1. Aim :-

To write Java program for reversing a number

Pseudo code :

step1 : intialize the variables and get the number from the user

step2 : wing the while loop perform :

- get the last digit from the number
- add it with sum and multiply with 10.

step3 : display the result.

Program :-

```
import java.util.Scanner;
Public class reverse_number {
    Public Static void main (String[] args) {
        Scanner input = new Scanner (system.in);
    system.out.print("enter the number : ");
    int num = Scanner.nextInt();
    int rev = 0, temp;
    While (num>0)
    { temp = num %.10;
      rev = rev* 10+temp;
       num = num /10;
```

}
System.out.println("reversed number="+rev);
}
}

Sample Input :-

enter the number : 2435

reversed number : 5342

2. Aim :-

To write java program for checking weather a number is Amstrong or not

Pseudo code :

Step1 : initialize the variables and get the input number from the user

Step2 : using while loop get the last digit from the number.

step3 : find the cube and add it with sum variable. Then remove the last digit.

step4 : If sum is equal to the actual number than it is amstrong.

Eg :- $153 = 1^3 + 5^3 + 3^3$

Program :-

```
import java.util.Scanner;
   Public class armstrong{
     Public static void main(string[]
                              args){
      int n= input.nextInt();
      int temp=n,b,sum=0;
       while (n>0) {
        b=n%10;
       sum+=b*b*b;
        n=n/10;
       } if(sum== temp);
        {
         system.out.print("Armstrong");
        }
          else
          system.out.print("NOT");
       }
      }
```

Sample output:

enter the number :153

Armstrong.

Aim :- To write Java program for finding the gcd of two numbers.

Pseudo code :-

Step1 : Initialize the variables and get the numbers a and b from the user.

Step2 : Using the for loop find a number which is less than a and b and also the number should divisible by both a and b.

Step3 : If you get multiple numbers than choose the largest one

Program :-

```
import java.util.Scanner;
public class gcd {
    public static void main(String[] args){
        Scanner input = new Scanner(System.in);
        System.out.print("enter two num: ");
            int a = input.nextInt();
            int b = input.nextInt();
                int i, gcd = 1;
                    for (i = 1; i <= a && i <= b; i++)
                    { if (a % i == 0 && b % i == 0)
```

Scanned by Scanner Go

```
{
 gcd = i;
 }
 }
  System.out.printC"gcd= "+gcd);
 }
}
```

Sample output :-

enter two numbers: 6 90

gcd = 6

4 Aim :-

To write Java program for merging two sorted arrays a single Sorted array.

Pseudo code:

step1: Initialize the variables and get the input string from the wer

step2: merge the both strings and then sort the array and store it in new array.

step3: convert the array into string and display the single merged array.

Program :

```
import java.util.Scanner;
Public class merge {
    Public static void main(String[]
                                args){
    int[] a = {1,4,7,9};
```

```
int[] b = {3,6,11};
int[] c = new int[a.length + b.length];
for(int i=0; i<a.length; i++)
    c[i] = a[i];
for(i=0; i<b.length; i++)
    c[i+a.length] = b[i];
Arrays.sort(c);
System.out.print(Arrays.toString(c));
}
}
```

Sample output:

Sorted array: [1, 3, 4, 6, 7, 9, 11]

5 Aim :-

To write Java program for find the frequency of each char in a string.

Pseudo code:

Step1 : initialize the variables and get the input string.

Step2 : An array of size 256 is used to store the frequency of each ASCII character

Aim :-

To write Java program for find the frequency of each char in a string

Pseudo Code :-

Step1 :- Initialise the variables and get the input string from the wer

Step2 :- An array of size 256 is wed to store the frequency of each ASCIT character.

Step 3 :- If frequency is greater than zero then print the char and its frequency.

Program :-

```
Public class frequency {
    Public static void main(String[]
    args) {
        string input = "hello";
        int[] frequency = new int[256];
    for (int i=0; i<input.length; i++){
            char ch = input.charAt(i);
            frequency[ch]++;
        }
          for(i=0; i<frequency.length; i++){
              if (frequency[i]>0) {
```

```
System.out.println((char)i + " : " + frequency[i]);
    }
  }
}
```

Sample output :

```
e : 1
h : 1
l : 2
o : 1
```