

Name – Gajanan Purud

## Assignment 3

1) print no fro 1to 10 use for loop

```
#include <stdio.h>

//gajanan purud

int main() {

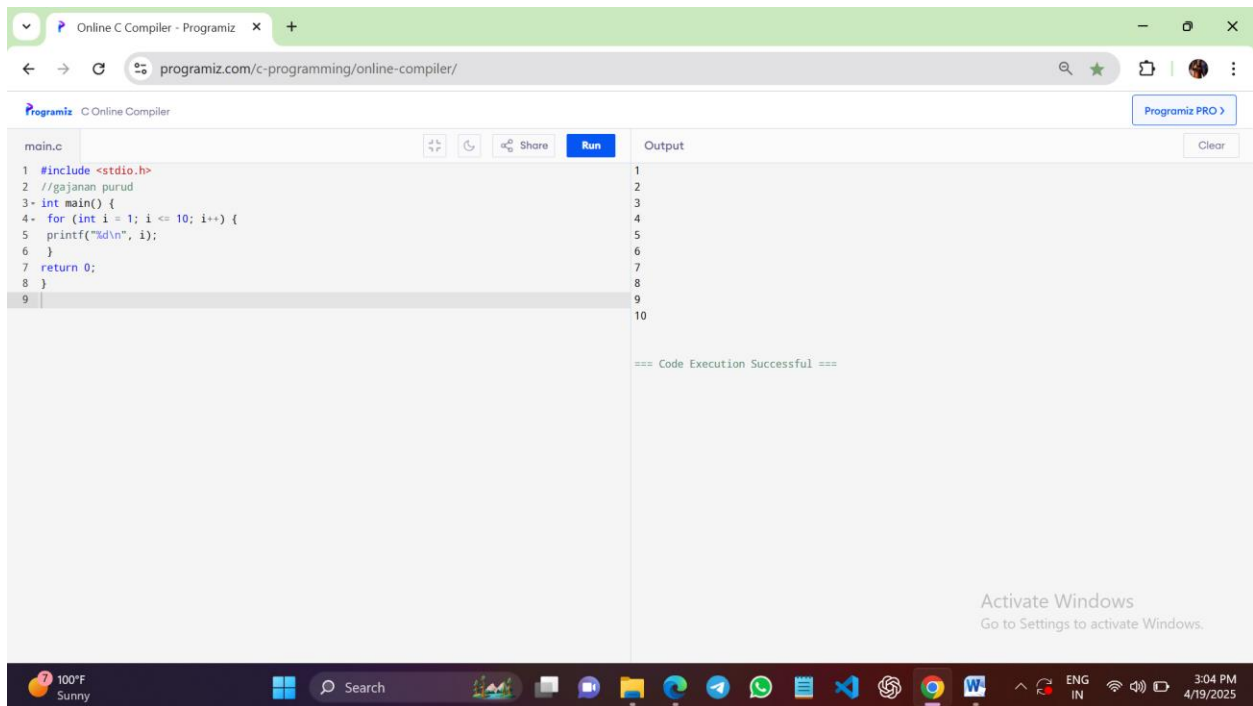
    for (int i = 1; i <= 10; i++) {

        printf("%d\n", i);

    }

    return 0;

}
```



The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page displays the C code from the previous block in a text editor. To the right of the code editor is an 'Output' window. The output window shows the numbers 1 through 10, each on a new line, followed by the message '=== Code Execution Successful ==='. The browser's address bar and various icons are visible at the top. The Windows taskbar is visible at the bottom of the screen, showing the time as 3:04 PM on 4/19/2025.

```
main.c 1 #include <stdio.h>
2 //gajanan purud
3 int main() {
4     for (int i = 1; i <= 10; i++) {
5         printf("%d\n", i);
6     }
7     return 0;
8 }
9
```

Output

```
1
2
3
4
5
6
7
8
9
10

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

2} Print table for the given number.

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

