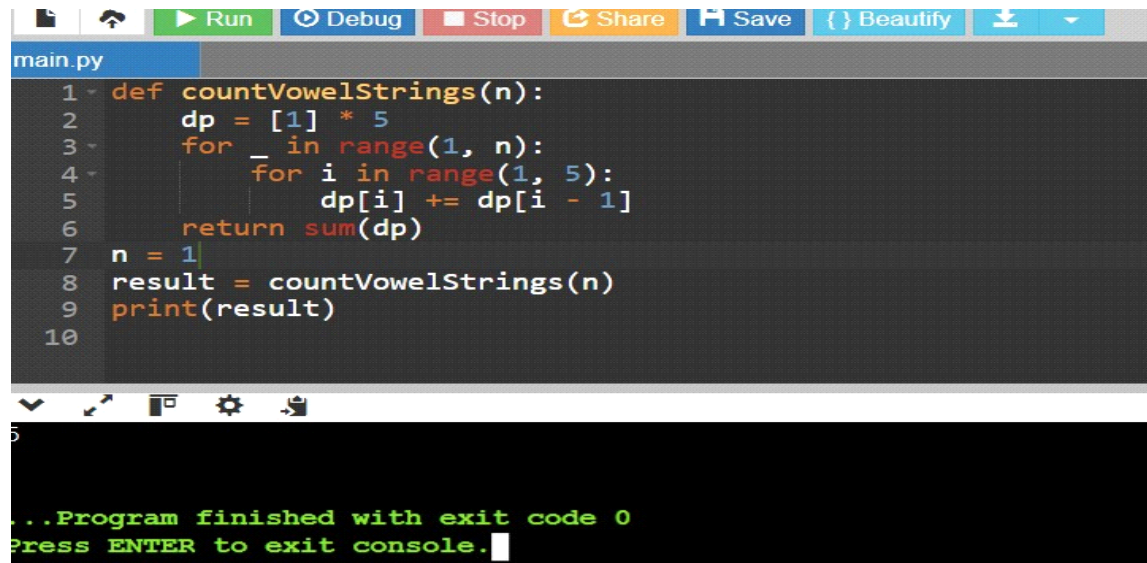


ASSISSMENT:4

MALREDDY(192372015)

1.



The screenshot shows a code editor with a toolbar at the top containing icons for Run, Debug, Stop, Share, Save, Beautify, and a download icon. The file name 'main.py' is visible. The code defines a function 'countVowelStrings(n)' that uses a dynamic programming array 'dp' of size 5. It iterates from 1 to n, and for each iteration, it iterates from 1 to 5, updating 'dp[i]' as the sum of 'dp[i-1]' and 'dp[i]'. The function returns the sum of the 'dp' array. The main part of the program sets 'n = 1', calls 'countVowelStrings(n)', and prints the result. The console output shows '...Program finished with exit code 0' and 'Press ENTER to exit console.'

```
1 def countVowelStrings(n):
2     dp = [1] * 5
3     for _ in range(1, n):
4         for i in range(1, 5):
5             dp[i] += dp[i - 1]
6     return sum(dp)
7 n = 1
8 result = countVowelStrings(n)
9 print(result)
10
```

...Program finished with exit code 0  
Press ENTER to exit console.

2.



The screenshot shows a code editor with a toolbar at the top containing icons for Run, Debug, Stop, Share, Save, Beautify, and a download icon. The file name 'main.py' is visible. The code defines a function 'add\_binary(a, b)' that converts the binary strings 'a' and 'b' to integers, adds them, and converts the result back to a binary string. The main part of the program sets 'a = "101"', 'b = "111"', calls 'add\_binary(a, b)', and prints the result. The console output shows '1100' and '...Program finished with exit code 0'.

```
1 def add_binary(a, b):
2     return bin(int(a, 2) + int(b, 2))[2:]
3
4 # Example usage
5 a = "101"
6 b = "111"
7 result = add_binary(a, b)
8 print(result) # Output: "1100"
9
```

1100

...Program finished with exit code 0  
Press ENTER to exit console.

