

PF-LAB-6-ASSIGNMENT

PROBLEM:1

```
p1.c > main()
1  #include <stdio.h>
2  void main() {
3      int num, sum = 0;
4      do{
5          printf("\nEnter a number: ");
6          scanf("%d", &num);
7          sum = sum + num;
8          printf("\nSum= %d", sum);
9      }
10     while(num != 0);
11     printf("\nTotal sum is: %d", sum);
12 }
```

```
OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>gcc p1.c -o p1.exe

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p1.exe

Enter a number: 34

Sum= 34
Enter a number: 3656

Sum= 3690
Enter a number: 23

Sum= 3713
Enter a number: -56

Sum= 3657
Enter a number: -786

Sum= 2871
Enter a number: 0

Sum= 2871
Total sum is: 2871
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>
```

PROBLEM:2

```
C p2.c > main()
1  #include <stdio.h>
2  void main() {
3      int i, num, digit;
4      printf("Enter a number: ");
5      scanf("%d", &num);
6      i = num;
7      while(i != 0) {
8          i /= 10;
9          digit++;
10     }
11     if(digit > 1) {
12         printf("%d is a multiple digit number.", num);
13     } else {
14         printf("%d is not a multiple digit number.", num);
15     }
16 }
```

OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>gcc p2.c -o p2.exe
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p2.exe
```

```
Enter a number: 24
```

```
24 is a multiple digit number.
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p2.exe
```

```
Enter a number: 4
```

```
4 is not a multiple digit number.
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>
```

PROBLEM:3

```
p3.c > main()
1  #include <stdio.h>
2  void main() {
3      int i, num, digit;
4      printf("Enter a number: ");
5      scanf("%d", &num);
6      i = num;
7      while(i != 0) {
8          i /= 10;
9          digit++;
10     }
11     if(num == 1) {
12         printf("%d is neither prime nor composite number.", num);
13     }
14     else if(digit > 1) {
15         if(num % 2 == 0) {
16             printf("%d is a multiple digit composite number.", num);
17         } else if(num % 3 == 0 || num % 5 == 0 || num % 7 == 0 || num % 9 == 0) {
18             printf("%d is a multiple digit composite number.", num);
19         } else {
20             printf("%d is a multiple digit prime number.", num);
21         }
22     } else if(digit == 1) {
23         if(num % 2 == 0) {
24             if(num == 2) {
25                 printf("%d is a prime number but not a multiple digit.", num);
26             } else {
27                 printf("%d is a composite number but not a multiple digit.", num);
28             }
29         } else if(num % 2 != 0) {
30             if(num % 3 == 0 && num % 9 == 0) {
31                 printf("%d is a composite number but not a multiple digit.", num);
32             } else {
33                 printf("%d is a prime number but not a multiple digit.", num);
34             }
35         }
36     }
37 }
```

```
    }  
    }  
} else {  
    printf("Given number is ZERO.");  
}  
}
```

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>gcc p3.c -o p3.exe

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p3.exe

Enter a number: 37

37 is a multiple digit prime number.

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p3.exe

Enter a number: 1

1 is neither prime nor composite number.

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p3.exe

Enter a number: -24

-24 is a multiple digit composite number.

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p3.exe

Enter a number: -7

-7 is a prime number but not a multiple digit.

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p3.exe

Enter a number: 9

9 is a composite number but not a multiple digit.

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>

PROBLEM:4

```
C p4.c > main()
1  #include <stdio.h>
2  void main() {
3      int a=1, b=2, i;
4      while (a <= 13)
5      {
6          printf("%d, ", a);
7          i = a + b;
8          a = b;
9          b = i;
10     }
11 }
```

OUTPUT DEBUG CONSOLE TERMINAL PORTS

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>gcc p4.c -o p4.exe

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p4.exe

1, 2, 3, 5, 8, 13,

D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>

PROBLEM:5

```
C p5.c > main()
1  #include <stdio.h>
2  void main()
3  {
4      int t1=65536;
5      for(int i=2;i<=10;i++)
6      {
7          printf("%d, ",t1);
8          t1/=i;
9      }
10 }
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>gcc p5.c -o p5.exe
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p5.exe
```

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

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>
```

PROBLEM:6

```
c p6.c > main()
1  #include <stdio.h>
2  void main()
3  {
4      int n1=1,n2=2,prod;
5      printf("%d, %d, ",n1,n2);
6      for(int i=1;i<8;i++)
7      {
8          prod=n1*n2;
9          printf("%d, ",prod);
10         n1=n2;
11         n2=prod;
12     }
13 }
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>gcc p6.c -o p6.exe
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>p6.exe
```

```
1, 2, 2, 4, 8, 32, 256, 8192, 2097152,
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-6>
```