

Assignment - 6

A Job Ready Bootcamp in C++, DSA and IOT MySirG

Use any loop

Submitted By,

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1. Write a program to calculate sum of first N natural numbers

```
#include<stdio.h>

int main(){
    int sum = 0,n;
    printf("program to calculate sum of first N natural
numbers\n");
    printf("Enter value of N: ");
    scanf("%d", &n);
    for(int i=1; i<=n; i++){
        sum += i;
    }
    printf("sum of first %d natural numbers is: %d",n, sum);
    return 0;
}
```

2. Write a program to calculate sum of first N even natural numbers

```
#include<stdio.h>

int main(){
    int sum = 0, n;
    printf("Program to calculate sum of first N even natural
numbers\n");
    printf("Enter value of N: ");
    scanf("%d", &n);
    for(int i=1; i<=n; i++){
        sum += 2*i;
    }
    printf("sum of first %d even natural numbers: %d",n, sum);
    return 0;
}
```

3. Write a program to calculate sum of first N odd natural numbers

```
#include<stdio.h>

int main(){
    int sum=0, n;
    printf("Program to calculate sum of first N odd
natural numbers\n");
    printf("Enter value of N: ");
    scanf("%d", &n);
    for(int i=1; i<=n; i++){
        sum += 2*i-1;
    }
    printf("sum of first %d odd natural numbers : %d",n,
sum);
}
```

4. Write a program to calculate sum of squares of first N natural numbers

```
#include<stdio.h>

int main(){
    int sum=0, n;
    printf("Program to calculate sum of squares of first
N natural numbers\n");
    printf("Enter value of N: ");
    scanf("%d", &n);
    for(int i=1; i<=n; i++){
        sum += i*i;
    }
    printf("Sum of squares of first %d natural numbers:
%d", n, sum);
    return 0;
}
```

5. Write a program to calculate sum of cubes of first N natural numbers

```
#include<stdio.h>
int main(){
    int sum=0, n;
    printf("Program to calculate sum of cubes of first N
natural numbers");
    printf("Enter value of N: ");
    scanf("%d", &n);
    for(int i=1; i<=n; i++){
        sum += i*i*i;
    }
    printf("Sum of cubes of first %d natural numbers:
%d", n, sum);
    return 0;
}
```

6. Write a program to calculate factorial of a number

```
#include<stdio.h>
int main(){
    int sum=1, n;
    printf("Program to calculate factorial of a number,
N\n");
    printf("Enter value of N: ");
    scanf("%d", &n);
    for (int i=1; i<=n; i++){
        sum *= i;
    }
    printf("factorial of %d is %d", n, sum);
    return 0;
}
```

7. Write a program to count digits in a given number

```
#include<stdio.h>

int main(){
    int n, count = 0;
    printf("Enter a number: ");
    scanf("%d", &n);
    while(n>0){
        n = n/10;
        count++;
    }
    printf("digits in given number is : %d", count);
    return 0;
}
```

8. Write a program to check whether a given number is a Prime number or Not

```
#include<stdio.h>

int main(){
    int n, temp = 0;
    printf("program to check whether a given number is a Prime number or not\n");
    printf("Enter a number: ");
    scanf("%d", &n);
    for(int i=2; i<n; i++){
        if (n%i == 0){
            temp = 1;
            break;
        }
    }
    printf(temp == 0? "prime number":"Not a prime number");
    return 0;
}
```

9. Write a program to calculate LCM of two numbers

```
#include<stdio.h>
int main(){
    int n, n1, lc;
    printf("Enter 2 numbers: ");
    scanf("%d%d", &n, &n1);
    lc = (n>n1) ? n : n1 ;
    while(1){
        if (lc%n == 0 && lc%n1 == 0){
            printf("lcm is : %d", lc);
            break;
        }
        else
            lc++;
    }

    return 0;
}
```

10. Write a program to reverse a given number

```
#include<stdio.h>
int main(){
    int n, d=0;
    printf("Enter a number: ");
    scanf("%d", &n);
    while(n>0){
        d = d*10 + n%10;
        n = n/10;
    }
    printf("reverse of given number is : %d", d);
    return 0;
}
```