

Tutorial 2

Name: Aditi Singh
Roll no. 16010123020
Batch: C1_1


Q1

Code

```
#include<stdio.h>
int main()
{
    int a,n;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020\n\n");
    printf("Enter number: ");
    scanf("%d",&a);
    n=0;
    while (a>0)
    {
        n=n+a%10;
        a=a/10;
    }

    printf("Sum of digits is: %d",n);
    return 0;
}
```

Output

 "C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q1.exe"

```
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 456
Sum of digits is: 15
Process returned 0 (0x0)   execution time : 4.792 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q1.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020

Enter number: 54
Sum of digits is: 9
Process returned 0 (0x0)   execution time : 4.915 s
Press any key to continue.
_
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q1.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020

Enter number: 7864
Sum of digits is: 25
Process returned 0 (0x0)   execution time : 3.817 s
Press any key to continue.
_
```

Q2

Code

```
#include<stdio.h>
int main()
{
    int a,n;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
\n\n");
    printf("Enter number: ");
    scanf("%d",&n);
    printf("Even numbers till %d are: ",n);
    a=0;
    while (a<=n)
    {
        if (a%2==0)
        {
            printf("\n%d",a);
        }
        a=a+1;
    }
    return 0;
}
```

Output

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q2.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 5
Even numbers till 5 are:
0
2
4
Process returned 0 (0x0)   execution time : 3.309 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q2.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 10
Even numbers till 10 are:
0
2
4
6
8
10
Process returned 0 (0x0)   execution time : 3.780 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q2.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 6
Even numbers till 6 are:
0
2
4
6
Process returned 0 (0x0)   execution time : 2.503 s
Press any key to continue.
```

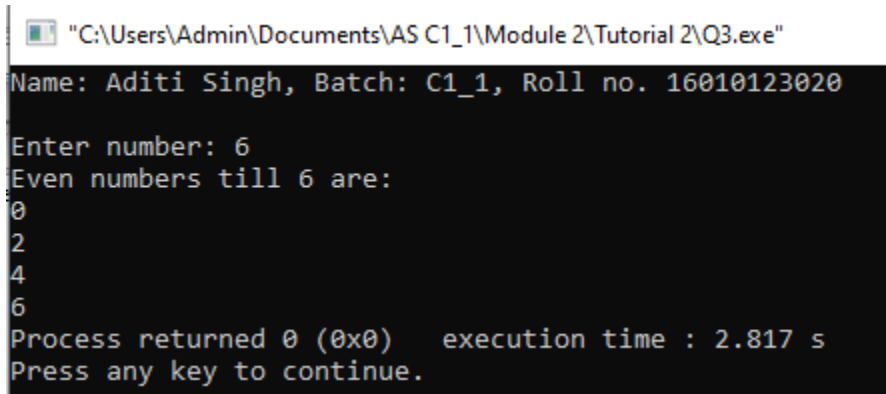
Q3

Code

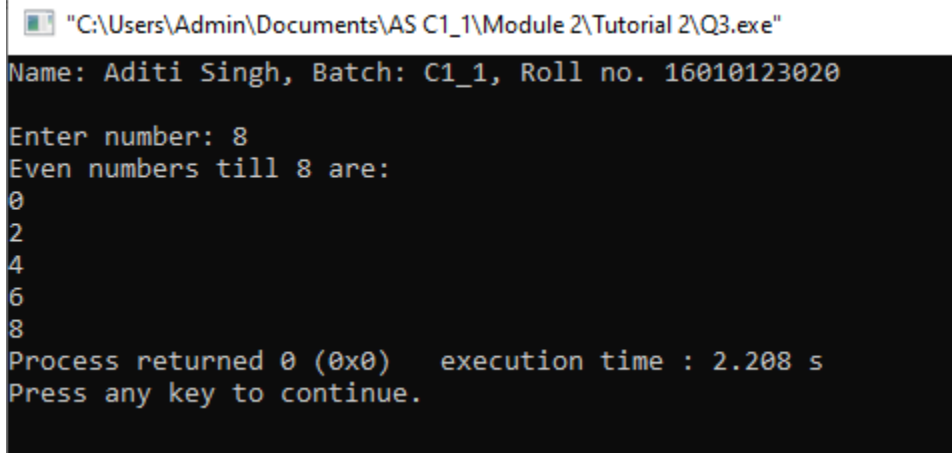
```
#include<stdio.h>
int main()
{
    int a,n;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
\n\n");
    printf("Enter number: ");
```

