Assignment 11 C Language Live Community Classes

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

#include <stdio.h>

int main(){

int i, n, sum = 0;

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

scanf("%d", &n);

for ( i = 0; i <= n; i++){

sum = sum + i;

}

printf("The sum of first %d natural numbers is %d.", n, sum);

return 0;

}

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

#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 = sum + 2\*i;

}

printf("The sum of first %d even natural numbers is %d.", n, sum);

return 0;

}

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

#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 = sum + 2\*i-1;

}

printf("The sum of first %d odd natural numbers is %d.", n, sum);

return 0;

}

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

#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 = sum + i\*i;

}

printf("The sum of square of first %d natural numbers is %d.", n, sum);

return 0;

}

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

#include <stdio.h>

int main(){

int i, sum = 0, n;

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

scanf("%d", &n);

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

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

}

printf("The sum of cube of first %d natural numbers is %d.", n, sum);

return 0;

}

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

#include <stdio.h>

int main(){

int num, fact = 1, x;

printf("Enter a number : ");

scanf("%d", &num);

x = num;

while (num >= 1){

fact = fact \* num;

num--;

}

printf("The factorial of %d is %d. ", x, fact);

return 0;

}

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

#include <stdio.h>

int main(){

int num, digit=0, x;

printf("Enter a number : ");

scanf("%d", &num);

x = num;

while (num!=0){

num = num/10;

digit++;

}

printf("The digits in %d is %d.", x, digit);

return 0;

}

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

#include <stdio.h>

int main(){

int number, i;

printf("Enter a number : ");

scanf("%d", &number);

for (i = 2; i <= number - 1; i++){

if (number % i == 0){

break;

}

}

if (i == number){

printf("%d is prime number.", number);

}

else{

printf("%d is not prime number.", number);

}

return 0;

}

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

#include <stdio.h>

int main(){

int num1, num2, LCM;

printf("Enter two numbers : ");

scanf("%d %d", &num1, &num2);

for(LCM = 1; LCM <= num1\*num2; LCM++)

if(LCM % num1 == 0 && LCM % num2 ==0)

break;

printf("The LCM of %d and %d is %d.", num1, num2, LCM);

return 0;

}

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

#include <stdio.h>

int main()

{

int num, rem, rev = 0, x;

printf("Enter a number : ");

scanf("%d", &num);

x = num;

while (num!=0){

rem = num % 10;

rev = rev \* 10 + rem;

num = num / 10;

}

printf("The reverse of %d is %d", x, rev);

return 0;

}