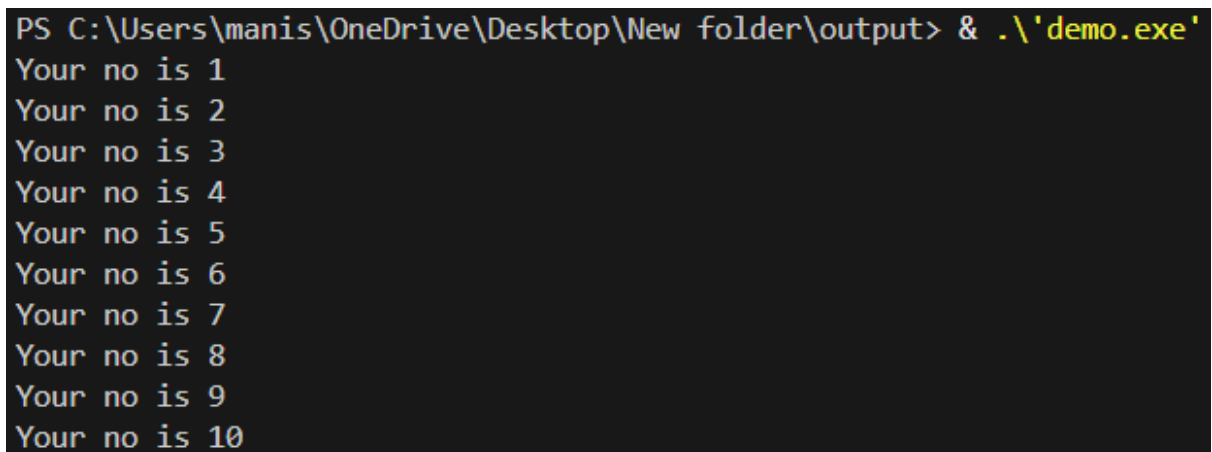


### Assignment 3

**// Q1. print numbers from 1 to 10**

```
int no = 1;
while (no<11)
{
    printf("Your no is %d\n", no);
    no++;
}
```

**Output:**

A screenshot of a Windows command prompt window. The title bar is not visible. The command prompt shows the current directory as 'C:\Users\manis\OneDrive\Desktop\New folder\output' and the command '& .\'demo.exe\'' has been executed. The output of the program is displayed as ten lines, each showing 'Your no is' followed by a number from 1 to 10.

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'
Your no is 1
Your no is 2
Your no is 3
Your no is 4
Your no is 5
Your no is 6
Your no is 7
Your no is 8
Your no is 9
Your no is 10
```

## //Q2. Print table for the given number

```
int no = 1;

int table = 4;

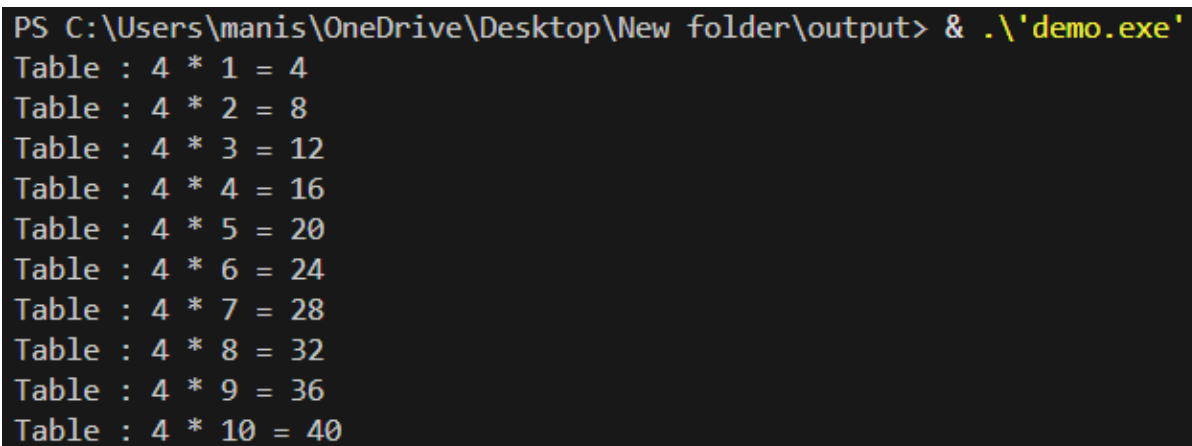
int multiplication;

while (no<11)
{
    multiplication = no * table;

    printf("Table : %d * %d = %d \n", table, no, multiplication);

    no++;
}
```

## Output:



