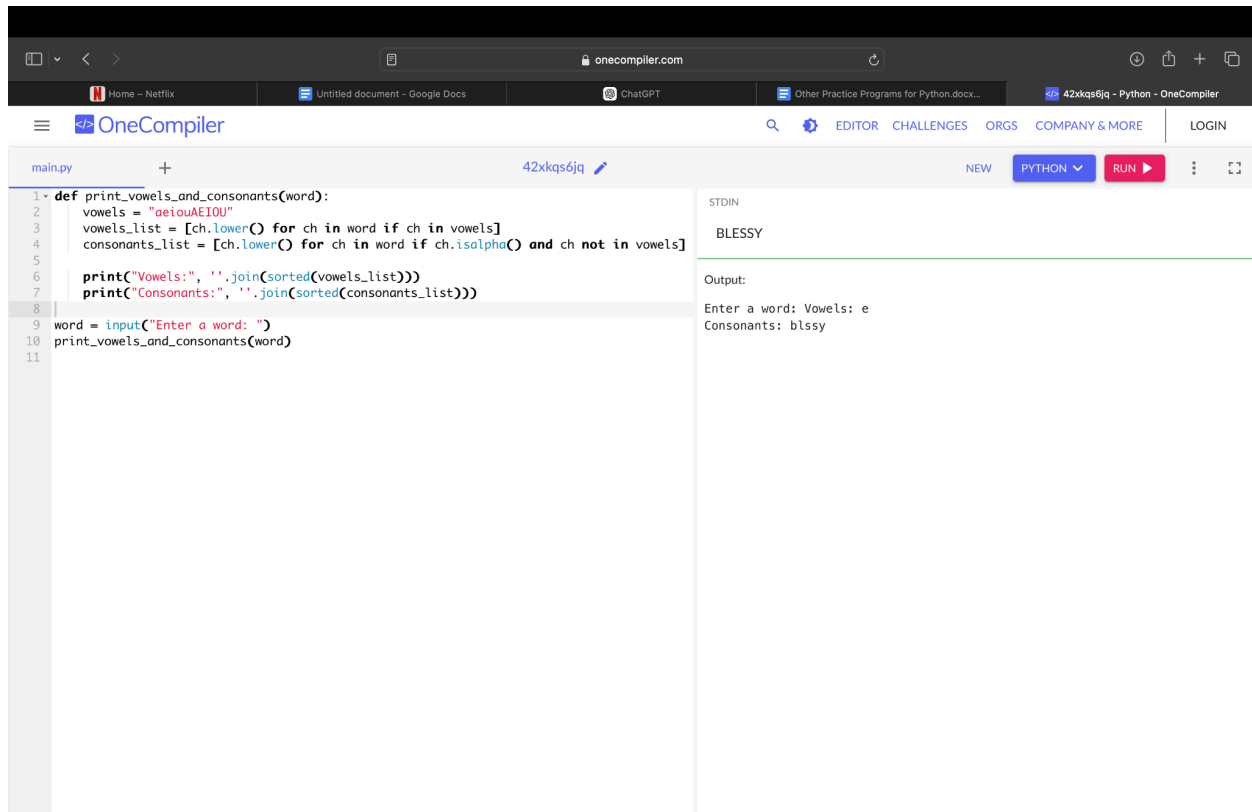


31. Write a program to print vowels and consonants from the given word in alphabetical order?



The screenshot shows the OneCompiler web interface. The editor contains a Python script named `main.py` with the following code:

