Practical File of

Programming in C

Course Code: CSEG1041

School Of Computer Science

Submitted By

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Course: BCA
Semester: 1
Batch: B5
Academic Year : 2025-26

Submitted To

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Experiment 2: Operators

1. WAP a C program to calculate the area and perimeter of a rectangle based on its length and width.

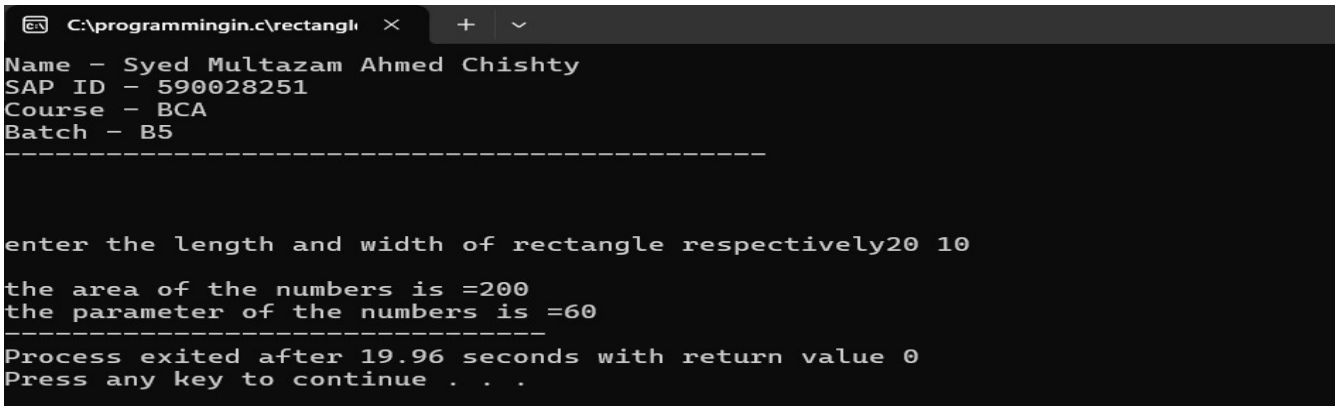
SOURCE CODE: -

```
// write a program to calculate the are and perimeter of a rectangle based on its length and width

#include<stdio.h>
int main()
{
    printf("Name - Syed Multazam Ahmed Chishty\nSAP ID - 590028251\nCourse - BCA\nBatch - B5");
  printf("\n-----------------------------------------\n");

  int length1,width1,area1;
  int parameter1;
   printf("\n\n\nenter the length and width of rectangle respectively");
   scanf("%d%d",&length1,&width1);
  area1=(length1*width1);
  parameter1=2*(length1+width1);
   printf("\nthe area of the numbers is =%d",area1);
   printf("\nthe parameter of the numbers is =%d",parameter1);
   return 0;
}
```

EXECUTION: -



2. WAP a C program to Convert temperature from Celsius to Fahrenheit using the formula: F = (C * 9/5) + 32.

SOURCE CODE: -

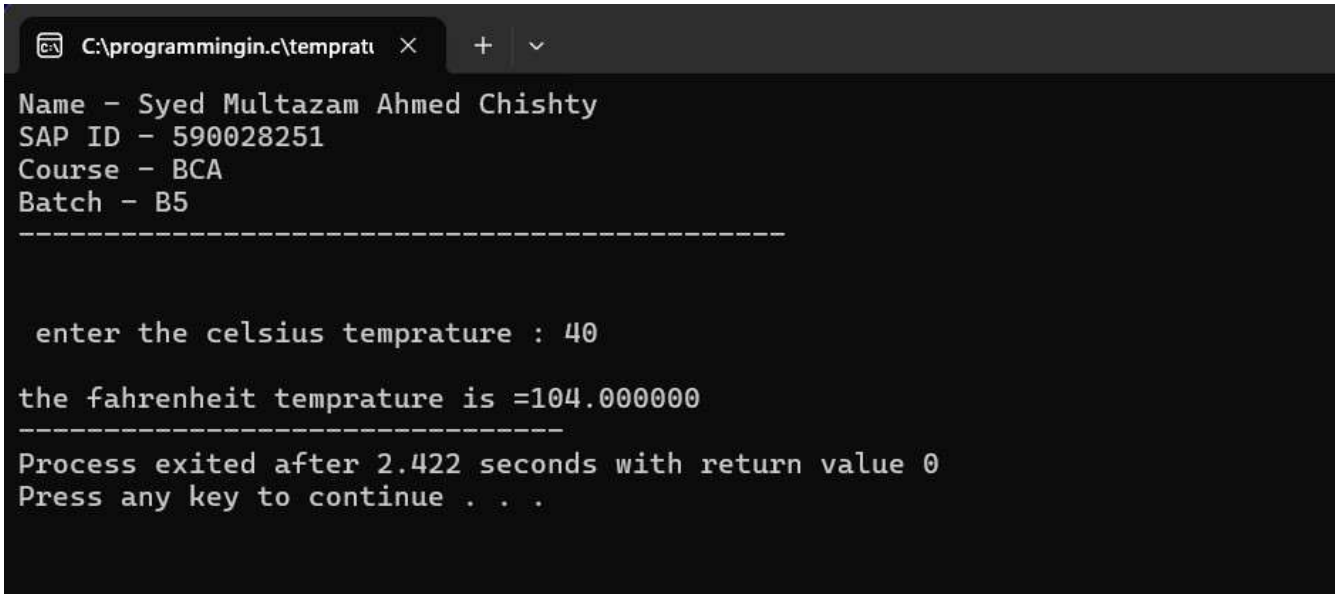
```
#include<stdio.h>
// WAP a C program to Convert temperature from Celsius to Fahrenheit using the formula: F = (C * 9/5) + 32.

int main()
{
  printf("Name - Syed Multazam Ahmed Chishty\nSAP ID - 590028251\nCourse - BCA\nBatch - B5");
  printf("\n-----------------------------------------\n");

  double celsius,fahrenheit;
  printf("\n\n enter the celsius temprature : ");
  scanf("%lf",&celsius);
  fahrenheit=(celsius*(9.0/5.0))+32;
  printf("\nthe fahrenheit temprature is =%lf",fahrenheit);
  return 0;

}
```