```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'
Table : 4 * 1 = 4
Table : 4 * 2 = 8
Table : 4 * 3 = 12
Table : 4 * 4 = 16
Table : 4 * 5 = 20
Table : 4 * 6 = 24
Table : 4 * 7 = 28
Table : 4 * 8 = 32
Table : 4 * 9 = 36
Table : 4 * 10 = 40
```

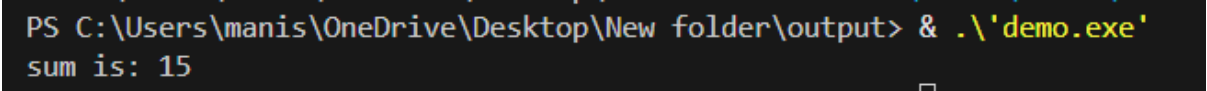
**// Q3. Calculate sum of numbers in the given range**

```
int num1 = 1;
int num2 = 5;
int sum = 0;

while (num1 <= num2)
{
    sum += num1;
    num1++;
}

printf("sum is: %d", sum);
```

**Output:**



```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'
sum is: 15
```

**// Q4. Check no is prime or not.**

```
int no = 13;
```

```
int status = 0;
```

```
int i =2;
```

```
while (i<no)
```

```
{
```

```
    if (no%i==0)
```

```
    {
```

```
        status = 1;
```

```
        break;
```

```
    }
```

```
    i++;
```

```
}
```

```
if (no<2){
```

```
    printf("No %d is not a prime no", no);
```

```
} else if (status == 0){
```

```
    printf("No %d is a prime no", no);
```

```
} else {
```

```
    printf("No %d is not a prime no", no);
```

```
}
```

## Output:

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'  
No 13 is a prime number
```

**// Q5. Check number is Armstrong or not?**

```
int no = 153;  
int original_no = no;  
int temp = no;  
int sum = 0;  
int digits = 0;
```

```
while (temp>0)  
{  
    temp = temp/10;  
    digits++;  
}
```

```
temp = no;  
int digit = 1;
```

```
while (temp>0)  
{  
    digit = temp % 10;  
    int i = 0;  
    int power =1;
```

```
    while (i<digits)  
    {
```

```
        power = power * digit;
        i++;
    }

    sum += power;
    temp = temp/10;
}

if (original_no==sum)
{
    printf("%d is armstrong no", sum);
} else
{
    printf("%d is not armstrong no", sum);
}
```

### Output:

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'
153 is armstrong no
```

**// Q6. Check number is perfect or not.**

```
int no = 28;
```

```
int temp = no;
```

```
int i = 1;
```

```
int reminder = 0;
```

```
int sum = 0;
```

```
while (i <= temp / 2) {
```

```
    reminder = temp % i;
```

```
    if (reminder == 0) {
```

```
        sum += i;
```

```
    }
```

```
    i++;
```

```
}
```

```
if (no == sum) {
```

```
    printf("%d is a perfect\n", no);
```

```
} else {
```

```
    printf("%d is not perfect\n", no);
```

```
}
```



## Output:

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'  
28 is a perfect
```

**// Q7. find factorial of number**

```
int no =5;
int factorial = 1;
while (no>=1)
{
    factorial = factorial * no;
    no--;
}

printf("Factorial of no: %d", factorial);
```

**Output:**

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'
Factorial of no: 120
```

**// Q8. Check number is strong or not.**

```
int no = 145;

int temp = no;

int digit = 0;

int sum = 0;

while (temp > 0) {
    digit = temp % 10;

    int i = 1;
    int factorial = 1;
    while (i <= digit) {
        factorial *= i;
        i++;
    }

    sum += factorial;

    temp /= 10;
}

if (no == sum) {
    printf("%d is a Strong Number\n", no);
} else {
    printf("%d is not a Strong Number\n", no);
}
```

## Output:

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'  
145 is a Strong Number
```

**// Q9. Check the no is Palindrome or not**

```
int no = 151;
int temp = no;
int remember = 0;
int reverse = 0;

while (temp>0)
{
    remember = temp% 10;
    reverse = reverse *10 + remember;
    temp = temp/10;
}

temp = no;

if (no == reverse){
    printf("no %d is a Palimdrome", no);
} else {
    printf("no %d is not a Palimdrome", no);
}
```

**Output:**

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'
no 151 is a Palimdrome
```

**// Q10. Add the (first and last) digit of the given number**

```
int no = 156;
```

```
int temp = no;
```

```
int remember = 0;
```

```
int reverse = 0;
```

```
int fistedigit, lastdigit;
```

```
while (temp>0)
```

```
{
```

```
    remember = temp% 10;
```

```
    reverse = reverse *10 + remember;
```

```
    temp = temp/10;
```

```
}
```

```
fistedigit = reverse%10;
```

```
lastdigit = no%10;
```

```
int sum_of_fist_and_last = fistedigit + lastdigit;
```

```
printf("Sum of first and last digit is: %d + %d = %d", fistedigit, lastdigit,  
sum_of_fist_and_last);
```

## Output:

```
PS C:\Users\manis\OneDrive\Desktop\New folder\output> & .\'demo.exe'  
Sum of first and last digit is: 1 + 6 = 7
```