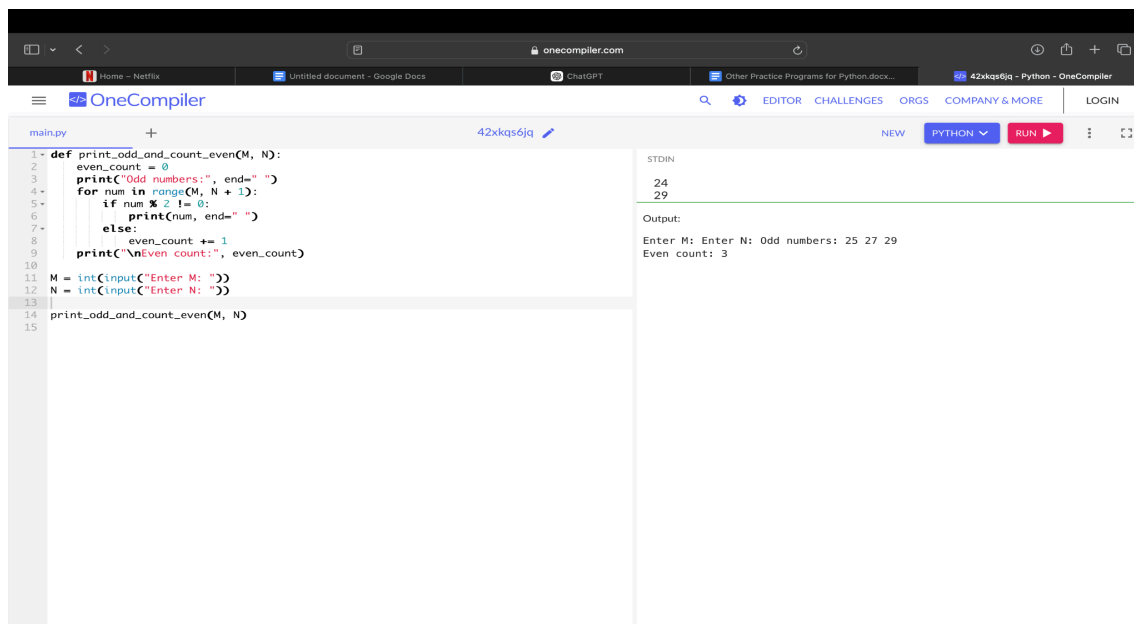
```
1 def print_vowels_and_consonants(word):
2     vowels = "aeiouAEIOU"
3     vowels_list = [ch.lower() for ch in word if ch in vowels]
4     consonants_list = [ch.lower() for ch in word if ch.isalpha() and ch not in vowels]
5
6     print("Vowels:", ''.join(sorted(vowels_list)))
7     print("Consonants:", ''.join(sorted(consonants_list)))
8
9 word = input("Enter a word: ")
10 print_vowels_and_consonants(word)
11
```

The output panel on the right shows the execution results:

STDIN
BLESSY

Output:
Enter a word: e
Consonants: blssy

32. Write a program to print the all Odd numbers and number of even numbers in between M and N?



The screenshot shows the OneCompiler web interface. The editor contains a Python script named `main.py` with the following code:

```
1 def print_odd_and_count_even(M, N):
2     even_count = 0
3     print("Odd numbers:", end=" ")
4     for num in range(M, N + 1):
5         if num % 2 != 0:
6             print(num, end=" ")
7         else:
8             even_count += 1
9     print("\nEven count:", even_count)
10
11 M = int(input("Enter M: "))
12 N = int(input("Enter N: "))
13
14 print_odd_and_count_even(M, N)
15
```

The output panel on the right shows the execution results:

STDIN
24
29

Output:
Enter M: Enter N: Odd numbers: 25 27 29
Even count: 3

33. Write a program to print numbers from P to Q but except the digit R?

The screenshot shows the OneCompiler Python IDE interface. The editor on the left contains the following Python code:

```
1 def print_numbers_excluding_digit(P, Q, R):
2     R_str = str(R)
3
4     for num in range(P, Q + 1):
5         if R_str not in str(num):
6             print(num)
7
8 P = 10
9 Q = 50
10 R = 3
11
12 print_numbers_excluding_digit(P, Q, R)
13
```

The right-hand side of the IDE shows the execution results. The 'STDIN' section is empty. The 'Output' section displays the numbers from 10 to 50, with the digit 3 excluded from the sequence.

```
Output:
10
11
12
13
14
15
16
17
18
19
20
21
22
23
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25
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27
28
29
30
31
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33
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35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
```