```

int main() { //gajananp

int num;

printf("Enter a number: ");

scanf("%d", &num);

printf("Multiplication Table for %d:\n", num);

for (int i = 1; i <= 10; i++) {

printf("%d x %d = %d\n", num, i, num * i);

}

return 0;}

```

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page displays the C code from the previous block in the editor, with line 5 selected. The output window on the right shows the program's execution results for the input number 56. The output is as follows:

```

Enter a number: 56
Multiplication Table for 56:
56 x 1 = 56
56 x 2 = 112
56 x 3 = 168
56 x 4 = 224
56 x 5 = 280
56 x 6 = 336
56 x 7 = 392
56 x 8 = 448
56 x 9 = 504
56 x 10 = 560

=== Code Execution Successful ===

```

At the bottom of the browser window, there is a Windows taskbar showing the date and time as 3:05 PM on 4/19/2025, along with various system icons and a search bar.

### 3) Calculate sum of numbers in the given range.

```

#include <stdio.h>

int main() {

int start, end, sum = 0;

printf("Enter the start of the range: ");

```

```

printf("Enter the end of the range: ");

scanf("%d", &end);

for (int i = start; i <= end; i++) {

sum = sum + i;

}

printf("Sum from %d to %d is: %d\n", start, end, sum);

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 on the left and its output in a panel on the right. The C program is as follows:

```

1 #include <stdio.h>
2 int main() {
3     int start, end, sum = 0;
4     printf("Enter the start of the range: ");
5     printf("Enter the end of the range: ");
6     scanf("%d", &end);
7     for (int i = start; i <= end; i++) {
8         sum = sum + i;
9     }
10    printf("Sum from %d to %d is: %d\n", start, end, sum);
11    return 0;
12 }

```

The output panel on the right shows the following text:

```

Enter the start of the range: Enter the end of the range: 2 3
Sum from 0 to 2 is: 3

=== Code Execution Successful ===

```

The Windows taskbar at the bottom shows the date and time as 3:06 PM on 4/19/2025.

#### 4) Check number is prime or not.

```

#include <stdio.h> //gajanan p

int main() {

int num, i, isPrime = 1;

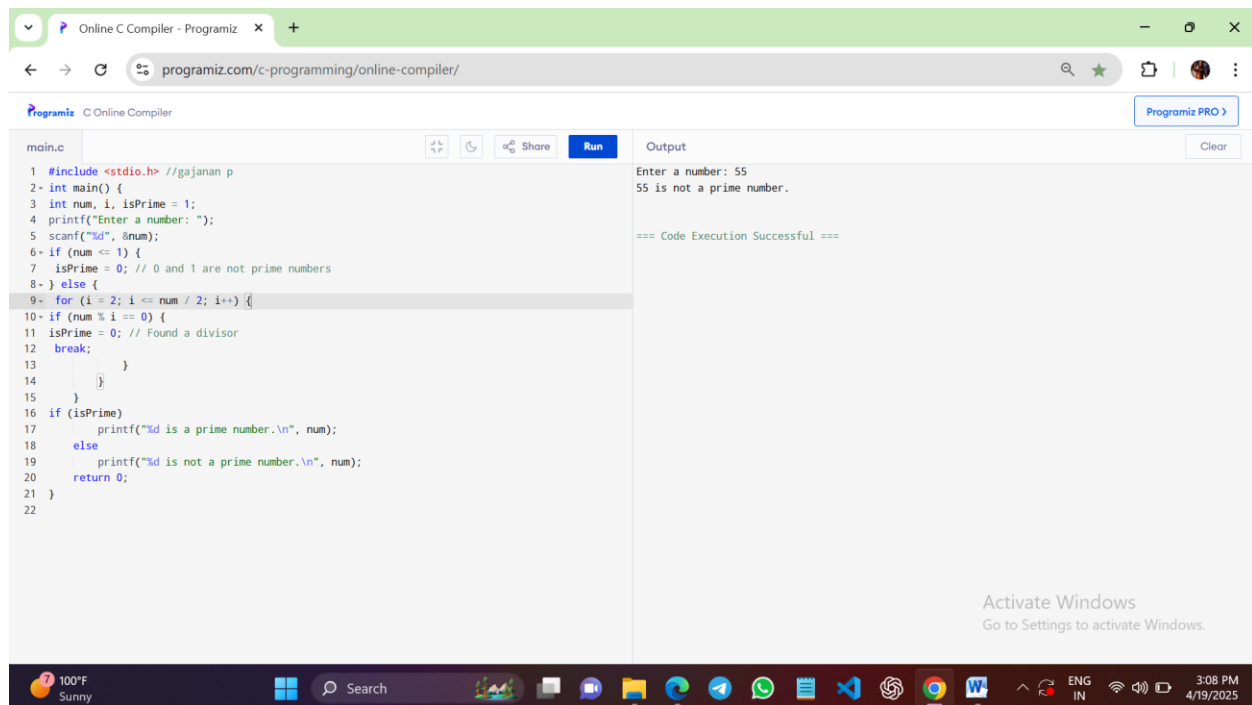
printf("Enter a number: ");

scanf("%d", &num);

