Tutorial 2

Name: Aditi Singh
Roll no. 16010123020
Batch: C1_1

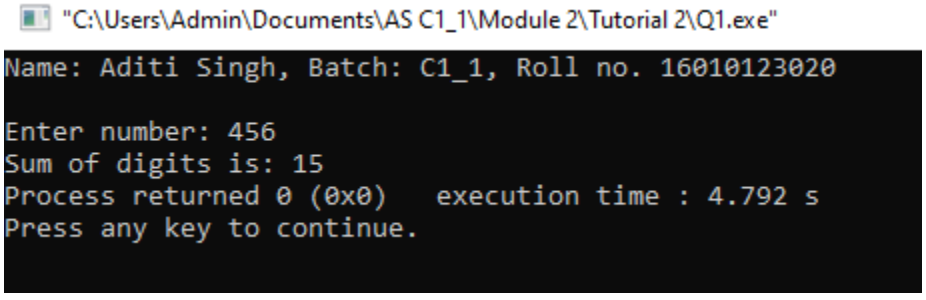
Q1

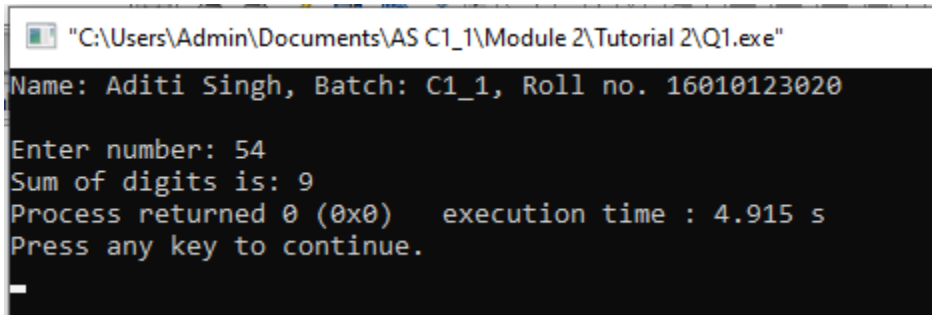
Code

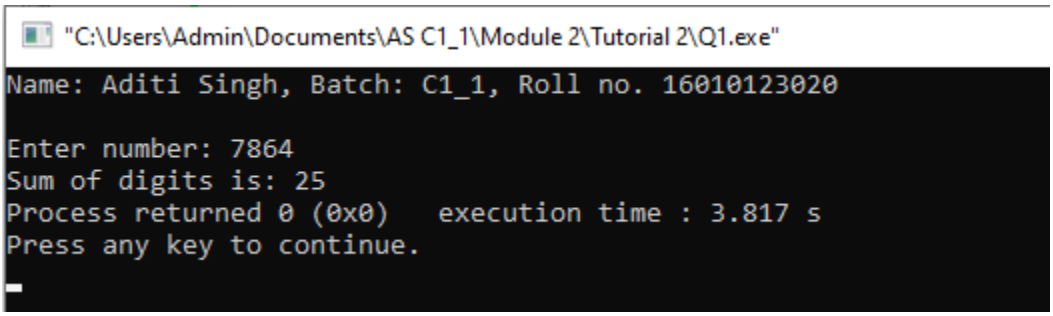
```
#include<stdio.h>
int main()
{
    int a,n;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
\n\n");