34. Write a program to print the number of Odd numbers and number of even numbers in between M and N?

The screenshot shows the OneCompiler Python IDE interface. The editor on the left contains the following Python code:

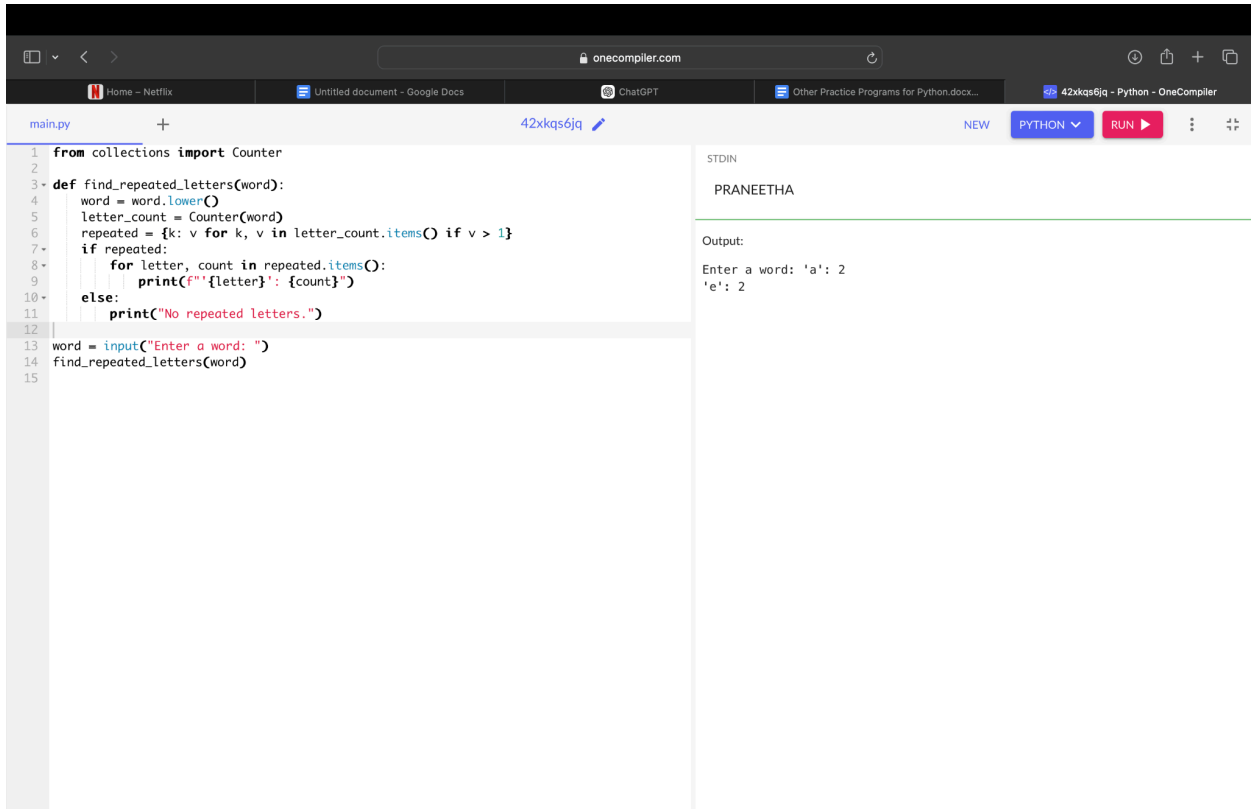
```
1 def count_even_odd(M, N):
2     even_count = sum(1 for num in range(M, N+1) if num % 2 == 0)
3     odd_count = (N - M + 1) - even_count
4     print(f"Even numbers: {even_count}, Odd numbers: {odd_count}")
5
6 M = int(input("Enter M: "))
7 N = int(input("Enter N: "))
8 count_even_odd(M, N)
9
```

The right-hand side of the IDE shows the execution results. The 'STDIN' section contains the input values 1 and 16. The 'Output' section displays the result of the program execution.

```
STDIN
1
16

Output:
Enter M: Enter N: Even numbers: 8, Odd numbers: 8
```

