PF lab6 Assignment:

QNO.5 Using for-loop statement print the following series:

65536,32768,10922,2730,546,91,13,1,0

PFlab > lab6 > C lab6q5.c > main(void)

```c
#include<stdio.h>
int main(void)
{
    int i , first_value = 65536, value, n;
    printf("Enter the number of values: ");
    scanf("%d",&n);
    printf("%d,",first_value);
    for(i = 2; i <= n; i++)
    {
        value = first_value / i;
        printf("%d,",value);
        first_value = value;

    }

    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SEARCH ERROR SQL HISTORY

TERMINAL

```
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q5
Enter the number of values: 9
65536,32768,10922,2730,546,91,13,1,0,
PS C:\UNI ASSIGNMENT\pflab\lab6>
```

QNO.6Create a C program to calculate the following series using loop statements.

1,2,2,4,8,32,256,8192,207152

PFlab > lab6 > C lab6q6.c > main(void)

```c
#include<stdio.h>
int main(void)
{
    int i, f = 1, s = 2, t, n;
    printf("Enter the number of values: ");
    scanf("%d",&n);
    printf("%d,",f);
    printf("%d,",s);
    for(i = 1; i<=n; i++)
    {
        t = f * s;
        printf("%d,",t);
        f = s;
        s = t;
    }
    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SEARCH ERROR SQL HISTORY

TERMINAL

```
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q6
Enter the number of values: 7
1,2,2,4,8,32,256,8192,2097152,
PS C:\UNI ASSIGNMENT\pflab\lab6>
```

QNO.2 Write a program to check whether a given number is a multiple digit number or not.

1. Example: 123 is a multiple digit number.

2. 6 is not a multiple digit number.

PFlab > lab6 > C lab6q2.c > ...

```c
#include<stdio.h>
int main(void)
{
    int num, counter = 0;
    printf("Enter the number: ");
    scanf("%d",&num);
    while(num != 0)
    {
        num /= 10;
        counter+=1;
    }
    if(counter == 0)
    {
        printf("The number is 0");
    }
    else if(counter == 1)
    {
        printf("The number is single digit");
    }
    else {
        printf("The number is %d digit",counter);
    }
    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SEARCH ERROR SQL HISTORY

TERMINAL

```
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q2
Enter the number: 7
The number is single digit
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q2
Enter the number: 0
The number is 0
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q2
Enter the number: 576564
The number is 6 digit
```

QNO.1 Which loop system would be better for user input. Justify your answer by creating a program that takes a value and adds it to a variable and prints it repeatedly until the user enters a zero value.

Do while loop is better for user input.

PFlab > lab6 > C lab6q1.c > main(void)

```c
#include<stdio.h>
int main(void)
{
    int sum = 0, num;
    do
    {
        printf("Enter a number: ");
        scanf("%d",&num);
        sum+=num;
    } while (num != 0);
    printf("The sum is: %d",sum);

    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SEARCH ERROR SQL HISTORY

TERMINAL

```
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q1
Enter a number: 7
Enter a number: 6
Enter a number: 4
Enter a number: 5
Enter a number: 0
The sum is: 22
```

QNO.4 Write a program to print the following series: 1, 2, 3, 5, 8, 13.

PFlab > lab6 > C lab6q4.c > main(void)

```c
#include<stdio.h>
int main(void)
{
    int i , n, f=1, s=2, t;
    printf("Enter the number of terms: ");
    scanf("%d",&n);
    printf("%d,",f);
    printf("%d,",s);
    for(i = 1; i<=n; i++)
    {
        t = f + s;
        printf("%d,",t);
        f = s;
        s = t;
    }
    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SEARCH ERROR SQL HISTORY

TERMINAL

```
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q4
Enter the number of terms: 6
1,2,3,5,8,13,21,34,
PS C:\UNI ASSIGNMENT\pflab\lab6>
```

QNO.3 Using the above program integrate the number if it is a prime or composite number.

PFlab > lab6 > C lab6q3.c > main(void)

```c
#include<stdio.h>
int main(void)
{
    int i, n, counter = 0;
    printf("Enter the number: ");
    scanf("%d",&n);
    for(i = 1; i<=n; i++)
    {
        if(n%i == 0)
        {
            counter += 1;
        }
    }
    if(counter == 2)
    {
        printf("%d is a prime number",n);
    }
    else if(counter > 2)
    {
        printf("%d is composite number",n);
    }
    else {
        printf("%d is neither prime nor composite number",n);
    }
    return 0;
}
```

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL SEARCH ERROR SQL HISTORY

TERMINAL

```
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q3
Enter the number: 90
90 is composite number
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q3
Enter the number: 89
89 is a prime number
PS C:\UNI ASSIGNMENT\pflab\lab6> .\lab6q3
Enter the number: 0
0 is neither prime nor composite number
```