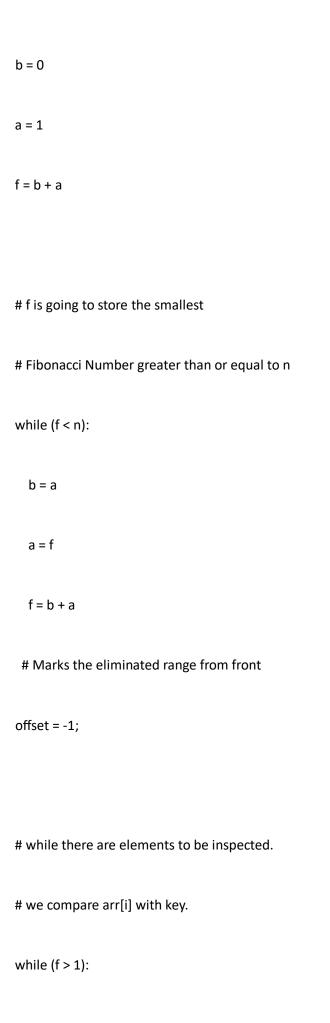
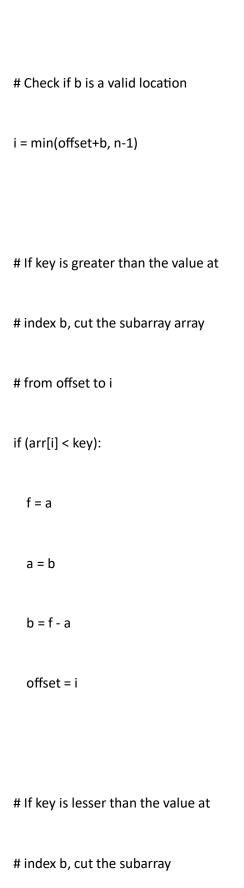
```
def Linsearch(arr,x):
  for i in range(len(arr)):
    if arr[i] == x:
       return i
       return -1
def Sentsearch(arr,x):
 I = len(arr)
  arr.append(x)
  i = 0
  while(arr[i]!=x):
    i = i+1
  if(i!=I):
    return i
  else:
    return -1
#Driver Code
print("\nHow many Students are there?")
n = int(input())
```

```
array = []
i=0
for i in range(n):
  print("\n Enter roll number: ")
item = int(input())
array.append(item)
print("The Roll Numbers of Students are ...\n")
print(array)
while(True):
  print("Main Menu")
print("\n 1. Linear Search")
print("\n 2. Sentinel Search")
print("\n 3. Exit")
print("\n Enter your choice: ")
choice = int(input())
if(choice == 1):
  print("\n Enter the roll number to search if student has attended the training program or not? ")
  key = int(input())
  location = Linsearch(array,key)
  if(location !=-1):
    print("Yes, the student attended the training program!!!")
```

```
else:
    print("No, the student has not attended the training program!!!")
elif(choice == 2):
  print("\n Enter the roll number to search if student has attended the training program or not? ")
  key = int(input())
  location = Sentsearch(array,key)
  if(location !=-1):
    print("Yes, the student attended the training program!!!")
  else:
    print("No, the student has not attended the training program!!!")
else:
  print("Exitting");
def Binsearch(arr,KEY):
  low = 0
  high = len(arr)-1
```

```
m = 0
  while(low<=high):
    m =(low+high)//2 #mid of the array is obtained
    if(KEY<arr[m]):</pre>
      high = m-1#search the left sub list
    elif(KEY>arr[m]):
      low = m+1#search the right sub list
    else:
       return m
  return -1#if element is not present in the list
def FibSearch(arr, key,n):
  # Initialize Fibonacci numbers
```





```
# after i+1
  elif (arr[i] > key):
    f = b
    a = a - b
    b = f - a
  # element found. return index
  else:
    return i
# comparing the last element with key
if(a and arr[offset+1] == key):
  return offset+1;
# element not found. return -1
```

return -1

```
#Driver Code
print("\nHow many Students are there?")
n = int(input())
array = []
i=0
for i in range(n):
  print("\n Enter roll number: ")
item = int(input())
array.append(item)
print("The Roll Numbers of Students are ...\n")
print(array)
while(True):
  print("Main Menu")
  print("\n 1. Binary Search")
  print("\n 2. Fibonacci Search")
  print("\n 3. Exit")
```

```
print("\n Enter your choice: ")
  choice = int(input())
  if(choice == 1):
    print("\n Enter the roll number to search if student has attended the training program or not?
")
    key = int(input())
    location = Binsearch(array,key)
    if(location !=-1):
      print("Yes, the student attended the training program!!!")
    else:
      print("No, the student has not attended the training program!!!")
  elif(choice == 2):
    print("\n Enter the roll number to search if student has attended the training program or not?
")
    key = int(input())
    location = FibSearch(array,key,n)
    if(location !=-1):
```

```
print("Yes, the student attended the training program!!!")
else:
    print("No, the student has not attended the training program!!!")
else:
    print("Exitting");
```