35. Write a program to find the number of letters repeatedly present in the given word



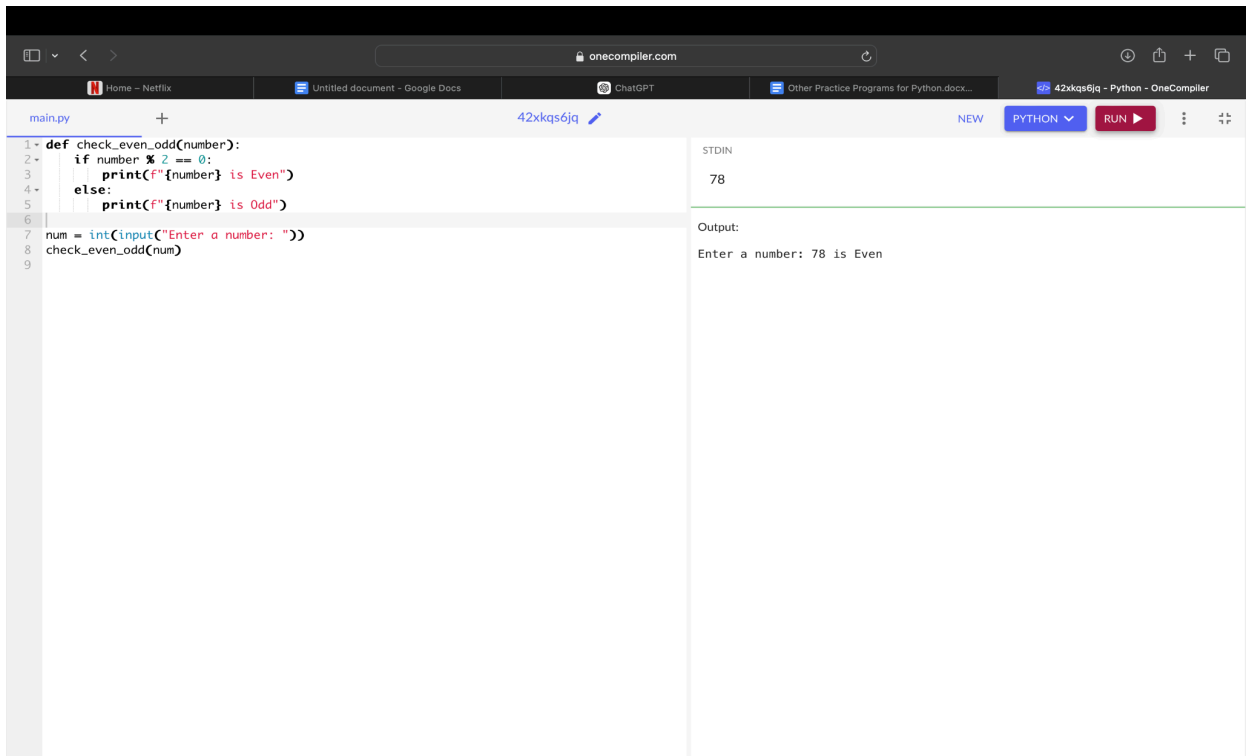
The screenshot shows the OneCompiler Python IDE interface. The left pane contains a Python script named `main.py` with the following code:

```
1 from collections import Counter
2
3 def find_repeated_letters(word):
4     word = word.lower()
5     letter_count = Counter(word)
6     repeated = {k: v for k, v in letter_count.items() if v > 1}
7     if repeated:
8         for letter, count in repeated.items():
9             print(f'{letter}: {count}')
10    else:
11        print("No repeated letters.")
12
13 word = input("Enter a word: ")
14 find_repeated_letters(word)
15
```

The right pane shows the execution results. The `STDIN` input is `PRANEETHA`. The `Output` section shows the program's output:

```
Enter a word: 'a': 2
'e': 2
```