```
scanf("%d",&n);
printf("Even numbers till %d are: ",n);
a=0;
for(a;a<=n;a++)
{
    if (a%2==0)
    {
        printf("\n%d",a);
    }
}
return 0;
}
```

Output



```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q3.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 6
Even numbers till 6 are:
0
2
4
6
Process returned 0 (0x0)   execution time : 2.817 s
Press any key to continue.
```



```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q3.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 8
Even numbers till 8 are:
0
2
4
6
8
Process returned 0 (0x0)   execution time : 2.208 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q3.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 15
Even numbers till 15 are:
0
2
4
6
8
10
12
14
Process returned 0 (0x0)   execution time : 2.138 s
Press any key to continue.
```

Q4

Code

```
#include<stdio.h>
int main()
{
    int a,f,s,n;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
\n\n");
    printf("Enter number: ");
    scanf("%d",&n);
    printf("Fibonacci numbers till %d are: ",n);
    f=0;
    s=1;
    a=0;
    while (n>0)
    {
        printf("\n%d",f);
        a=f+s;
        f=s;
        s=a;
        n=n-1;
    }
    return 0;
}
```

Output

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q4.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 8
Fibonacci numbers of 8 terms are:
0
1
1
2
3
5
8
13
Process returned 0 (0x0)   execution time : 4.852 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q4.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 5
Fibonacci numbers of 5 terms are:
0
1
1
2
3
Process returned 0 (0x0)   execution time : 1.737 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q4.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 3
Fibonacci numbers of 3 terms are:
0
1
1
Process returned 0 (0x0)   execution time : 3.495 s
Press any key to continue.
```

Q5

Code

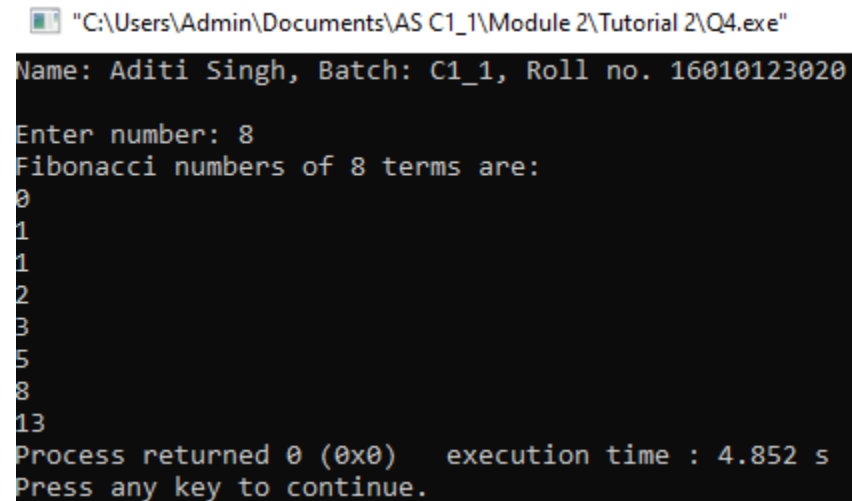
```
#include<stdio.h>
int main()
```

```

{
    int a,f,s,n;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
\n\n");
    printf("Enter number of terms: ");
    scanf("%d",&n);
    printf("Fibonacci numbers till %d are: ",n);
    f=0;
    s=1;
    a=0;
    for(;n>0;n--)
    {
        printf("\n%d",f);
        a=f+s;
        f=s;
        s=a;
    }
}

```

Output



```

"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q4.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 8
Fibonacci numbers of 8 terms are:
0
1
1
2
3
5
8
13
Process returned 0 (0x0) execution time : 4.852 s
Press any key to continue.

