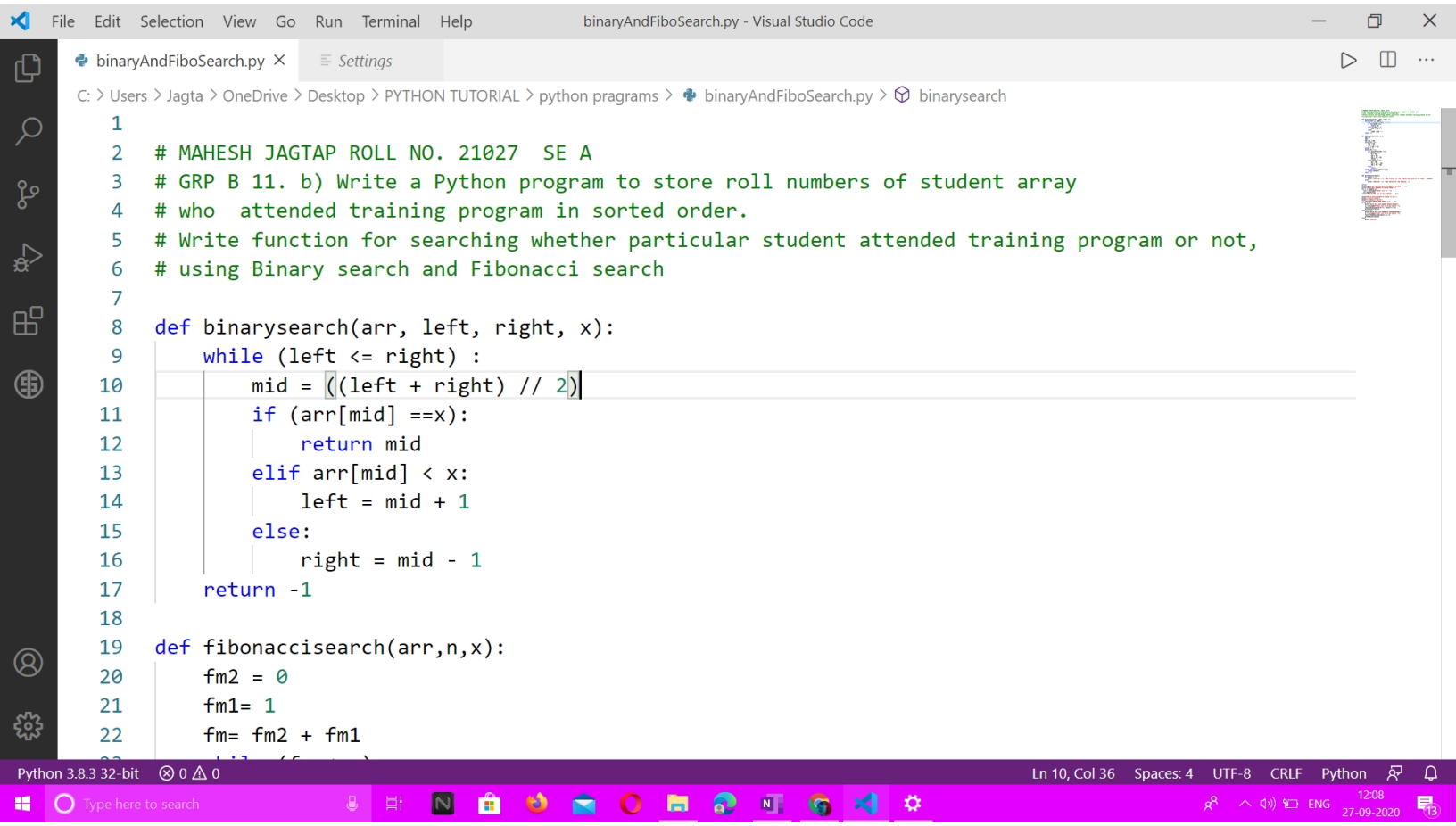
