

Name – Gajanan Purud

Assignment 1

1) Finding F from C (temp).

```
#include <stdio.h> //Gajanan purud

int main() {

float celsius, fahrenheit;

printf("Enter temperature in Celsius: ");

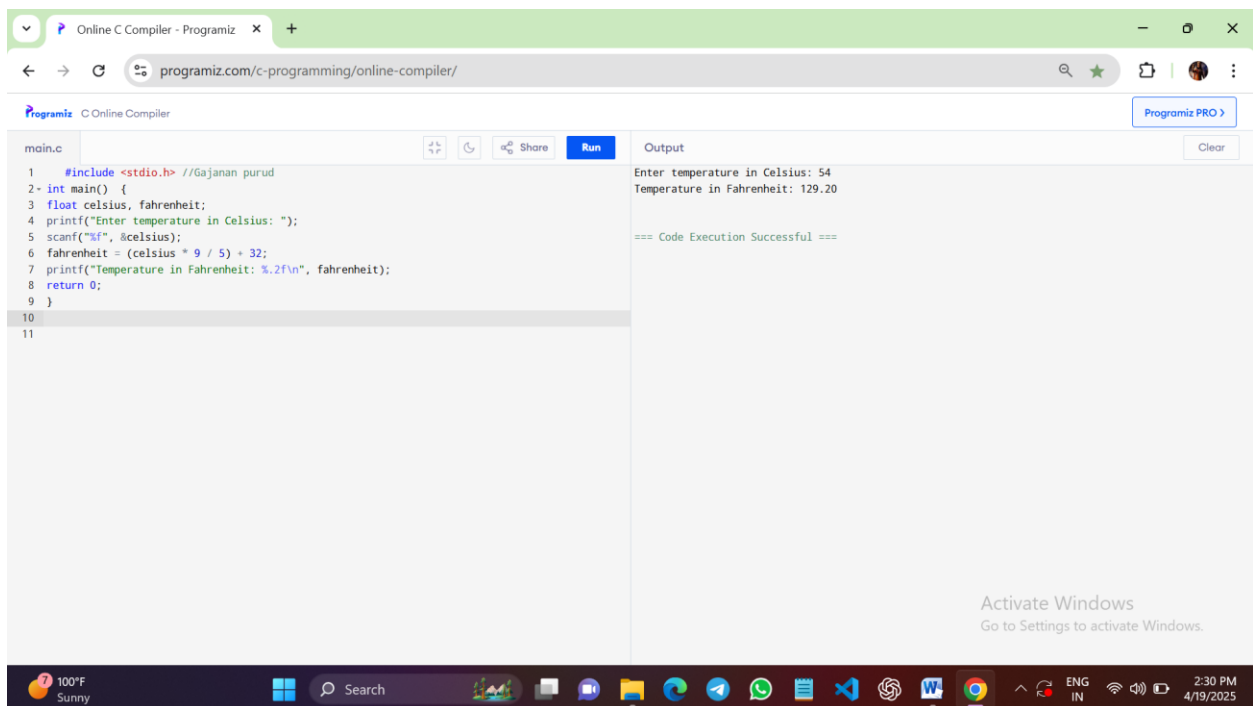
scanf("%f", &celsius);

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

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

return 0;

}
```



The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page displays the Programiz Online Compiler interface. On the left, a code editor shows the C program for converting Celsius to Fahrenheit. The code includes a header, declares variables, prompts for input, reads the input, performs the conversion, and prints the result. On the right, the 'Output' section shows the program's execution: 'Enter temperature in Celsius: 54' followed by 'Temperature in Fahrenheit: 129.20'. Below the output, it states '=== Code Execution Successful ==='. The browser's taskbar at the bottom shows the system time as 2:30 PM on 4/19/2025.

```
main.c 1 2 3 4 5 6 7 8 9 10 11
```

```
1 #include <stdio.h> //Gajanan purud
2 int main() {
3     float celsius, fahrenheit;
4     printf("Enter temperature in Celsius: ");
5     scanf("%f", &celsius);
6     fahrenheit = (celsius * 9 / 5) + 32;
7     printf("Temperature in Fahrenheit: %.2f\n", fahrenheit);
8     return 0;
9 }
10
11
```

Output

```
Enter temperature in Celsius: 54
Temperature in Fahrenheit: 129.20

=== Code Execution Successful ===
```

Activate Windows
Go to Settings to activate Windows.

100°F Sunny 2:30 PM 4/19/2025

2) Finding area and perimeter of rectangle or circle.