    printf("Enter number: ");
    scanf("%d",&a);
    n=0;
    while (a>0)
    {
        n=n+a%10;
        a=a/10;
    }

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

Output





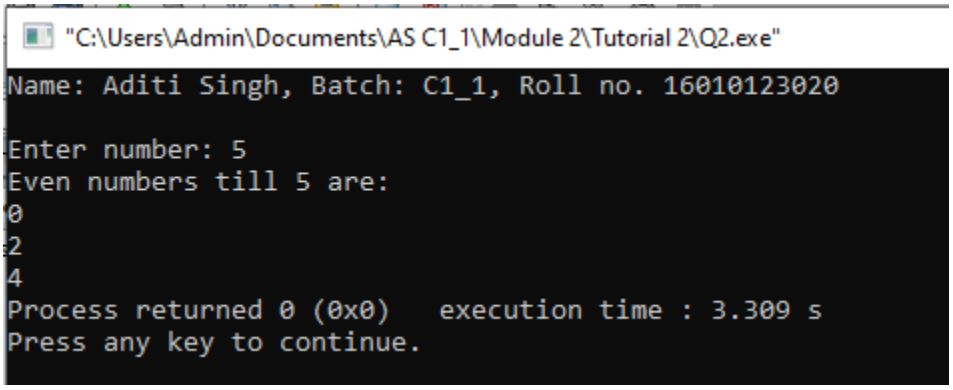


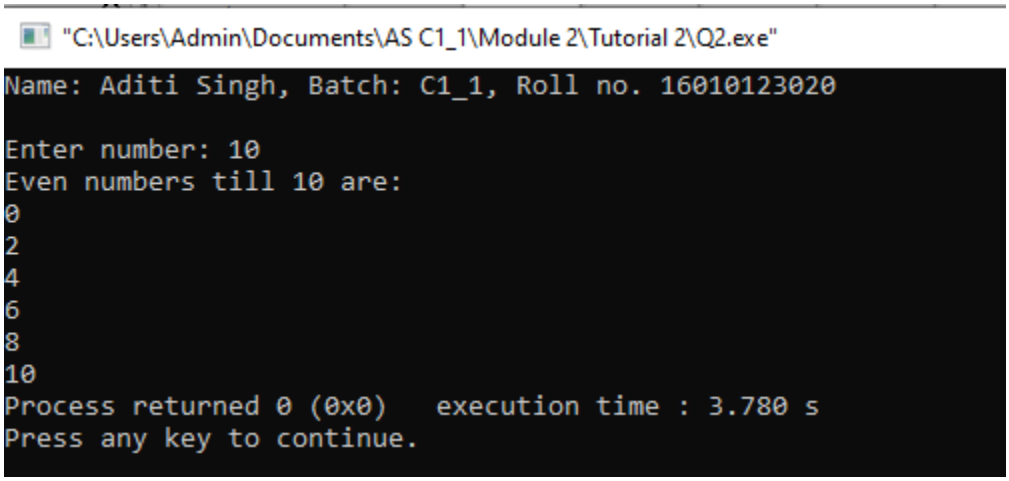
Q2

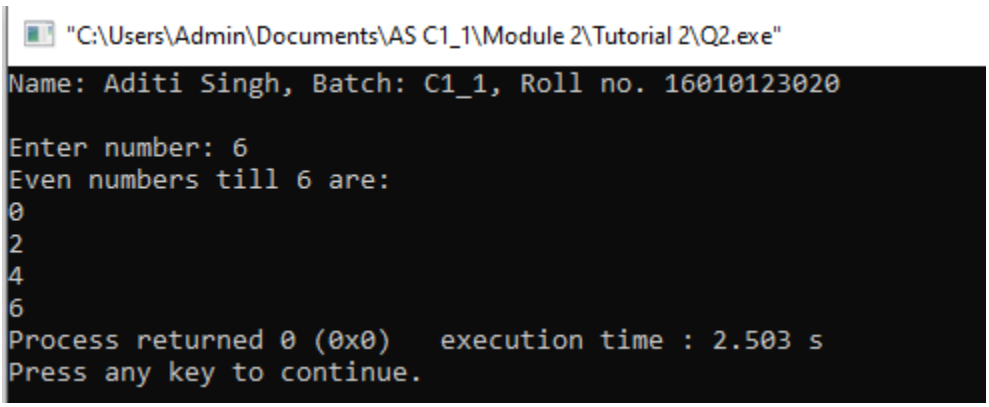
Code

