## Experiment No: 21

## **Experiment Name:** Make Sum from 1^2 to n^2 and print in each 10th.

## **Objective:**

In this lab exercise, we will write a simple C program to calculate the sum of squares from 1^2 to n^2 and print the sum every 10th calculation. The program will take an input from the user for the value of 'n', perform the calculations, and display the results at every 10th iteration.

# **Code:**

#include <stdio.h>

int main()

{

int i, n, sum=0;

printf("Enter the value of n: ");

scanf("%d", &n);

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

{

sum += i\*i;

if(i%10 == 0)

{

printf("Sum after %d iterations is %d\n", i, sum);

}

}

printf("Final sum is %d\n", sum);

return 0;

}

# **Input:**

Enter the value of n: 7

# **Output:**

Final sum is 140

## **Discussion:**

The provided C program prompts the user to input a value n and then calculates the sum of squares from 1^2 to n^2. The program prints the accumulated sum for every 10th iteration and displays the final sum at the end.