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

#define PI 3.1416

int main() {

    int choice; float length, width, radius, area, perimeter;

    printf("Choose a shape to calculate:\n");

    printf("1. Rectangle\n");

    printf("2. Circle\n");

    printf("Enter your choice (1 or 2): ");

    scanf("%d", &choice);

    if (choice == 1) {

        printf("Enter length of rectangle: ");

        scanf("%f", &length);

        printf("Enter width of 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);

    } else {

        if (choice == 2) {

            printf("Enter radius of circle: ");

            scanf("%f", &radius);

            area = PI * radius * radius;

            perimeter = 2 * PI * radius;
```

```

printf("Area of Circle = %.2f\n", area);

printf("Perimeter (Circumference) of Circle = %.2f\n", perimeter);

    } else {

        printf("Invalid choice. Please enter 1 or 2.\n");

    }

}

return 0;

}

```

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page displays a C program in a text editor and its execution output. The program is a C program that calculates the area and perimeter of a rectangle and a circle. It prompts the user to choose a shape (1 for Rectangle, 2 for Circle) and then calculates the area and perimeter based on the input. The output shows the results for a circle with radius 5.

```

main.c
1 #include <stdio.h> //GP
2 #define PI 3.1416
3 int main() {
4     int choice;    float length, width, radius, area, perimeter;
5     printf("Choose a shape to calculate:\n");
6     printf("1. Rectangle\n");
7     printf("2. Circle\n");
8     printf("Enter your choice (1 or 2): ");
9     scanf("%d", &choice); if (choice == 1) {
10    printf("Enter length of rectangle: ");
11    scanf("%f", &length);
12    printf("Enter width of rectangle: ");
13    scanf("%f", &width);
14    area = length * width;
15    perimeter = 2 * (length + width);
16    printf("Area of Rectangle = %.2f\n", area);
17    printf("Perimeter of Rectangle = %.2f\n", perimeter);
18 } else {
19     if (choice == 2) {
20         printf("Enter radius of circle: ");
21         scanf("%f", &radius);
22         area = PI * radius * radius;
23         perimeter = 2 * PI * radius;
24         printf("Area of Circle = %.2f\n", area);
25         printf("Perimeter (Circumference) of Circle = %.2f\n", perimeter);
26     } else {
27         // Invalid input
28         printf("Invalid choice. Please enter 1 or 2.\n");
29     }
30 }

```

Output:

```

Choose a shape to calculate:
1. Rectangle
2. Circle
Enter your choice (1 or 2): 2
Enter radius of circle: 5
Area of Circle = 78.54
Perimeter (Circumference) of Circle = 31.42

=== Code Execution Successful ===

```

Windows taskbar at the bottom shows the date and time as 2:34 PM on 4/19/2025.

3) Accept a 3 digit number from user and find the sum of the digits and also reverse the number

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

```
int main()//gp
```

```
{int num, originalNum, sum = 0, reverse = 0;
```

```
printf("Enter a 3-digit number: ");
```

```
scanf("%d", &num);

originalNum = num;

if (num < 100 || num > 999) {

    printf("Error: Not a 3-digit number.\n");

    return 1;

}

while (num > 0) {

    int digit = num % 10;

    sum += digit;

    reverse = reverse * 10 + digit;

    num /= 10;

}

printf("Sum of digits of %d = %d\n", originalNum, sum);

printf("Reversed number = %d\n", reverse);

return 0;
```

}

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page title is "Online C Compiler - Programiz". The interface includes a "Run" button and a "Clear" button. The code editor contains the following C program:

```
main.c
1 #include <stdio.h>
2 int main()//gp
3 {int num, originalNum, sum = 0, reverse = 0;
4   printf("Enter a 3-digit number: ");
5   scanf("%d", &num);
6   originalNum = num;
7   if (num < 100 || num > 999) {
8     printf("Error: Not a 3-digit number.\n");
9     return 1;
10  }
11  while (num > 0) {
12    int digit = num % 10;
13    sum += digit;
14    reverse = reverse * 10 + digit;
15    num /= 10;
16  }
17  printf("Sum of digits of %d = %d\n", originalNum, sum);
18  printf("Reversed number = %d\n", reverse);
19  return 0;
20 }
21
22
```

The output window displays the following text:

```
Enter a 3-digit number: 243
Sum of digits of 243 = 9
Reversed number = 342

=== Code Execution Successful ===
```

An "Activate Windows" watermark is visible in the bottom right corner of the browser window.

4) Check if the given number is even or odd.

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

