

Java Programming.

1. Aim: To write java program for reversing a number

Pseudocode:

- Initialize the variables and get the number from the user.
- Using the while loop perform, get the last digit from the number.
- Display the result

Program:

```
import java.util.Scanner;  
  
public class reverse_number{  
    public static void main (String [] args) {  
        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;  
        }  
    }.
```

Sample Output:

Enter the number = 1234

Reversed number = 4321.

2. Aim is To write java program for checking whether a number is armstrong or not

Pseudocode

- Initialize the variables and get the input number from the user
- Using while loop get the last digit from the number
- Using while loop get the last digit from the number till the number is < zero.

Program's

```
import java.util.Scanner;  
public class Armstrong {  
    public static void main (String [] args) {  
        System.out.print ("enter the number");  
        int temp = n, 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 armstrong");  
    }  
}
```

Sample Output

Enter the number: 153.

Armstrong

3. Aim: To write a program for finding gcd of two numbers.

Pseudocode

→ Initialize the variables and get the number a and b from the user.

→ Using the for loop find a number which is less than a and b.

→ also the no should be divisible by both.

→ If you get multiple number Then 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 2 numbers : ");
        int a = input.nextInt();
        int b = input.nextInt();
        int i, gcd=1;
        {gcd=1;
        }
    }
    System.out.println ("gcd = " + gcd);
}
```

Sample o/p:

Enter two numbers = 690

gcd = 6

Q: Aim: To write java program for merge two sorted arrays into a single.

Pseudocode:

- Initialize the variables & get the input string from the user.
- merge the both.
- convert the array into string & display the single merged array

Program:

```
import java.util.Scanner;  
public class merge {  
    public static void main(Strings 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 (int i=0; i<b.length; i++)  
            c[a.length + i] = b[i];  
        System.out.println (Arrays.toString(c));  
    }  
}
```

Sample o/p:

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

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

Pseudo code

- Initialize the variables & get the input string from user.
- An array of size 256 is used to store the frequency.
- Iteration - the loop over each char of the string & update the frequency count.

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 (int i=0; i<frequency.length; i++) {  
            System.out.println (char);  
        }  
    }  
}
```

Sangk dp v