

Assignment - 6 A Job Ready Bootcamp in C++, DSA and IOT MySirG

Use any loop

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

```
#include<stdio.h>
int main()
{
    int n,s=0,i=1;
    printf("Enter the number");
    scanf("%d",&n);
    while(i<=n)
    {
        s=s+i;
        i++;
    }
    printf("%d ",s);
    return 0;
}
```

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

```
#include<stdio.h>
int main()
{
    int n,s=0,i=1;
    printf("Enter the number");
    scanf("%d",&n);
    while(i<=n)
    {
        s=s+i*2;
        i++;
    }
    printf("%d ",s);
    return 0;
}
```

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

```
#include<stdio.h>
int main()
{
    int n,s=0,i=1;
    printf("Enter the number");
    scanf("%d",&n);
```

```

        while(i<=n)
        {
            s=s+i*2-1;
            i++;
        }
        printf("%d ",s);
        return 0;
    }

```

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

```

#include<stdio.h>
int main()
{
    int n,s=0,i=1;
    printf("Enter the number");
    scanf("%d",&n);
    while(i<=n)
    {
        s=s+i*i;
        i++;
    }
    printf("%d ",s);
    return 0;
}

```

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

```

#include<stdio.h>
int main()
{
    int n,s=0,i=1;
    printf("Enter the number");
    scanf("%d",&n);
    while(i<=n)
    {
        s=s+i*i*i;
        i++;
    }
    printf("%d ",s);
    return 0;
}

```

6. Write a program to calculate factorial of a number

```
#include<stdio.h>
int main()
{
    int x,f=1;
    printf("Enter the no: ");
    scanf("%d",&x);
    while(x>0)
    {
        f=f*x;
        x--;
    }
    printf("%d",f);
    return 0;
}
```

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

```
#include<stdio.h>
int main()
{
    int i,n,s=0;
    printf("Enter the no:");
    scanf("%d",&n);
    while(n>0)
    {
        i=n%10;
        s++;
        n=n/10;
    }
    printf("Digits in given no:%d",s);
    return 0;
}
```

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

```
#include<stdio.h>
int main()
{
    int i,n;
```

```

printf("Enter the no:");
scanf("%d",&n);
for(i=2;i<=n/2;i++)
    if(n%i==0)
        break;
    if (i==n/2+1)
        printf("Given no. is prime");
    else
        printf("Given no. is not prime");
return 0;
}

```

9. Write a program to calculate LCM of two numbers

```

#include<stdio.h>
int main()
{
    int x,y,i;
    printf("Enter the two no: ");
    scanf("%d %d",&x,&y);
    for(i=1;i<=x*y;i++)
    {
        if(i%x==0&i%y==0)
            break;
    }
    printf("LCM of given no. is %d",i);
    return 0;
}

```

10. Write a program to reverse a given number

```

#include<stdio.h>
int main()
{
    int i,n;
    printf("Enter the no:");
    scanf("%d",&n);
    while(n>0)
    {
        i=n%10;
        printf("%d",i);
        n=n/10;
    }
}

```

```
    return 0;  
}
```