```
#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







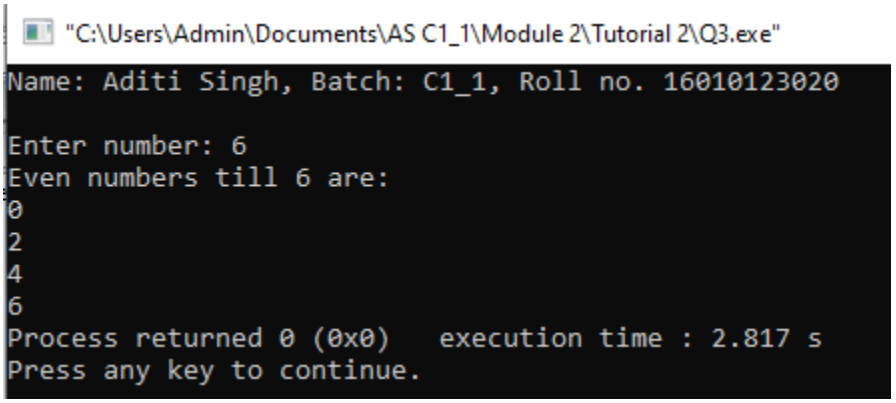
Q3

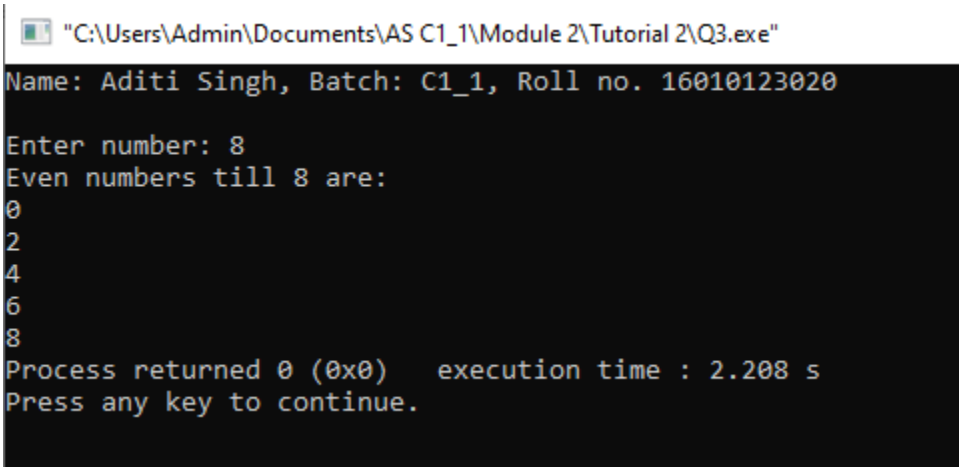
Code

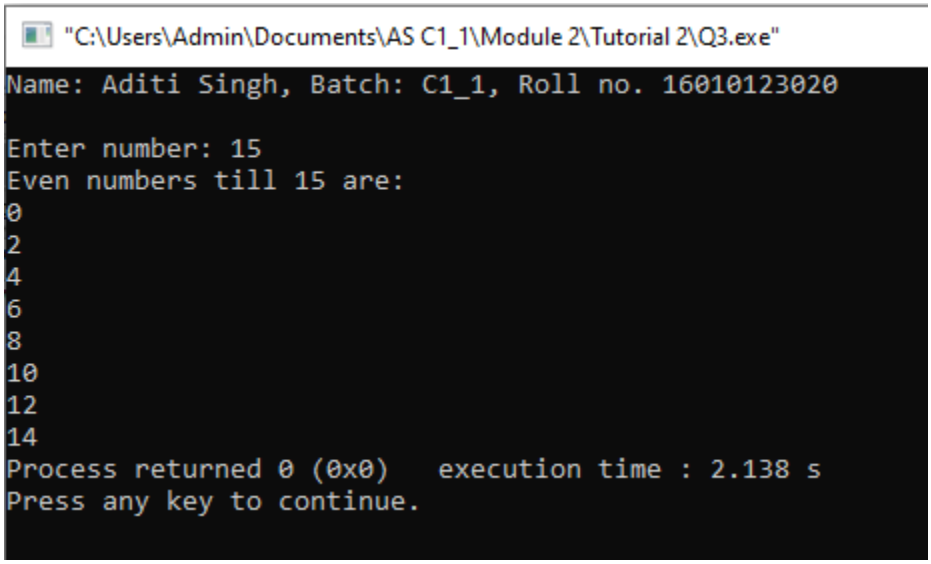
```
#include<stdio.h>
int main()
{
    int a,n;
