**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**

**Ans-**

#include<stdio.h>

int main()

{

int i,n,sum;

printf("Enter a Number ");

scanf("%d",&n);

for(i=1,sum=0;i<=n;i++)

{

sum=sum+i;

}

printf("Sum of %d Natural Number is %d",n,sum);

return 0;

}

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

**Ans-**

#include<stdio.h>

int main()

{

int i,n,sum;

printf("Enter a Number ");

scanf("%d",&n);

for(i=1,sum=0;i<=n;i++)

{

sum=sum+i\*2;

}

printf("Sum of %d Even Natural Number is %d",n,sum);

}

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

**Ans-**

#include<stdio.h>

int main()

{

int i,n,sum;

printf("Enter a Number ");

scanf("%d",&n);

for(i=1,sum=0;i<=n;i++)

{

sum=sum+i\*2-1;

}

printf("Sum of %d Odd Natural Number is %d",n,sum);

return 0;

}

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

**Ans-**

#include<stdio.h>

int main()

{

int i,n,sum;

printf("Enter a Number ");

scanf("%d",&n);

for(i=1,sum=0;i<=n;i++)

{

sum=sum+i\*i;

}

printf("Sum of %d Square is %d",n,sum);

return 0;

}

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

**Ans-**

#include<stdio.h>

int main()

{

int i,n,sum;

printf("Enter a Number ");

scanf("%d",&n);

for(i=1,sum=0;i<=n;i++)

{

sum=sum+i\*i\*i;

}

printf("Sum of %d Cube is %d",n,sum);

return 0;

}

**6. Write a program to calculate factorial of a number**

**Ans-**

#include<stdio.h>

int main()

{

int i,n,fact;

printf("Enter a number ");

scanf("%d",&n);

for(i=1,fact=1;i<=n;i++)

fact=fact\*i;

printf("Factorial of %d is %d",n,fact);

return 0;

}

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

**Ans-**

#include<stdio.h>

void main()

{

int main;

int n,i,count=0,num;

printf("Enter a number ");

scanf("%d",&n);

num=n;

while(n)

{

n=n/10;

count++;

}

printf("Total digits in %d is %d ",num,count);

return 0;

}

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

**Ans-**

#include<stdio.h>

void main()

{

int main;

int n,i,j;

printf("Enter a number ");

scanf("%d",&n);

for(i=2;i<=n/2;i++)

{

if(n%i==0)

break;

}

if(n%i==0)

{

printf("Not Prime");

}

else

printf("Prime");

return 0;

}

**9. Write a program to calculate LCM of two numbers**

**Ans-**

#include<stdio.h>

void main()

{

int main;

int a,b,i;

printf("Enter a number ");

scanf("%d%d",&a,&b);

for(i=1;i<=a\*b;i++)

{

if((i%a==0) && (i%b==0))

{

break;

}

}

printf("LCM of %d and %d is %d",a,b,i);

return 0;

}

**10. Write a program to reverse a given number**

**Ans-**

#include<stdio.h>

int main()

{

int i,n,remainder,reverse=0;

printf("Enter a number ");

scanf("%d",&n);

while(n)

{

remainder=n%10;

n=n/10;

reverse=reverse\*10 + remainder;

}

printf("Reverse of %d is %d",n,reverse);

}