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

***Use any loop***

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

#include<stdio.h>

int main()

{

    int n,i,sum=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

       sum = sum+i;

    }

    printf("Sum of the numbers: %d = %d",n,sum);

    return 0;

}

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

#include<stdio.h>

int main()

{

    int n,i,sum=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

        if(i%2==0)

        {

            sum = sum+i;

        }

    }

    printf("Sum of the even numbers:%d = %d",i,sum);

    return 0;

}

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

#include<stdio.h>

int main()

{

    int n,i,sum=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

        if(i%2!=0)

        {

            sum = sum+i;

        }

    }

    printf("Sum of the odd numbers:%d",sum);

    return 0;

}

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

#include<stdio.h>

int main()

{

    int n,i,sum=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

        sum += (i\*i);

    }

    printf("Sum of squares: %d = %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 n,i,sum=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

        sum += (i\*i\*i);

    }

    printf("Sum of squares: %d = %d",n,sum);

    return 0;

}

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

#include<stdio.h>

int main()

{

    int i,n,f=1;

    printf("Enter the numbers:");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

        f = f\*i;

    }

    printf("Factorial %d",f);

    return 0;

}

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

#include<stdio.h>

int main()

{

    int i,n,count=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    while(n!=0)

    {

        count++;

        n/=10;

    }

    printf("Count of the numbers: %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 i,n,temp=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    for(i=1; i<=n; i++)

    {

        if(n%i==0)

        {

            temp++;

        }

    }

    if(temp==2)

    {

        printf("Number is Prime:");

    }

    else

    {

        printf("Number is not Prime:");

    }

    return 0;

}

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

#include<stdio.h>

int main()

{

    int n1,n2,i;

    printf("Enter the first numbers:");

    scanf("%d",&n1);

    printf("Enter the second numbers:");

    scanf("%d",&n2);

    for(i=1;; i=i+1)

    {

        if(i%n1==0 && i%n2==0)

        {

            printf("Lcm of %d and %d = %d\n",n1,n2,i);

            break;

        }

    }

}

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

#include<stdio.h>

int main()

{

    int n,rev=0;

    printf("Enter the numbers:");

    scanf("%d",&n);

    while(n!=0)

    {

        rev = (rev\*10)+(n%10);

        n/=10;

    }

    printf("Reverse of the number %d",rev);

    return 0;

}