```
//gp
```

```
int main() {
```

```
int num;
```

```
printf("Enter an integer: ");
```

```
scanf("%d", &num);
```

```
if (num % 2 == 0) {
```

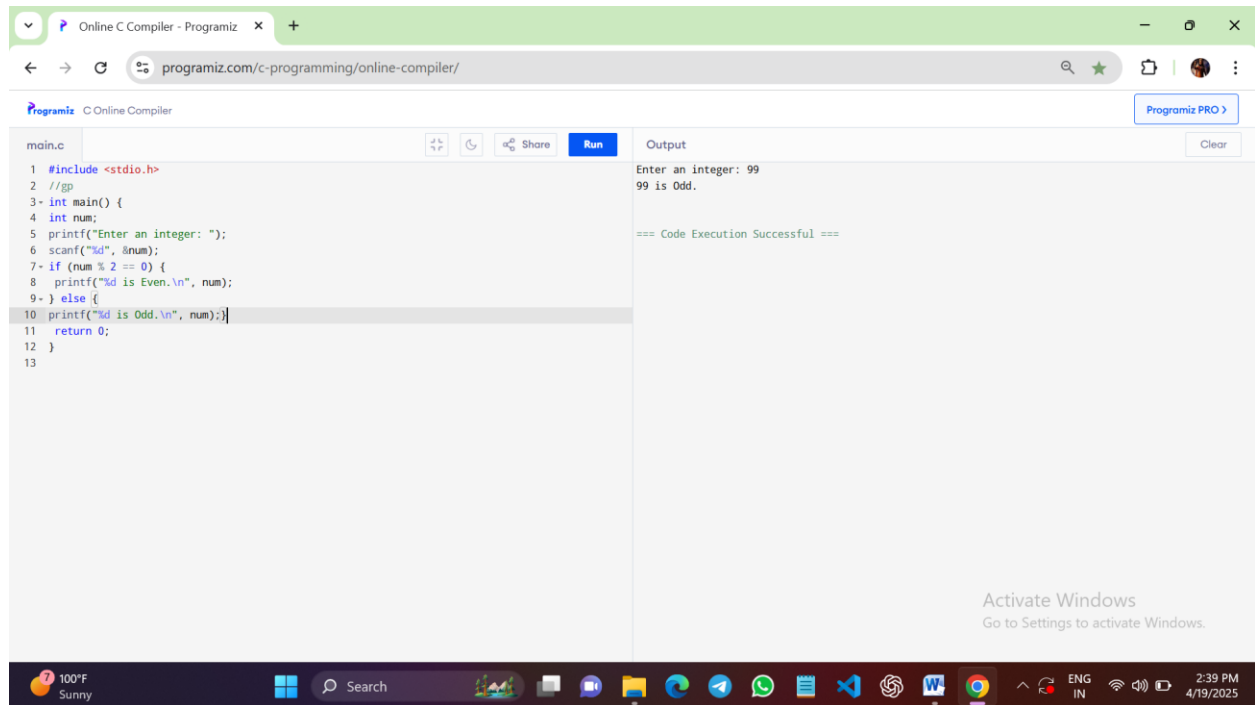
```
printf("%d is Even.\n", num);
```

```
} else {
```

```
printf("%d is Odd.\n", num);}
```

```
return 0;
```

}



The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page title is "Online C Compiler - Programiz". The main content area is divided into two sections: a code editor on the left and an output window on the right. The code editor contains a C program that prompts the user to enter an integer and checks if it is even or odd. The output window shows the result of the program execution: "Enter an integer: 99" followed by "99 is Odd." and "=== Code Execution Successful ===". The Windows taskbar is visible at the bottom of the screen.

```
main.c
1 #include <stdio.h>
2 //gp
3 int main() {
4     int num;
5     printf("Enter an integer: ");
6     scanf("%d", &num);
7     if (num % 2 == 0) {
8         printf("%d is Even.\n", num);
9     } else {
10        printf("%d is Odd.\n", num);
11    }
12    return 0;
13 }
```

Output

```
Enter an integer: 99
99 is Odd.

