUS>
```

```
Enter a number
909060909
It is a palindrome number
PS C:\Users\ASUS>
```

Arrays:

1.

Program:

```
package p1;
import java.util.*;
public class Prgm1 {
   public static void main(String[] args) {
      Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
```

```
      System.out.println("Enter a integer array elements:");
      for(int i=0;i<n;i++){
         a[i]=sc.nextInt();
      }
      int sum=0,avg;
      for(int i=0;i<n;i++){
         sum=sum+a[i];
      }
      avg=sum/n;
      System.out.println("Sum is: "+sum+"\nAverage is: "+avg);
   }
}
```

Output:

```
Enter an array size:
5
Enter a integer array elements:
6 5 4 3 1
Sum is: 19
Average is: 3
```

2.

Program:

```
import java.util.Scanner;
public class Prgm2 {
   public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
      System.out.println("Enter a integer array elements:");
      for(int i=0;i<n;i++){
         a[i]=sc.nextInt();
      }
      int max=a[0],min=a[0];
      for(int i=1;i<n;i++){
         if(a[i]>max)
            max=a[i];
         if(a[i]<min)
            min=a[i];
      }
       System.out.println("Maximum element is: "+max+"\nMinimum elemnet is: "+min);
   }
}
```

Output:

```
Enter an array size:
5
Enter a integer array elements:
67 23 10 69 278
Maximum element is: 278
Minimum elemnet is: 10
```

3.

Program:

```
import java.util.Scanner;
public class Prgm3 {
   public static void main(String[] args) {
      Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
      System.out.println("Enter a integer array elements:");
      for(int i=0;i<n;i++){
         a[i]=sc.nextInt();
      }
      System.out.println("Enter the element to search:");
      int s=sc.nextInt();
      int flag=0;
      for(int i=0;i<n;i++){
         if(a[i]==s){
            flag=1;
             System.out.println("Element is found at index:"+i);
         }
      }
      if(flag==0)
         System.out.println("Element is not found "+-1);
   }

}
```

Output:

```
Enter an array size:
5
Enter a integer array elements:
76 34 12 10 37
Enter the element to search:
10
Element is found at index:3
```

```
Enter an array size:
5
Enter a integer array elements:
34 23 18 38 20
Enter the element to search:
10
Element is not found -1
```

4.

Program:

```
import java.util.Scanner;
public class Prgm4 {
   public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
    System.out.println("Enter a Ascii integer elements:(For uppercase letters is 65 to and for lower case letter is 97-122 )");
      for(int i=0;i<n;i++){
         a[i]=sc.nextInt();
      }
      System.out.println("The character value is: ");
      for(int i=0;i<n;i++){
         System.out.println((char)a[i]);
      }
   }
}
```

Output:

```
Enter an array size:
5
Enter a Ascii integer elements:(For uppercase letters is 65 to and for lower case letter is 97-122 )
67 100 78 89 122
The character value is:
C
d
N
Y
z
```

5.

```
import java.util.Scanner;
public class prgm5 {
   public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
      System.out.println("Enter a integer array elements:");
      for(int i=0;i<n;i++){
         a[i]=sc.nextInt();
      }
      int temp;
      for(int i=0;i<n;i++){
         for(int j=i+1;j<n;j++){
            if(a[i]>a[j]){
               temp=a[i];
               a[i]=a[j];
               a[j]=temp;
            }
         }
```

```
    }
    System.out.println("Largest two elements are: "+a[n-1]+" "+a[n-2]+"\nSmallest two elements are: "+a[0]+" "+a[1]);
  }
}
```

Output:

```
Enter an array size:
5
Enter a integer array elements:
67 34 59 23 98
Largest two elements are: 98 67
Smallest two elements are: 23 34
```

6.

```
import java.util.Scanner;
public class Prgm6 {
  public static void main(String[] args) {
     Scanner sc=new Scanner(System.in);
    int[] a;
    System.out.println("Enter an array size:");
    int n=sc.nextInt();
    a=new int[n];
    System.out.println("Enter a integer array elements:");
    for(int i=0;i<n;i++){
      a[i]=sc.nextInt();
    }
    int temp;
    for(int i=0;i<n;i++){
      for(int j=i+1;j<n;j++){
        if(a[i]>a[j]){
          temp=a[i];
          a[i]=a[j];
          a[j]=temp;
        }
      }
    }
    System.out.println("The sorted array is:");
    for(int i=0;i<n;i++){
      System.out.print(a[i]+" ");
    }
  }
```

```
Enter an array size:
6
Enter a integer array elements:
67 34 2 90 43 23
The sorted array is:
2 23 34 43 67 90
```

7.

