Aim:- To write Java program for reversing a number

Pseudo code:-

step 1:- initialize the variables and get the number from the user

step 2:- using the while loop perform:
- get the last digit from the number
- add it with sum and multiply with 10
- remove the last digit from the number

step 3:- 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 output:-

enter the number: 2435
reversed number: 5342

2) **Aim:-** To write java program for checking weather a number is Armstrong or not

Pseudo code:-

Step 1:- initialize the variales and get the input number from the user

Step 2:- using while loop get the last digit from the number.

Step 3:- find the cuber and odd it with sum variable then remove the last digit. continue until the number is greater than zero

Step 4:- if sum is equal to the actual number then it is armstrong number else it is not a Amstrong number

eg: $153 = 1^3 + 5^3 + 3^3$

program:-

```
import java.util.scanner;
public class amstrong {
public static void main (string[] args){
system.out.print("enter the number:");
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("Amstrong");
}
else
system.out.print("Not Amstrong");
}
}
```

Sample output:-

enter the number: 153

Amstrong.

```
import java.util.Arrays;
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.println(Arrays.toString
                        (c));
}
}
```

Sample output:

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

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

Sample output:-

enter two numbers: 6 90

gcd = 6

4) **Aim:-** To write Java program for merging two sorted arrays into a single

Pseudo Code:-

step 1:- Initialize the variables and get the input string from the users.

step 2:- merge the both strings and then sort the array and store it in new array

step 3:- 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.to string
                        (c));
}
}
```

Sample output:-

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

im:- To write Java program for finds the frequency of each char in a string

Pseudo code:-

Step 1:- Initialize the variables and get the input string from the user

Step 2:- An array of size 256 is used to store the frequency of each ASSCII character.

Step 3:- Iterate the loop over each char of the string and update the frequency count

program:-

```
public class frequency{
public static void main(string[] args){
    string input = "hello";
     int[] frequecy = 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+":"+freq[i]);
        }
    }
}
```

Sample Outputs:-

e : 1

h : 1

l : 2

o : 1