```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q4.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 3
Fibonacci numbers of 3 terms are:
0
1
1
Process returned 0 (0x0)   execution time : 3.495 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q5.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number of terms: 6
Fibonacci numbers till 6 are:
0
1
1
2
3
5
Process returned 0 (0x0)   execution time : 1.739 s
Press any key to continue.
```

Q6

Code

```
#include<stdio.h>
int main()
{
    int a,n,f;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020\n\n");
    printf("Enter number: ");
    scanf("%d",&n);
    a=1;
    f=1;
    do
    {
        f=f*a;
        a=a+1;
    }
    while (a<=n);
    printf("Factorial of the number is: %d",f);
    return 0;
```


}

Output

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q6.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 5
Factorial of the number is: 120
Process returned 0 (0x0)   execution time : 1.666 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q6.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 8
Factorial of the number is: 40320
Process returned 0 (0x0)   execution time : 3.490 s
Press any key to continue.
```

```
"C:\Users\Admin\Documents\AS C1_1\Module 2\Tutorial 2\Q6.exe"
Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
Enter number: 2
Factorial of the number is: 2
Process returned 0 (0x0)   execution time : 1.351 s
Press any key to continue.
```

Q7

Code

```
#include<stdio.h>
void main()
{
    int i,j,r,c;
    printf("\nAditi Singh C1_1 16010123020");
    printf("\nEnter no. of rows and coloumns: ");
    scanf("%d %d",&r,&c);
    int arr1[r][c];
    int arr2[r][c];
    printf("\nEnter elements of Matrix 1: ");
    for(i=0;i<r;i++)
    {
        for(j=0;j<c;j++)
```

```

        {
            scanf("%d",&arr1[i][j]);
        }
    }
    printf("\nMatrix 1 is: \n");
    for(i=0;i<r;i++)
    {
        for(j=0;j<c;j++)
        {
            printf("%d",arr1[i][j]);
            printf("\t");
        }
        printf("\n");
    }

    printf("\nEnter elements of Matrix 2: ");
    for(i=0;i<r;i++)
    {
        for(j=0;j<c;j++)
        {
            scanf("%d",&arr2[i][j]);
        }
    }
    printf("\nMatrix 2 is: \n");
    for(i=0;i<r;i++)
    {
        for(j=0;j<c;j++)
        {
            printf("%d",arr2[i][j]);
            printf("\t");
        }
        printf("\n");
    }

    int sum[r][c];
    for(i=0;i<r;i++)
    {
        for(j=0;j<c;j++)
        {
            sum[i][j]=arr1[i][j]+arr2[i][j];

```

```

        }
    }
    printf("\nSum of matrices is: \n");
    for(i=0;i<r;i++)
    {
        for(j=0;j<c;j++)
        {
            printf("%d",sum[i][j]);
            printf("\t");
        }
        printf("\n");
    }
}

```

Output

```

Aditi Singh C1_1 16010123020
Enter no. of rows and coloumns: 2 2
Enter elements of Matrix 1: 1 2 3 4
Matrix 1 is:
1   2
3   4

Enter elements of Matrix 2: 4 5 6 7
Matrix 2 is:
4   5
6   7

Sum of matrices is:
5   7
9   11

```

```
/tmp/Qf0A6w6lny.o
Aditi Singh C1_1 16010123020
Enter no. of rows and coloumns: 3 3
Enter elements of Matrix 1: 1 2 3 4 5 6 7 8 9
Matrix 1 is:
1  2  3
4  5  6
7  8  9

Enter elements of Matrix 2: 2 3 4 5 6 7 8 9 1
Matrix 2 is:
2  3  4
5  6  7
8  9  1

Sum of matrices is:
3  5  7
9  11 13
15 17 10
```

```
/tmp/Qf0A6w6lny.o
Aditi Singh C1_1 16010123020
Enter no. of rows and coloumns: 2 2
Enter elements of Matrix 1: 2 3 4 5
Matrix 1 is:
2  3
4  5

Enter elements of Matrix 2: 4 5 6 7
Matrix 2 is:
4  5
6  7

Sum of matrices is:
6  8
10 12
```