Started on	Friday, 9 May 2025, 3:32 PM
State	Finished
Completed on	Friday, 9 May 2025, 4:10 PM
Time taken	37 mins 18 secs
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

Write a Python program for Bad Character Heuristic of Boyer Moore String Matching Algorithm

For example:

Input	Result
ABAAAABCD ABC	Pattern occur at shift = 5

Answer: (penalty regime: 0 %)

Reset answer

```

NO_OF_CHARS = 256
def badCharHeuristic(string, size):
    ########### Add your Code Here ###############
    badChar = [-1] * NO_OF_CHARS
    for i in range(size):
        badChar[ord(string[i])] = i
    return badChar
def search(txt, pat):
    m = len(pat)
    n = len(txt)
    badChar = badCharHeuristic(pat, m)
    s = 0
    while(s <= n-m):
        j = m-1
        while j>=0 and pat[j] == txt[s+j]:
            j -= 1
        if j<0:
            print("Pattern occur at shift = {}".format(s))
            s += (m-badChar[ord(txt[s+m])] if s+m<n else 1)
        else:
            s += max(1, j-badChar[ord(txt[s+j])])
```

	Input	Expected	Got	
✓	ABAAAABCD ABC	Pattern occur at shift = 5	Pattern occur at shift = 5	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question **2**

Correct

Mark 20.00 out of 20.00

Write a python program to find minimum steps to reach to specific cell in minimum moves by knight.

Answer: (penalty regime: 0 %)

Reset answer

```

class cell:

    def __init__(self, x = 0, y = 0, dist = 0):
        self.x = x
        self.y = y
        self.dist = dist

def isInside(x, y, N):
    if (x >= 1 and x <= N and
        y >= 1 and y <= N):
        return True
    return False
def minStepToReachTarget(knightpos,
                         targetpos, N):
    ######################### Add your code here ###########################3
    dx = [2, 2, -2, -2, 1, 1, -1, -1]
    dy = [1, -1, 1, -1, 2, -2, 2, -2]

    queue = []
    queue.append(cell(knightpos[0], knightpos[1], 0))
    visited = [[False for i in range(N + 1)]
```

	Input	Expected	Got	
✓	30	20	20	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question **3**

Correct

Mark 20.00 out of 20.00

Write a python program to check whether Hamiltonian path exits in the given graph.

For example:

Test	Result
`Hamiltonian_path(adj, N)`	YES

Answer: (penalty regime: 0 %)

Reset answer

```
def is_valid(v,pos,path,adj,N):
    if adj[path[pos-1]][v]==0:
        return False
    if v in path:
        return False
    return True
def hamUtil(adj,path,pos,N):
    if pos==N:
        return True
    for v in range(N):
        if is_valid(v,pos,path,adj,N):
            path[pos]=v
            if hamUtil(adj,path,pos+1,N):
                return True
            path[pos]=-1
    return True
def Hamiltonian_path(adj,N):
    path=[-1]*N
    path[0]=0

    if hamUtil(adj,path,1,N) == False:
        print ("Solution does not exist\n")
```

	Test	Expected	Got	
✓	`Hamiltonian_path(adj, N)`	YES	YES	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Correct

Mark 20.00 out of 20.00

Write a python program to implement pattern matching on the given string using Brute Force algorithm.

For example:

Test	Input	Result
BF(a1,a2)	abcaaaabbbbcccabcbabdbcsbbbbbnnn ccabcba	12

Answer: (penalty regime: 0 %)

Reset answer

```
def BF(s1,s2):
    ##############  Add your code here #############
    m=len(s1)
    n=len(s2)
    for i in range(m-n+1):
        j=0
        while j<n and s1[i+j]==s2[j]:
            j+=1
        if j==n:
            return i
    return -1
if __name__ == "__main__":
    a1=input()
    a2=input()
    b=BF(a1,a2)
    print(b)
```

	Test	Input	Expected	Got	
✓	BF(a1,a2)	abcaaaabbbbcccabcbabdbcsbbbbbnnn ccabcba	12	12	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Not answered

Mark 0.00 out of 20.00

Write a Python Program to print the fibonacci series upto n_terms using Recursion.

For example:

Input	Result
10	Fibonacci series: 0 1 1 2 3 5 8 13 21 34
5	Fibonacci series: 0 1 1 2 3
7	Fibonacci series: 0 1 1 2 3 5 8

Answer: (penalty regime: 0 %)