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CSA0914.

-Assignment - 2

1) Aim :- To write Java program for reversing a Number.

Pseudocode :-

Step 1 :- Initialize the variable 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

Step 3 :- display the Result.

Program :-

```
Import. java.util.Scanner;
```

```
Public static void main( String [ ] args ) {
```

```
    Public static reverse. Number {
```

```
        Scanner . input = new Scanner ( system. in )
```

```
        System.out. Point ("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 a number is Armstrong or Not.

Pseudo code :-

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

Step 2 :- Using while loop get the last digit of the Number

Step 3 :- Find the cube and add it with sum variable then remove the Continue until the Number is greater than zero.

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.println("Amstrong");  
    } else {  
        System.out.println("is Not"); }  
}
```

Sample output:-

Enter the Number:- 153

— Armstrong

3) Aim :- To write Java program the Greatest Common divisor of two Number.

Pseudocode :-

Step 1 :- Initialize the variable and get the Number a and b from the system.

Step 2 :- Using the for loop find a number while is less than a and b should both a and b.

Step 3 :- If you get multiple numbers then 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 numbers:");  
Int a = input.nextInt();  
Int b = input.nextInt();  
Int q, gcd = 1;
```

```

for (i=1; i<=a&p && b>i; i++)
{
    if (a % i == 0 && b % i == 0)
        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

Pseudocode :-

Step 1 :- Initialize the variable and get the input from the user

Step 2 :- Merge the both string from the user

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];  
        Array.sort(c);  
        System.out.println("Array to stringcc");  
    }  
}
```

Sample OUTPUT:-

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

05) Aim :- To write Java program for find the frequency of each char in string

Pseudocode :-

Step 1 :- Initialize the variable and get input from the user.

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

Step 3 :- Iterate the loop over each char of 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]++;
```

```
}
```

```
④ for (i=0; i<frequency.length; i+1){  
    if (frequency[i] > 0){  
        System.out.println("Shift "+ frequency[i]);  
    }  
}
```

Sample output

C = 2

h = 1

l = 2

O = 1

"Normal" type photo

Shift the main program to file

Shift the main program to file

"L97" for command line arguments

Print "Normal"