    printf("Name: Aditi Singh, Batch: C1_1, Roll no. 16010123020
\n\n");
    printf("Enter number: ");
```

```
    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





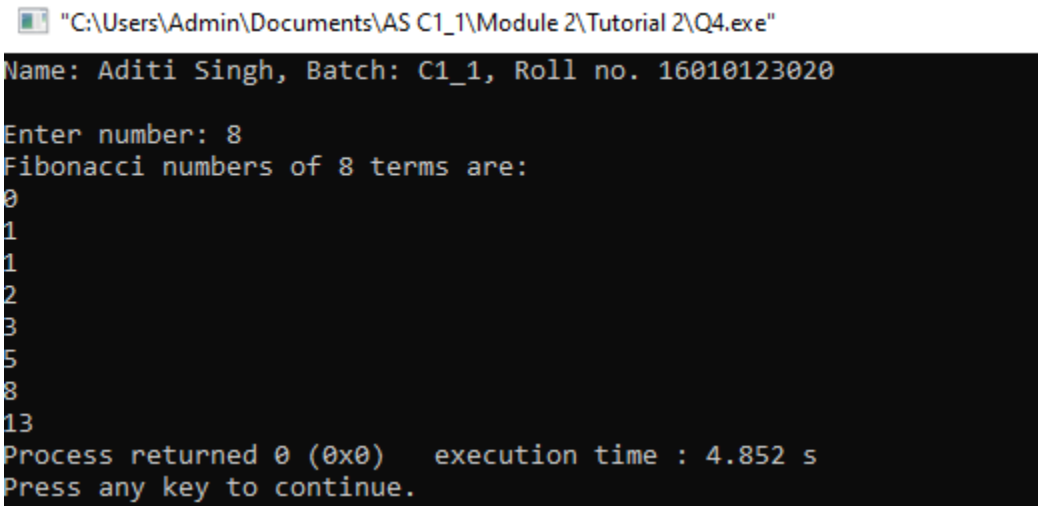


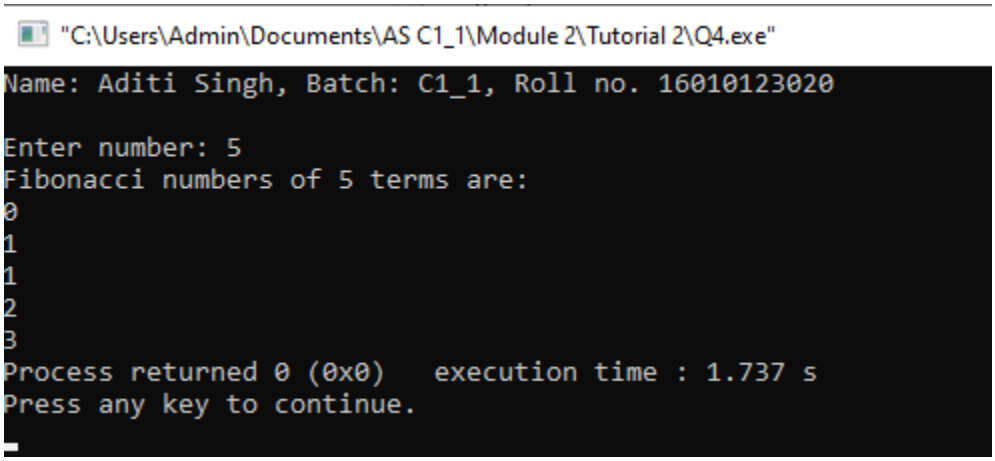
Q4

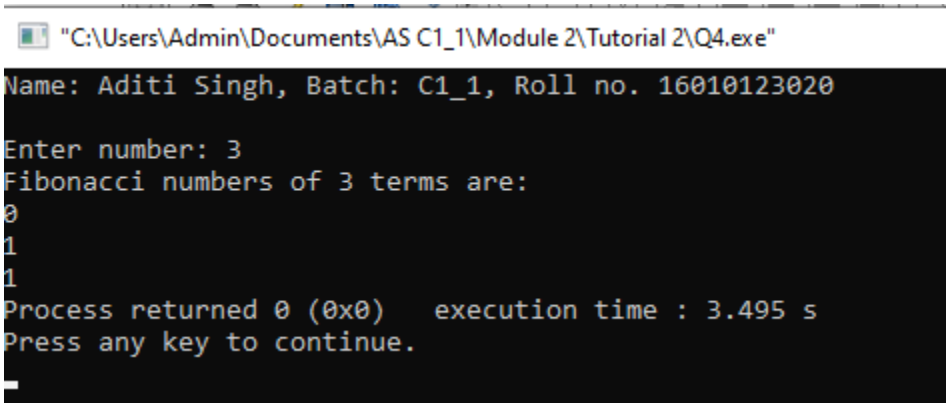
Code