```
import java.util.Scanner;
public class Prgm7 {
   public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
      System.out.println("Enter a integer array elements with two more repeated values:");
      for(int i=0;i<n;i++){
         a[i]=sc.nextInt();
      }
      int[] temp=new int[n];
      int i=0;
      System.out.println("The entered array elements without repeated values");
      while(i<n){
         for(int j=i+1;j<n;j++){
            if(a[j]==a[i]){
               a[j]=0;
               continue;
            }
         }
         i++;

      }
      for(int k=0;k<n;k++){
         if(a[k]==0){
            continue;
         }
         else{
            System.out.print(a[k]+" ");
         }
      }
   }
}
```

```
Enter an array size:
10
Enter a integer array elements with two more repeated values:
34 23 56 89 1 23 34 10 1 56
The entered array elements without repeated values
34 23 56 89 1 10
```

8.

```
import java.util.Scanner;
public class prgm8 {
   public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
```

```
    a=new int[n];
    System.out.println("Enter a integer array elements:");
    for(int i=0;i<n;i++){
      a[i]=sc.nextInt();
    }
    int sum=0,i=0,j;
    while(i<n){
      if(a[i]==6){
        for(j=i+1;j<n;j++){
          if(j<n&&a[j]==7){
            i=j+1;
            break;
          }
        }
        if(i<n){
        sum=sum+a[i];
        i++;
        }
      }
      else{
        sum=sum+a[i];
        i++;
      }
    }
    System.out.println("Total sum of values without in between 6 and 7: "+sum);
  }
}
```

Output1:

```
Enter an array size:
5
Enter a integer array elements:
3 6 2 7 8
Total sum of values without in between 6 and 7: 11
```

Output2

```
Enter an array size:
6
Enter a integer array elements:
3 7 4 6 3 5
Total sum of values without in between 6 and 7: 28
```

9.

```
import java.util.Scanner;
public class Prgm9 {
   public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
      int[] a;
```

```
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
      System.out.println("Enter a integer array elements:");
      for(int i=0;i<n;i++){
        a[i]=sc.nextInt();
      }
      int t1;
      for(int i=0;i<n;i++){
        if(a[i]==10){
          a[i]=0;
        }
      }
      for(int i=0;i<n;i++){
        if(a[i]==0){
          for(int k=i;k<n-1;k++){
            t1=a[k];
            a[k]=a[k+1];
            a[k+1]=t1;
          }
        }
      }
      System.out.println("The array elements with 10 element is replaced by 0 placed at end of arrary ");
      for(int k=0;k<n;k++){
        System.out.print(a[k]+" ");
      }
    }
}
```

```
Enter an array size:
10
Enter a integer array elements:
10 2 3 10 20
2 10 23 10 10
The array elements with 10 element is replaced by 0 placed at end of arrary
2 3 20 2 23 0 0 0 0 0
```

10.

```
import java.util.Scanner;
public class Prgm10 {
   public static void main(String[] args) {
      Scanner sc=new Scanner(System.in);
      int[] a;
      System.out.println("Enter an array size:");
      int n=sc.nextInt();
      a=new int[n];
      System.out.println("Enter a integer array elements:");
      for(int i=0;i<n;i++){
        a[i]=sc.nextInt();
      }
      int flag=0,c=0;
      System.out.println("The array contains only a 1 or 4 as an elements");
```

```
    for(int i=0;i<n;i++){
      if(a[i]==1||a[i]==4){
         flag=1;
      }
      else{
        System.out.println("False");
        c++;
        break;
      }
    }
    if(c<1){
      System.out.println("True");
    }
  }
}
```

```
Enter an array size:
5
Enter a integer array elements:
2 1 6 7 1
The array contains only a 1 or 4 as an elements
False
```

```
Enter an array size:
4
Enter a integer array elements:
1 4 4 1
The array contains only a 1 or 4 as an elements
True
```

11.