EXECUTION: -



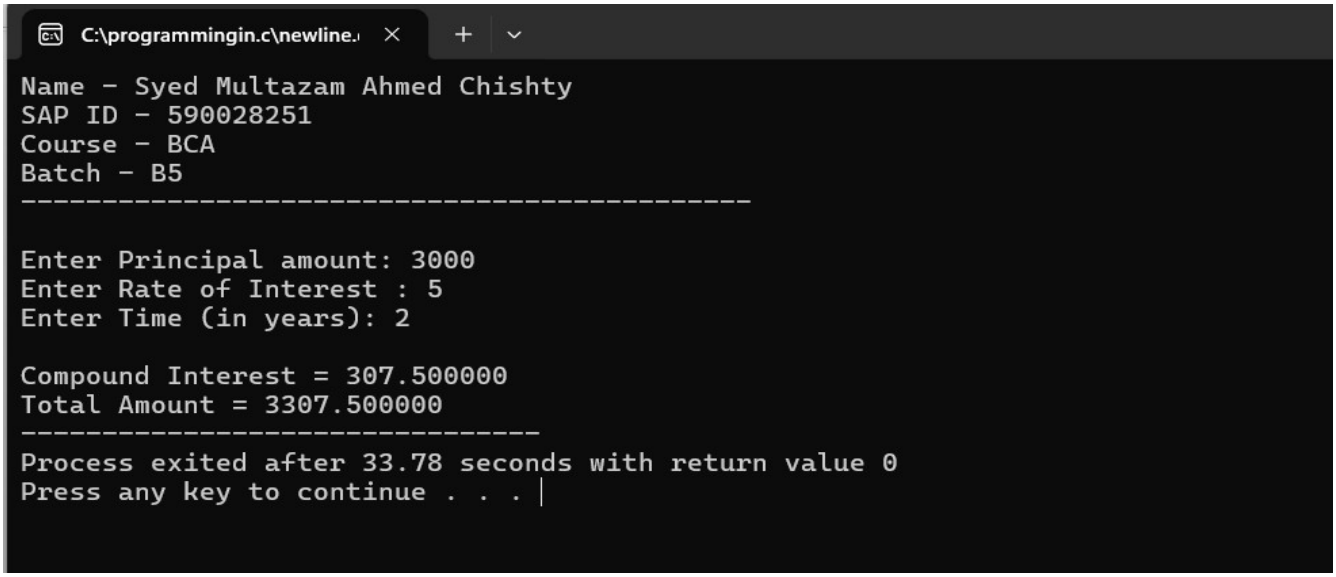
3. Write a program to calculate Compound Interest.

SOURCE CODE: -

```
 // WAP to calculate compound interest
#include<stdio.h>
#include <math.h>
int main()
{ printf("Name - Syed Multazam Ahmed Chishty\nSAP ID - 590028251\nCourse - BCA\nBatch - B5");
    printf("\n-----------------------------------------\n");

    double principal, rate, time, amount, ci;
    printf("\nEnter Principal amount: ");
    scanf("%lf", &principal);
    printf("Enter Rate of Interest : ");
    scanf("%lf", &rate);
    printf("Enter Time (in years): ");
    scanf("%lf", &time);
    amount = principal*pow((1+(rate/100)),time);
    ci = amount-principal;
    printf("\nCompound Interest = %lf", ci);
    printf("\nTotal Amount = %lf", amount);
    return 0;
}
```

EXECUTION: -



4.. Write a c program to find the roots of the quadratic equation without if else ladder?

SOURCE CODE: -

```
//write a c program to find the roots of the quadratic equation?
#include<stdio.h>
#include<math.h>
int main()
{ printf("Name - Syed Multazam Ahmed Chishty\nSAP ID - 590028251\nCourse - BCA\nBatch - B5");
   printf("\n-----------------------------------------\n");
double a,b,c,x1,x2,discriminant;
        printf("NOTE: THE VALUE OF A SHOULD NOT BE 0\n IF THE ANSWER RETURNS A NAN VALUE THAT MEANS NO REAL ROOTS\nenter the values of A B C respectively : ");
        scanf("%lf %lf %lf",&a,&b,&c);
        //printf("%dpow(x,2) %dx %d",a,b,c);

        discriminant=pow(b,2)-4*a*c;

        x1=(-b+sqrt(discriminant))/(2*a);
   x2=(-b-sqrt(discriminant))/(2*a);
   printf(" the first root is %.2lf\n",x1);
   printf("the second root is %.2lf",x2);
}
```

EXECUTION: -