```
#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







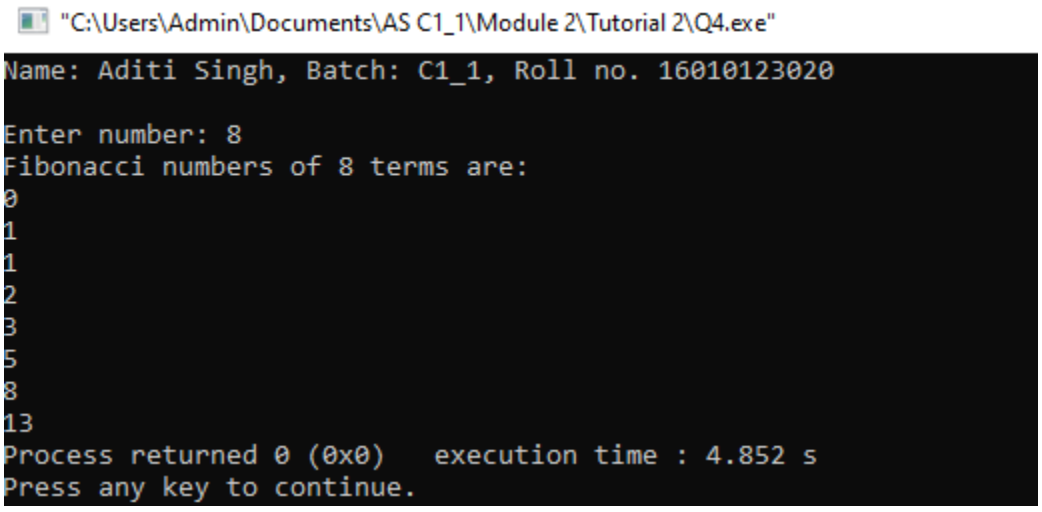
Q5

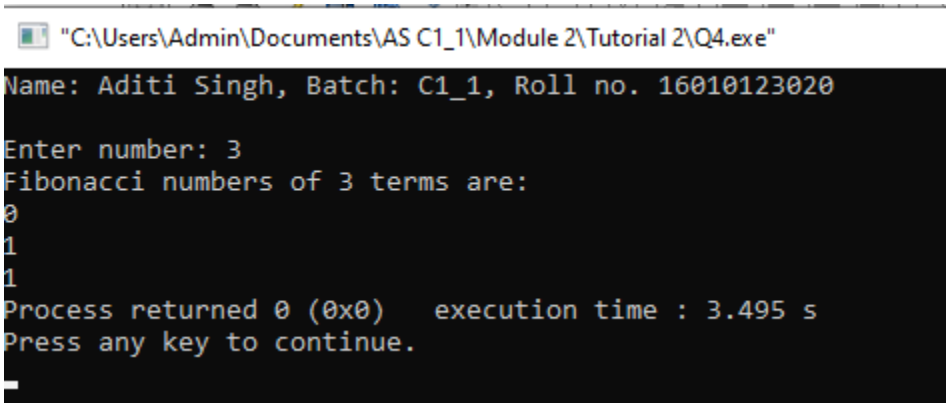
Code

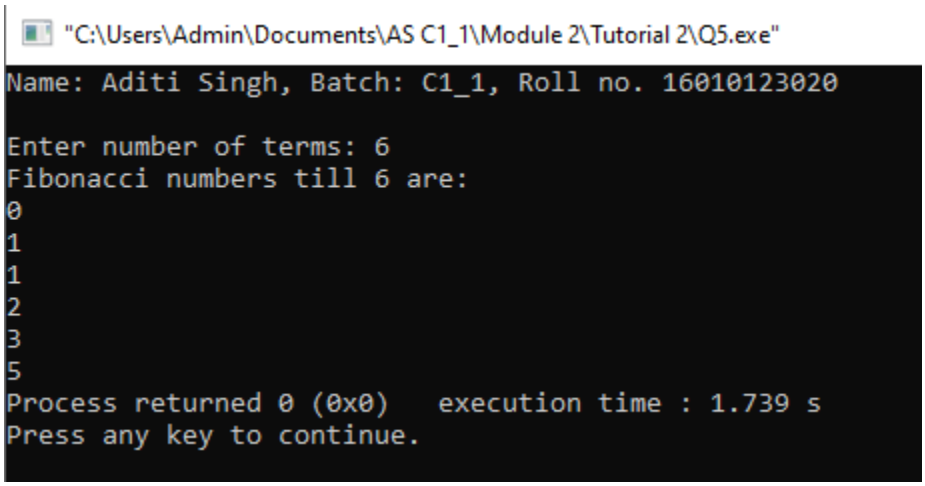
```
#include<stdio.h>
int main()
```

```
{
    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