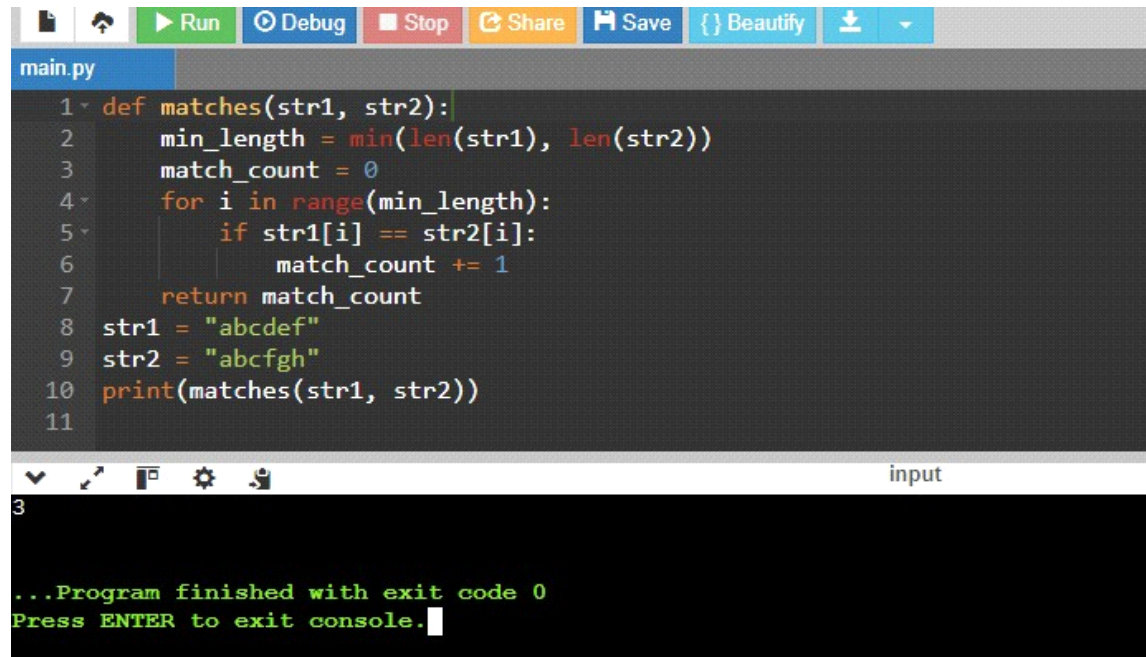
3.

main.py	Output
<pre>1 def calculate(s): 2     s = s.replace(' ', '') 3     stack = [] 4     current_num = 0 5     operation = '+' 6     for i, char in enumerate(s): 7         if char.isdigit(): 8             current_num = current_num * 10 + int(char) 9 10        if char in '+-*/' or i == len(s) - 1: 11            if operation == '+': 12                stack.append(current_num) 13            elif operation == '-': 14                stack.append(-current_num) 15            elif operation == '*': 16                stack[-1] = stack[-1] * current_num 17            elif operation == '/': 18                stack[-1] = int(stack[-1] / current_num) 19            operation = char 20            current_num = 0 21    return sum(stack) 22 23 test_cases = [ 24     "3+2*2", 25     " 3/2 ", 26     " 3+5 / 2 ", 27     "10 + 2 * 6", 28     "100 * 2 + 12", 29     "100 * ( 2 + 12 )", 30     "100 * ( 2 + 12 ) / 14" 31 ] 32 for expression in test_cases: 33     print(f'Expression: "{expression}"\nResult: {calculate(expression)}\n')</pre>	<p>Expression: "3+2*2" Result: 7</p> <p>Expression: " 3/2 " Result: 1</p> <p>Expression: " 3+5 / 2 " Result: 5</p> <p>Expression: "10 + 2 * 6" Result: 22</p> <p>Expression: "100 * 2 + 12" Result: 212</p> <p>Expression: "100 * ( 2 + 12 )" Result: 212</p> <p>Expression: "100 * ( 2 + 12 ) / 14" Result: 200</p> <p>=== Code Execution Successful ===</p>

4.

main.py	input
<pre>1 number = 123 2 print("mirror numbe is:", str(number)[::-1]) 3</pre>	<p>mirror numbe is: 321</p> <p>...Program finished with exit code 0 Press ENTER to exit console.</p>

5.



The image shows a code editor window with a toolbar at the top containing buttons for Run, Debug, Stop, Share, Save, Beautify, and a download icon. The editor displays a Python file named 'main.py' with the following code:

```
1 def matches(str1, str2):
2     min_length = min(len(str1), len(str2))
3     match_count = 0
4     for i in range(min_length):
5         if str1[i] == str2[i]:
6             match_count += 1
7     return match_count
8 str1 = "abcdef"
9 str2 = "abcdfgh"
10 print(matches(str1, str2))
11
```

Below the editor is a console window. It shows the number '3' on the first line, followed by the message '...Program finished with exit code 0' and 'Press ENTER to exit console.' with a cursor.