def binary\_search(arr, target):

left, right = 0, len(arr) - 1

while left <= right:

mid = left + (right - left) // 2

if arr[mid] == target:

return True

elif arr[mid] < target:

left = mid + 1

else:

right = mid - 1

return False

def fibonacci\_search(arr, target):

def fibonacci\_numbers(n):

fib = [0, 1]

while fib[-1] < n:

fib.append(fib[-1] + fib[-2])

return fib

fib = fibonacci\_numbers(len(arr))

offset = -1

while fib:

i = min(offset + fib.pop(), len(arr) - 1)

if arr[i] < target:

fib.pop()

offset = i

elif arr[i] > target:

continue

else:

return True

return False

student\_roll\_numbers = [10, 20, 30, 40, 50, 60, 70, 80, 90]

student\_to\_find = 40

found\_binary = binary\_search(student\_roll\_numbers, student\_to\_find)

found\_fibonacci = fibonacci\_search(student\_roll\_numbers, student\_to\_find)

if found\_binary:

print(f"Binary\_Search: Student with roll number {student\_to\_find} attended the training program ")

else:

print(f"Binary\_Search: Student with roll number {student\_to\_find} did not attend the training program")

if found\_fibonacci:

print(f"Fibonaaci\_Search: Student with roll number {student\_to\_find} attended the training program.")

else:

print(f"Fibonaaci\_Search: Student with roll number {student\_to\_find} did not attend the training program.")