```

```
if (num <= 1) {  
    isPrime = 0; // 0 and 1 are not prime numbers  
} else {  
    for (i = 2; i <= num / 2; i++) {  
        if (num % i == 0) {  
            isPrime = 0; // Found a divisor  
            break;  
        }  
    }  
}  
if (isPrime)  
    printf("%d is a prime number.\n", num);  
else  
    printf("%d is not a prime number.\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 interface includes a "Run" button and a "Share" icon. The code editor contains the following C program:

```
main.c
1 #include <stdio.h> //gajanan p
2 int main() {
3     int num, i, isPrime = 1;
4     printf("Enter a number: ");
5     scanf("%d", &num);
6     if (num <= 1) {
7         isPrime = 0; // 0 and 1 are not prime numbers
8     } else {
9         for (i = 2; i <= num / 2; i++) {
10             if (num % i == 0) {
11                 isPrime = 0; // Found a divisor
12                 break;
13             }
14         }
15     }
16     if (isPrime)
17         printf("%d is a prime number.\n", num);
18     else
19         printf("%d is not a prime number.\n", num);
20     return 0;
21 }
22
```

The output window shows the following text:

```
Enter a number: 55
55 is not a prime number.

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

At the bottom of the browser window, there is a Windows taskbar showing the date and time as 3:08 PM on 4/19/2025, and the system status as 100°F Sunny.

## 5) Check number is armstrong or not?

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

```
int main() {
```

```
int num, originalNum, remainder, result = 0;
```

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

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

```
originalNum = num;
```

```
while (originalNum != 0) {
```

```
    remainder = originalNum % 10;
```

```
    result = result + (remainder * remainder * remainder);
```

```
    originalNum = originalNum / 10;
```

```
}
```

```

    if (result == num)

printf("%d is an Armstrong number.\n", num);

else

printf("%d is not an Armstrong number.\n", num);

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 on the left and its output on the right. The program is designed to check if a 3-digit number is an Armstrong number. The user has entered '66' as input, and the output shows '66 is not an Armstrong number.' and 'Code Execution Successful'.

```

main.c
1 #include <stdio.h>
2 int main() {
3     int num, originalNum, remainder, result = 0;
4     printf("Enter a 3-digit number: ");
5     scanf("%d", &num);
6     originalNum = num;
7     while (originalNum != 0) {
8         remainder = originalNum % 10;
9         result = result + (remainder * remainder * remainder);
10        originalNum = originalNum / 10;
11    }
12    if (result == num)
13        printf("%d is an Armstrong number.\n", num);
14    else
15        printf("%d is not an Armstrong number.\n", num);
16    return 0;
17 }
18
Output
Enter a 3-digit number: 66
66 is not an Armstrong number.

