KARTHIK KRISHNAN
S2 CSE B
ROLL: 45

TUTORIALS – 6

(MODULE – 2)

1. Countdown:
Print numbers from 10 to 1 using a while loop.

main.c

Save Run

```c
//MODULE - 2, TUTORIALS - 7
//1. Countdown:
//Print numbers from 10 to 1 using a while loop.
#include <stdio.h>
int main()
{
    int a = 10;
    while (a<11, a>0)
    {
        printf("Value of a:%d\n", a);
        a--;
    }
    return 0;
}
```

Output

```
/tmp/VX4c7aDKwK.o
Value of a:10
Value of a:9
Value of a:8
Value of a:7
Value of a:6
Value of a:5
Value of a:4
Value of a:3
Value of a:2
Value of a:1
```

2. Sum of Natural Numbers:
Calculate the sum of the first N natural numbers using a while loop.

main.c

Save Run

```c
//MODULE - 2, TUTORIALS - 7
//1. Sum of Natural Numbers:
//Calculate the sum of the first N natural numbers using a while loop
.
int main()
{
    int i = 1;
    int n;
    int sum = 0;
    printf("Enter the value of N to find the sum of First N Natural
        Numbers:");
    scanf("%d",&n);
    while(i<=n)
    {
        sum=sum+i;
        i++;
    }
    printf("The sum of first %d Natural numbers is %d",n,sum);
    return 0;
}
```

Output

```
/tmp/SGcMm6HJ4J.o
Enter the value of N to find the sum of First N Natural Numbers:45
The sum of first 45 Natural numbers is 1035
```

3. Factorial (5!=1*2*3*4*5)
Compute the factorial of a given number using a while loop.

main.c

Save Run

```c
//MODULE - 2, TUTORIALS - 7
//3. Factorial (5!=1*2*3*4*5)
//Compute the factorial of a given number using a while loop.
#include <stdio.h>
int main()
{
    int num;
    int i=1;
    int factorial=1;
    printf("Enter a number to find the factorial:");
    scanf("%d",&num);
    while(i<=num)
    {
        factorial=factorial*i;
        i++;
    }
    printf("The Factorial of %d is %d",num,factorial);
    return 0;

}
```

Output

```
/tmp/WdmYdDd71t.o
Enter a number to find the factorial:5
The Factorial of 5 is 120
```

4. Even Numbers:
Print all even numbers between 1 and 20 using a while loop.

main.c

Save Run

```c
//MODULE - 2, TUTORIALS - 7
//4. Even Numbers:
//Print all even numbers between 1 and 20 using a while loop.
#include <stdio.h>
int main()
{
    int i=1;
    while(i<=20)
    {
        if(i%2==0)
        printf("%d\n",i);
        i++;
    }
    return 0;
}
```

Output

```
/tmp/6eJDC2GTZ5.o
2
4
6
8
10
12
14
16
18
20
```

5. Table of a Number (n*i= n*I format to print the output)
Display the multiplication table of a given number using a while loop.

main.c

Save Run

```c
//MODULE - 2, TUTORIALS - 7
//5. Table of a Number (n*i= n*I format to print the output)
//Display the multiplication table of a given number using a while
    loop.
#include <stdio.h>
int main()
{int i=1,n,multiply;
printf("Enter the value of n to display its multiplication table:");
scanf("%d",&n);
while(i<=10)
{
    multiply=i*n;
    printf("%d*%d=%d\n",n,i,multiply);
    i++;
}
return 0;
}
```

Output

```
/tmp/4tWe4ApBcI.o
Enter the value of n to display its multiplication table:2
2*1=2
2*2=4
2*3=6
2*4=8
2*5=10
2*6=12
2*7=14
2*8=16
2*9=18
2*10=20
```

6. Reverse a Number:
Reverse the digits of a given number using a while loop.