

Name Priyadarshi Prabhakar Sap ID 590029237

EXPERIMENT 2 : OPERATORS

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

ALGORITHM

STEP1: Start

STEP2: Declare variables length, width, area, perimeter

STEP3: Read length, width

STEP4: $\text{area} = \text{length} * \text{width}$

STEP5: $\text{perimeter} = 2 * (\text{length} + \text{width})$

STEP6: Print area, perimeter

STEP7: End

PSEUDOCODE :

START

Declare float length, width, area, perimeter

Print "Enter length: "

Input length

Print "Enter width: "

Input width

*area = length * width*

*perimeter = 2 * (length + width)*

Print "Area =", area

Print "Perimeter =", perimeter

END

CODE :

#include <stdio.h>

int main() {

float length, width, area, perimeter;

printf("Enter length of the rectangle: ");

scanf("%f", &length);

printf("Enter width of the rectangle: ");

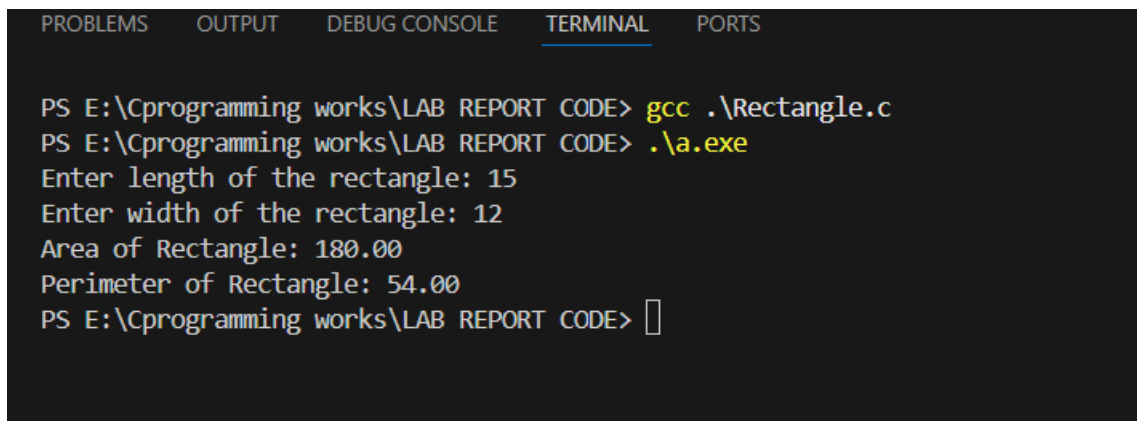
scanf("%f", &width);

*area = length * width;*

*perimeter = 2 * (length + width);*

```
printf("Area of Rectangle: %.2f\n", area);  
printf("Perimeter of Rectangle: %.2f\n", perimeter);  
  
return 0;  
}
```

OUTPUT:



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  
  
PS E:\Cprogramming works\LAB REPORT CODE> gcc .\Rectangle.c  
PS E:\Cprogramming works\LAB REPORT CODE> .\a.exe  
Enter length of the rectangle: 15  
Enter width of the rectangle: 12  
Area of Rectangle: 180.00  
Perimeter of Rectangle: 54.00  
PS E:\Cprogramming works\LAB REPORT CODE> 
```

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

ALGORITHM :

- STEP1:** Start
- STEP2:** Declare variables celsius, fahrenheit
- STEP3:** Read celsius
- STEP4:** $fahrenheit = (celsius * 9 / 5) + 32$
- STEP5:** Print fahrenheit
- STEP6:** End

PSEUDOCODE:

START

Declare float celsius, fahrenheit

Print "Enter temperature in Celsius: "

Input celsius

*fahrenheit = (celsius * 9 / 5) + 32*

Print "Temperature in Fahrenheit = ", fahrenheit

END

CODE :

```
#include <stdio.h>
```

```
int main() {
```

```
    float celsius, fahrenheit;
```

```
    printf("Enter temperature in Celsius: ");
```

```
    scanf("%f", &celsius);
```

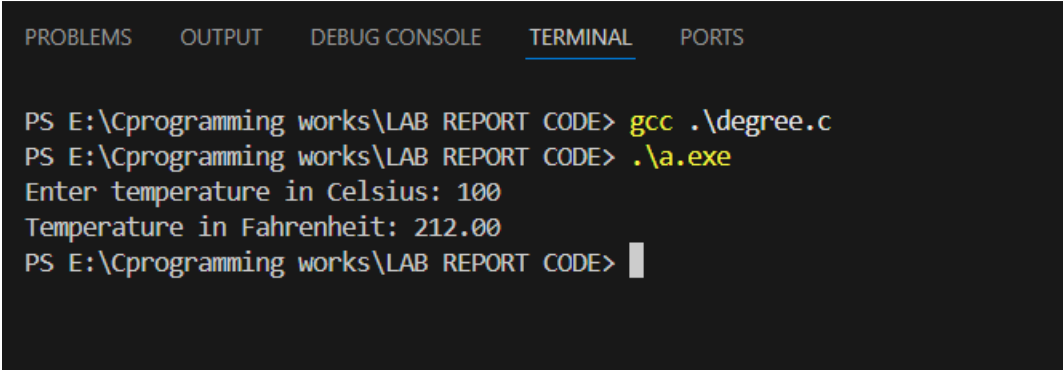
```
    fahrenheit = (celsius * 9 / 5) + 32;
```

```
printf("Temperature in Fahrenheit: %.2f\n", fahrenheit);
```

```
return 0;
```

```
}
```

OUTPUT :



The screenshot shows a terminal window with a dark background and light-colored text. At the top, there are five tabs: 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL' (which is selected and underlined), and 'PORTS'. Below the tabs, the terminal shows the following sequence of commands and output:

```
PS E:\Cprogramming works\LAB REPORT CODE> gcc .\degree.c
PS E:\Cprogramming works\LAB REPORT CODE> .\a.exe
Enter temperature in Celsius: 100
Temperature in Fahrenheit: 212.00
PS E:\Cprogramming works\LAB REPORT CODE> 
```