=== Code Execution Successful ===

```

## 6) Check number is perfect or not.

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

```

int main() {

int num, sum = 0;

printf("Enter a number: ");

scanf("%d", &num);

for (int i = 1; i < num; i++) {

if (num % i == 0) {

    sum += i;

```

```

}

}

if (sum == num)

printf("%d is a perfect number.\n", num);

else

printf("%d is not a perfect number.\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 interface includes a 'Run' button and a 'Share' button. The code editor contains the following C code:

```

1 #include <stdio.h> // GAJANAN
2 int main() {
3     int num, sum = 0;
4     printf("Enter a number: ");
5     scanf("%d", &num);
6     for (int i = 1; i < num; i++) {
7         if (num % i == 0) {
8             sum += i;
9         }
10    }
11    if (sum == num)
12        printf("%d is a perfect number.\n", num);
13    else
14        printf("%d is not a perfect number.\n", num);
15    return 0;
16 }
17
18

```

The output window shows the following text:

```

Enter a number: 34
34 is not a perfect number.

=== Code Execution Successful ===

```

The Windows taskbar at the bottom shows the date and time as 3:11 PM on 4/19/2025, and the system temperature as 100°F Sunny.

## 7) Find factorial of number

```

#include <stdio.h>

int main() {

    int num;

    unsigned long long factorial = 1;

    printf("Enter a number: ");

    scanf("%d", &num);

```

```

if (num < 0) {

    printf("Factorial is not defined for negative numbers.\n");

} else {

for (int i = 1; i <= num; i++) {

    factorial *= i;

}printf("Factorial of %d is: %llu\n", num, factorial);

}

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 code editor on the left contains the following C code for calculating the factorial of a number:

```

1 #include <stdio.h>
2 int main() {
3     int num;
4     unsigned long long factorial = 1;
5     printf("Enter a number: ");
6     scanf("%d", &num);
7     if (num < 0) {
8         printf("Factorial is not defined for negative numbers.\n");
9     } else {
10        for (int i = 1; i <= num; i++) {
11            factorial *= i;
12        }printf("Factorial of %d is: %llu\n", num, factorial);
13    }
14    return 0;
15 }
16
17
18
19
20

```

The output window on the right shows the following text:

```

Enter a number: 6
Factorial of 6 is: 720

=== Code Execution Successful ===

```

At the bottom of the browser window, there is a Windows taskbar showing the system clock as 3:15 PM on 4/19/2025, and the weather as 100°F Sunny.

## 8) Check number is strong or not.

```

#include <stdio.h>

int main() {

int num, originalNum, digit, i, fact, sum = 0;

printf("Enter a number: ");

scanf("%d", &num);

```



```

originalNum = num;

while (num > 0) {

    digit = num % 10;

    fact = 1;

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

        fact *= i;

    }

    sum += fact;

    num /= 10;

}

if (sum == originalNum)

    printf("%d is a Strong number.\n", originalNum);

else

    printf("%d is not a Strong number.\n", originalNum);

return 0;

}

```

### 9) Check the given number is palindrome or not?use loop

```

#include <stdio.h>

int main() {

    int num, originalNum, reversed = 0, digit;

    printf("Enter a number: ");

    scanf("%d", &num);

    originalNum = num;

    for (; num != 0; num /= 10) {

```

```

        digit = num % 10;

        reversed = reversed * 10 + digit;
    }

    if (reversed == originalNum)

        printf("%d is a Palindrome number.\n", originalNum);

    else

        printf("%d is not a Palindrome number.\n", originalNum);

    return 0;
}

```

#### **10) Add the (first and last) digit of a given number?**

```

//gajanan

#include <stdio.h>

int main() {

    int num, originalNum, lastDigit, firstDigit;

    printf("Enter a number: ");

    scanf("%d", &num);

    originalNum = num;

    lastDigit = num % 10;

    while (num >= 10) {

        num = num / 10;

    } firstDigit = num;

    int sum = firstDigit + lastDigit;

    printf("First digit: %d\n", firstDigit);
}

```

```
printf("Last digit: %d\n", lastDigit);  
printf("Sum of first and last digit of %d is: %d\n", originalNum, sum);  
return 0;  
}
```