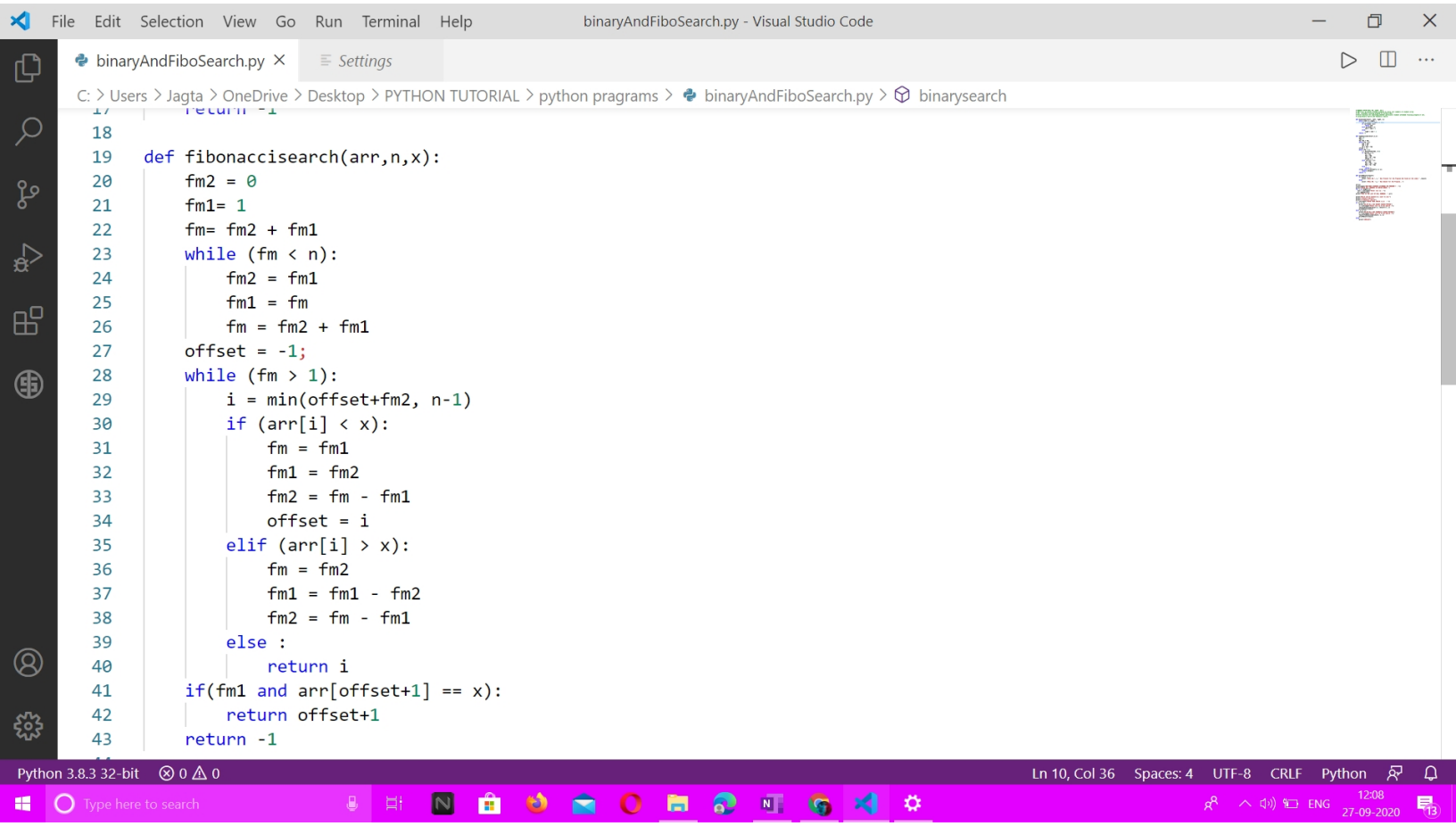