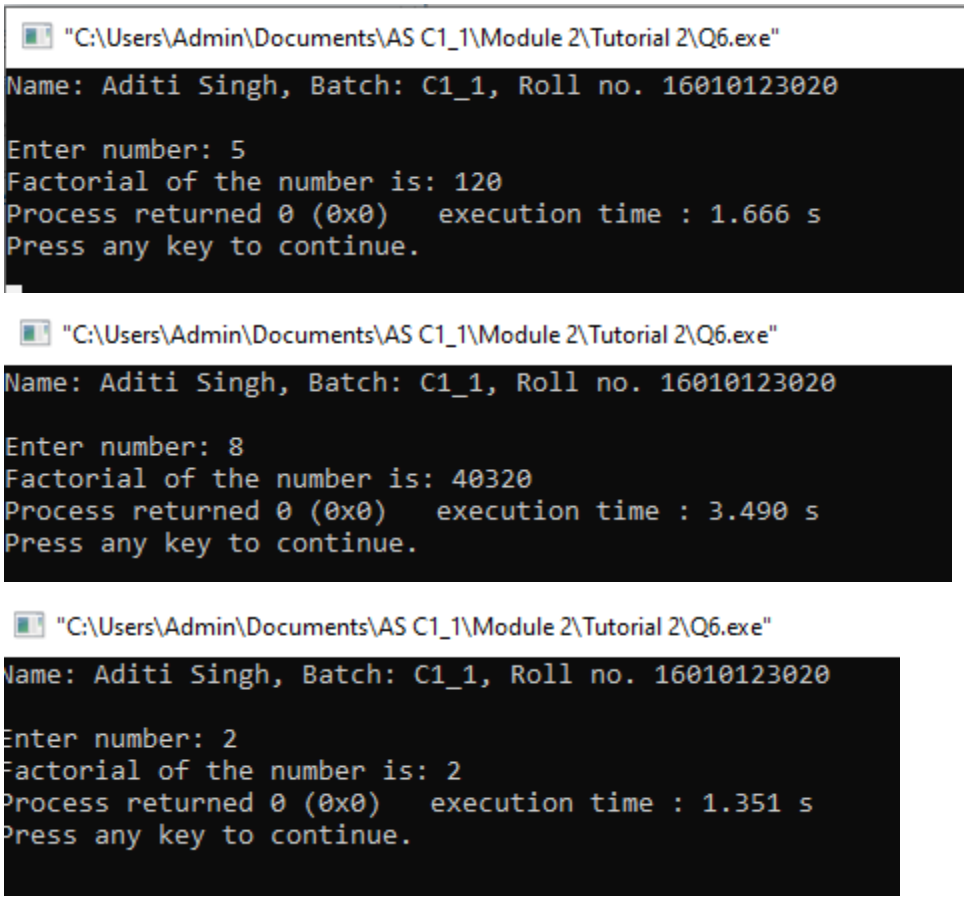
Q6

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



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/QfOA6w6lny.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/QfOA6w6lny.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
```