```
import java.util.Scanner;
public class Prgm11 {
  public static void main(String[] args) {
     Scanner sc=new Scanner(System.in);
    int[] a;
    System.out.println("Enter an array size:");
    int n=sc.nextInt();
    a=new int[n];
    System.out.println("Enter a integer array elements:");
    for(int i=0;i<n;i++){
      a[i]=sc.nextInt();
    }
    System.out.println("The rearranged array elemnts are:(even number first then odd numbers");
    for(int i=0;i<n;i++){
      if(a[i]%2==0){
        System.out.print(a[i]+" ");
      }
    }
    for(int i=0;i<n;i++){
```

```
        if(a[i]%2!=0){
          System.out.print(a[i]+" ");
        }
      }
    }
}
```

```
Enter an array size:
10
Enter a integer array elements:
3 2 10 5 34 67 34 29 40 56
The rearranged array elemnts are:(even number first then odd numbers
2 10 34 34 40 56 3 5 67 29
```

12.

```
import java.util.Scanner;
public class Prgm12 {
   public static void main(String[] args) {
      Scanner sc=new Scanner(System.in);
      int[] a,b;
      int n=3;
      a=new int[n];
      b=new int[n];
      System.out.println("Enter a 3 integer array elements for array1:");
      for(int i=0;i<n;i++){
         a[i]=sc.nextInt();
      }
      System.out.println("Enter a 3 integer array elements for array2:");
      for(int i=0;i<n;i++){
         b[i]=sc.nextInt();
      }
      System.out.println("Array containg a mid elements of given 2 arrays:");
      System.out.print("["+a[1]+" "+b[1]+"]");
   }
}
```

```
Enter a 3 integer array elements for array1:
3 4 2
Enter a 3 integer array elements for array2:
5 4 1
Array containg a mid elements of given 2 arrays:
[4 4]
```

13.

```
public class Reverse2d {
    public static void main(String []args){
        if(args.length <4){
            System.out.println("Please enter 4 integer numbers");
        }
        else{
            int k=0;
            int[][] a=new int[2][2];
            for(int i=0;i<2;i++){
                for(int j=0;j<2;j++){
                    a[i][j]=Integer.parseInt(args[k]);
                    k++;
                }
            }
            System.out.println("The given arrary is: ");
            for(int i=0;i<2;i++){
                for(int j=0;j<2;j++){
                    System.err.print(a[i][j]+" ");
                }
                System.out.println();
            }

            System.out.println("The reverse of the arrary is: ");
            System.out.println(a[1][1]+" "+a[1][0]);
            System.out.println(a[0][1]+" "+a[0][0]);
        }
    }
}
```

```
PS D:\Wipro> java Reverse2d 1 2 3 4
The given arrary is:
1 2
3 4
The reverse of the arrary is:
4 3
2 1
PS D:\Wipro>
```

14.

```
public class Biggesstnum3d {
    public static void main(String []args){
        if(args.length<9){
            System.out.println("Please enter 9 integer numbers");
        }
        else{
            int k=0;
            int[][] a=new int[3][3];
            for(int i=0;i<3;i++){
                for(int j=0;j<3;j++){
                    a[i][j]=Integer.parseInt(args[k]);
                    k++;
                }
            }
            int max=0;
            for(int i=0;i<3;i++){
                for(int j=0;j<3;j++){
                   if(a[i][j]>max){
                    max=a[i][j];
```

```
                }
            }
        }
        System.out.println("The given array is: ");
        for(int i=0;i<3;i++){
            for(int j=0;j<3;j++){
                System.err.print(a[i][j]+" ");
            }
            System.out.println();
        }
        System.out.println("The biggest number in the given arrary is "+max);
    }
}
}
```

```
PS D:\Wipro> java Biggesstnum3d 67 34 2
Please enter 9 integer numbers
PS D:\Wipro> java Biggesstnum3d 67 34 2 23 12 1 45 67 32
The given array is:
67 34 2
23 12 1
45 67 32
The biggest number in the given arrary is 67
PS D:\Wipro>
```