Type 1

```c
//Fibonacci series using functions
#include <stdio.h>
int fibo(int n)
{
  if(n==1)
   return 0;
  else
  {
    if(n==2)
     return 1;
    else
     return (fibo(n-1)+fibo(n-2));
  }
}
int main() {
    int n,i,term;
    printf("\nEnter element counts of series:"
        );
    scanf("%d",&n);
    for(i=1;i<=n;i++)
   {
    term=fibo(i);
    printf("%d,",term);
   }
}
```

```
Enter element counts of series:7
0,1,1,2,3,5,8,
```

```c
//Fibonacci series using functions
#include <stdio.h>
int fibo(int n)
{
  if(n==1)
   return 0;
  else
  {
    if(n==2)
     return 1;
    else
     return (fibo(n-1)+fibo(n-2));
  }
}
int main() {
    int n,i,term;
    printf("\nEnter element counts of series:"
        );
    scanf("%d",&n);
    for(i=1;i<=n;i++)
   {
    term=fibo(i);
    printf("%d,",term);
   }
}
```

```
Enter element counts of series:2
0,1,
```

n = 2

fibo(1)

↓

return 0;

↓

fibo(0)

↓

return 1;

n = 3

fibo(1)

↓

return 0

↓

fibo(2)

↓

return 1

↓

fibo(3)

↓

fibo(2) + fibo(1)

0 + 1 = 1

fibo(5) if(n=5)

↓

fibo(4) + fibo(3) (2+1=3)

↙ ↓ return 1

fibo(3) + fibo(2) (1+1=2)

↙ ↘

fibo(2) + fibo(1) return 1;

return 1 return 0

0 + 1 = 1

↘

answer = 0, 1, 1, 2, 3

Type 2

```c
#include <stdio.h>
int first=0,second=1;
int fibo(int n)
{ int u=0,sum;
  if(n-2==u)
   return 0;
  else
  { sum=first+second;
  first=second,second=sum;
  printf(",%d",sum);
   return fibo(n-1);
  }
}
int main() {
    int n;
    printf("\nEnter element counts of series:"
        );
    scanf("%d",&n);
    printf("%d,%d",first,second);
    fibo( n);
    return 0;
}
```

```
Enter element counts of series:10
0,1,1,2,3,5,8,13,21,34
```

```c
#include <stdio.h>
int first=0,second=1;
int fibo(int n)
{ int u=0,sum;
  if(n-2==u)
   return 0;
  else
  { sum=first+second;
  first=second,second=sum;
  printf(",%d",sum);
   return fibo(n-1);
  }
}
int main() {
    int n;
    printf("\nEnter element counts of series:"
        );
    scanf("%d",&n);
    printf("%d,%d",first,second);
    fibo( n);
    return 0;
}
```

```
Enter element counts of series:6
0,1,1,2,3,5
```