File Edit Selection View Go Run Terminal Help
binaryAndFiboSearch.py - Visual Studio Code
binaryAndFiboSearch.py
Settings
C: > Users > Jagta > OneDrive > Desktop > PYTHON TUTORIAL > python programs > binaryAndFiboSearch.py > binarysearch
# MAHESH JAGTAP ROLL NO. 21027 SE A
# GRP B 11. b) Write a Python program to store roll numbers of student array
# who attended training program in sorted order.
# Write function for searching whether particular student attended training program or not,
# using Binary search and Fibonacci search
def binarysearch(arr, left, right, x):
while (left <= right) :
mid = ((left + right) // 2)
if (arr[mid] ==x):
return mid
elif arr[mid] < x:
left = mid + 1
else:
right = mid - 1
return -1
def fibonaccisearch(arr,n,x):
fm2 = 0
fm1= 1
fm= fm2 + fm1
Python 3.8.3 32-bit
Ln 10, Col 36 Spaces: 4 UTF-8 CRLF Python
Type here to search
ENG
12:08
27-09-2020


File Edit Selection View Go Run Terminal Help
binaryAndFiboSearch.py - Visual Studio Code
binaryAndFiboSearch.py
Settings
C: > Users > Jagta > OneDrive > Desktop > PYTHON TUTORIAL > python programs > binaryAndFiboSearch.py > binarysearch
def fibonaccisearch(arr,n,x):
fm2 = 0
fm1= 1
fm= fm2 + fm1
while (fm < n):
fm2 = fm1
fm1 = fm
fm = fm2 + fm1
offset = -1;
while (fm > 1):
i = min(offset+fm2, n-1)
if (arr[i] < x):
fm = fm1
fm1 = fm2
fm2 = fm - fm1
offset = i
elif (arr[i] > x):
fm = fm2
fm1 = fm1 - fm2
fm2 = fm - fm1
else :
return i
if(fm1 and arr[offset+1] == x):
return offset+1
return -1
Python 3.8.3 32-bit
Ln 10, Col 36 Spaces: 4 UTF-8 CRLF Python
Type here to search
ENG
12:08
27-09-2020

File Edit Selection View Go Run Terminal Help binaryAndFiboSearch.py - Visual Studio Code

binaryAndFiboSearch.py × Settings

C: > Users > Jagta > OneDrive > Desktop > PYTHON TUTORIAL > python programs > binaryAndFiboSearch.py > binarysearch

```
45  def printResult(result):
46      if result != -1:
47          print ("ROLL NO.", x, " Was Present for the Program And found at the index " ,result)
48      else:
49          print ("ROLL NO. ",x, " Was Absent for the Program...")
50
51  arr=[]
52  n=int(input("HOW MANY STUDENTS ATTENDED THE PROGRAM ?  :"))
53  print("ENTER ROLL NUMBERS IN SORTED ORDER :")
54  for i in range(0,n):
55    roll = int(input("Enter roll no : "))
56    arr.append(roll)
57  print("THIS IS THE LIST OF ROLL NUMBERS : ",arr)
58
59  print("Which search method do u want to use:")
60  print("1.Binary search")
61  print("2.Fibonacci search")
62  c = int(input("ENTER YOUR CHOICE (1,2)  : "))
63  if (c == 1):
64      print("OK,WE WILL USE BINARY SEARCH METHOD")
65      x = int(input("Enter roll no to be search :"))
66      result=binarysearch(arr,0, len(arr)-1, x)
67      printResult(result)
68  elif (c == 2):
69      print("OK,WE WILL USE FIBONACCI SEARCH METHOD")
70      x = int(input("Enter roll no to be search :"))
71      result=fibonaccisearch(arr, n, x)
72      printResult(result)
73  else:
74      print("INVALID")
75
```