=== Code Execution Successful ===
```

5} Calculating total salary based on basic. If basic ≤ 5000 da, ta and hra will be 10%,20% and 25% respectively otherwise da, ta and hra will be 15%,25% and 30% respectively.

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

```
int main() {
```

```
float basic, da, ta, hra, total;
```

```
printf("Enter basic salary: ");
```

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

```
if (basic <= 5000) {
```

```
da = 0.10 * basic;
```

```
ta = 0.20 * basic;
```

```
hra = 0.25 * basic;
```

```
} else {
```

```

da = 0.15 * basic;

ta = 0.25 * basic;

hra = 0.30 * basic;

}

total = basic + da + ta + hra;

printf("\nSalary Breakdown:\n");

printf("Basic = %.2f\n", basic);

printf("DA   = %.2f\n", da);

printf("TA   = %.2f\n", ta);

printf("HRA  = %.2f\n", hra);

printf("Total Salary = %.2f\n", total);

return 0;

}

```

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page displays a C program in the editor and its output in the right-hand pane.

Program Code (main.c):

```

1 #include <stdio.h>
2 int main() {
3     float basic, da, ta, hra, total;
4     printf("Enter basic salary: ");
5     scanf("%f", &basic);
6     if (basic <= 5000) {
7         da = 0.10 * basic;
8         ta = 0.20 * basic;
9         hra = 0.25 * basic;
10    } else {
11        da = 0.15 * basic;
12        ta = 0.25 * basic;
13        hra = 0.30 * basic;
14    }
15    total = basic + da + ta + hra;
16    printf("\nSalary Breakdown:\n");
17    printf("Basic = %.2f\n", basic);
18    printf("DA   = %.2f\n", da);
19    printf("TA   = %.2f\n", ta);
20    printf("HRA  = %.2f\n", hra);
21    printf("Total Salary = %.2f\n", total);
22    return 0;
23 }
24

```

Output:

```

Enter basic salary: 5445

Salary Breakdown:
Basic = 5445.00
DA   = 816.75
TA   = 1361.25
HRA  = 1633.50
Total Salary = 9256.50

=== Code Execution Successful ===

```

At the bottom of the browser window, there is a Windows taskbar showing the system clock as 2:41 PM on 4/19/2025, and a weather widget indicating 100°F and Sunny.

6) Write a program to check if person is eligible to marry or not (male age ≥ 21 and female age ≥ 18).

```
#include <stdio.h>

int main() {

char gender;

int age;

printf("Enter gender (M for Male, F for Female): ");

scanf(" %c", &gender);

printf("Enter age: ");

scanf("%d", &age);

if (gender >= 'a' && gender <= 'z') {

gender = gender - 32;

} // Check eligibility

if (gender == 'M') {

if (age >= 21) {

printf("You are eligible for marriage (Male, %d years old).\n", age);

} else {

printf("You are NOT eligible for marriage (Male, %d years old).\n", age);

}

} else if (gender == 'F') {

if (age >= 18) {

printf("You are eligible for marriage (Female, %d years old).\n", age);

} else {

printf("You are NOT eligible for marriage (Female, %d years old).\n", age);

}

} else {

printf("Invalid input. Please enter 'M' or 'F' for gender.\n");

}
```



```
}
```

```
return 0;
```

```
}
```

The screenshot displays a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page title is "Online C Compiler - Programiz". The interface includes a "Run" button and a "Share" link. The code editor shows a C program for marriage eligibility. The output window displays the program's execution results, indicating successful code execution.

```
main.c
1 #include <stdio.h>
2 int main() {
3     char gender;
4     int age;
5     printf("Enter gender (M for Male, F for Female): ");
6     scanf("%c", &gender);
7     printf("Enter age: ");
8     scanf("%d", &age);
9     if (gender >= 'a' && gender <= 'z') {
10        gender = gender - 32;
11    } // Check eligibility
12    if (gender == 'M') {
13        if (age >= 21) {
14            printf("You are eligible for marriage (Male, %d years old).\n", age);
15        } else {
16            printf("You are NOT eligible for marriage (Male, %d years old).\n", age);
17        }
18    } else if (gender == 'F') {
19        if (age >= 18) {
20            printf("You are eligible for marriage (Female, %d years old).\n", age);
21        } else {
22            printf("You are NOT eligible for marriage (Female, %d years old).\n", age);
23        }
24    } else {
25        printf("Invalid input. Please enter 'M' or 'F' for gender.\n");
26    }
27    return 0;
28 }
```

Output

```
Enter gender (M for Male, F for Female): f
Enter age: 21
You are eligible for marriage (Female, 21 years old).

=== Code Execution Successful ===
```

Activate Windows
Go to Settings to activate Windows.

100°F Sunny
Search
2:43 PM 4/19/2025