Python 3.8.3 32-bit ⊗ 0 ⚠ 0 Ln 10, Col 36 Spaces: 4 UTF-8 CRLF Python

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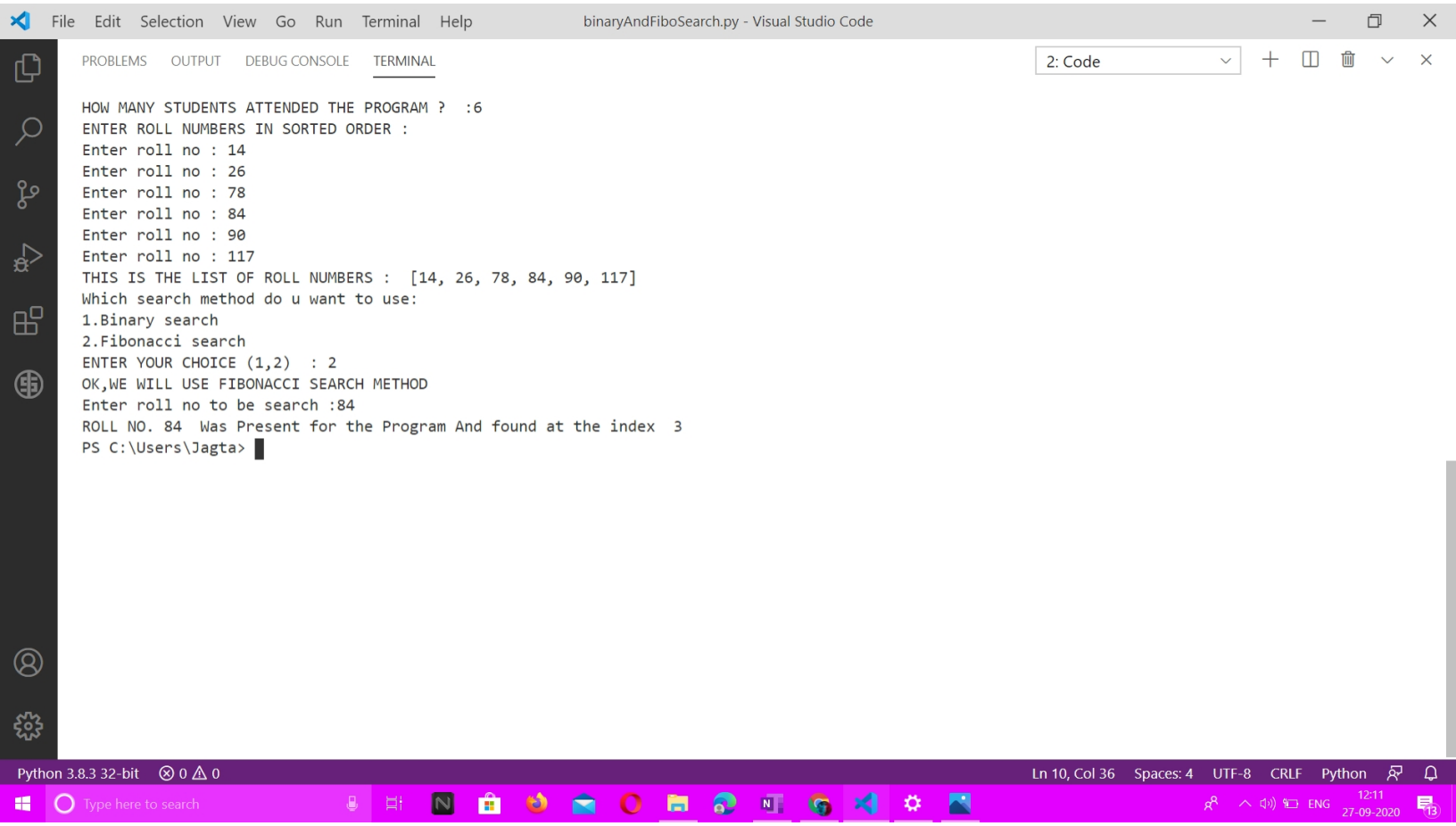
File Edit Selection View Go Run Terminal Help binaryAndFiboSearch.py - Visual Studio Code

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 2: Code

```
PS C:\Users\Jagta> python -u "c:\Users\Jagta\OneDrive\Desktop\PYTHON TUTORIAL\python programs\binaryAndFiboSearch.py"
HOW MANY STUDENTS ATTENDED THE PROGRAM ?  :5
ENTER ROLL NUMBERS IN SORTED ORDER :
Enter roll no : 9
Enter roll no : 24
Enter roll no : 37
Enter roll no : 52
Enter roll no : 69
THIS IS THE LIST OF ROLL NUMBERS :  [9, 24, 37, 52, 69]
Which search method do u want to use:
1.Binary search
2.Fibonacci search
ENTER YOUR CHOICE (1,2)  : 1
OK,WE WILL USE BINARY SEARCH METHOD
Enter roll no to be search :63
ROLL NO.  63  Was Absent for the Program...
PS C:\Users\Jagta>
```

Python 3.8.3 32-bit ⊗ 0 ⚠ 0 Ln 10, Col 36 Spaces: 4 UTF-8 CRLF Python

Type here to search ENG 12:10 27-09-2020


File Edit Selection View Go Run Terminal Help
binaryAndFiboSearch.py - Visual Studio Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
2: Code
HOW MANY STUDENTS ATTENDED THE PROGRAM ? :6
ENTER ROLL NUMBERS IN SORTED ORDER :
Enter roll no : 14
Enter roll no : 26
Enter roll no : 78
Enter roll no : 84
Enter roll no : 90
Enter roll no : 117
THIS IS THE LIST OF ROLL NUMBERS : [14, 26, 78, 84, 90, 117]
Which search method do u want to use:
1.Binary search
2.Fibonacci search
ENTER YOUR CHOICE (1,2) : 2
OK,WE WILL USE FIBONACCI SEARCH METHOD
Enter roll no to be search :84
ROLL NO. 84 Was Present for the Program And found at the index 3
PS C:\Users\Jagta>
Python 3.8.3 32-bit
Ln 10, Col 36 Spaces: 4 UTF-8 CRLF Python
Type here to search
ENG
12:11
27-09-2020