36. Write a program to print the given number even or odd



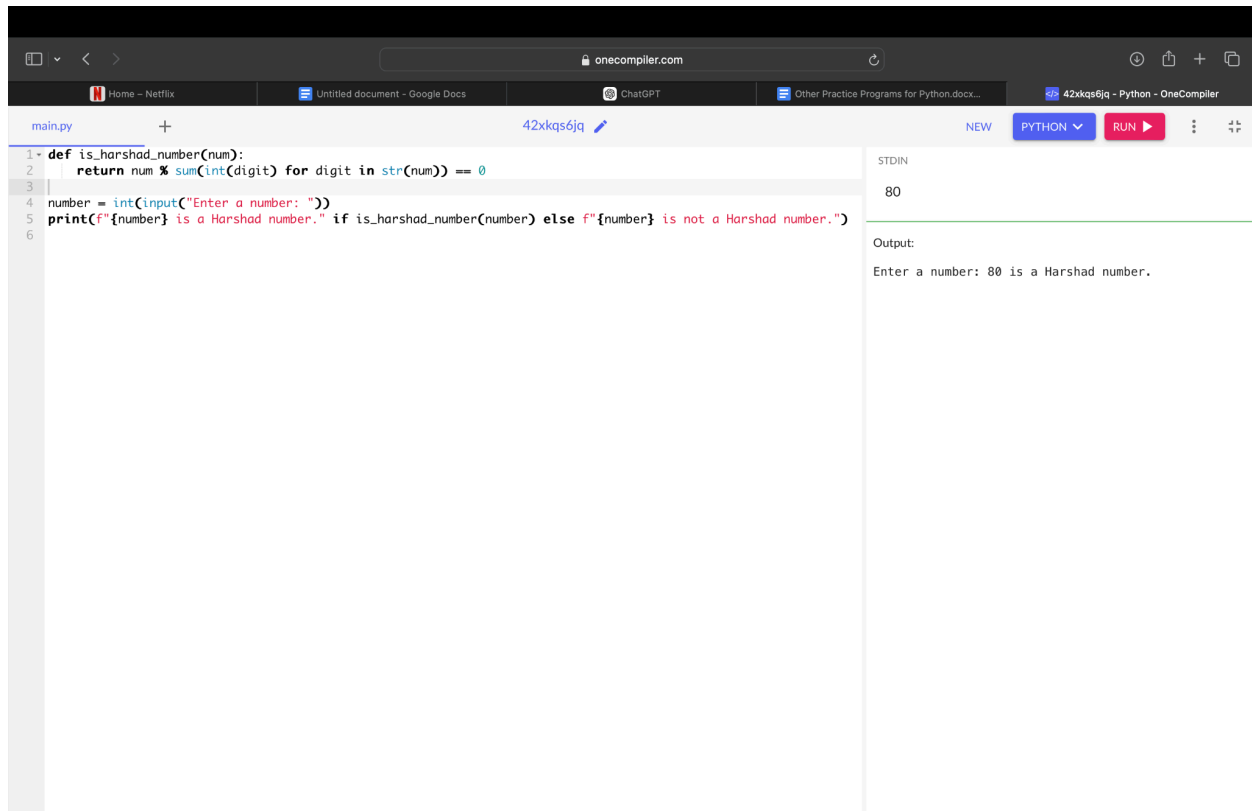
The screenshot shows the OneCompiler Python IDE interface. The left pane contains a Python script named `main.py` with the following code:

```
1 def check_even_odd(number):
2     if number % 2 == 0:
3         print(f'{number} is Even')
4     else:
5         print(f'{number} is Odd')
6
7 num = int(input("Enter a number: "))
8 check_even_odd(num)
9
```

The right pane shows the execution results. The `STDIN` input is `78`. The `Output` section shows the program's output:

```
Enter a number: 78 is Even
```

37. Write a program to find if the given number is Harshad number or not .



```
main.py + 42xkqs6jq
1 def is_harshad_number(num):
2     return num % sum(int(digit) for digit in str(num)) == 0
3
4 number = int(input("Enter a number: "))
5 print(f"{number} is a Harshad number." if is_harshad_number(number) else f"{number} is not a Harshad number.")
6
```

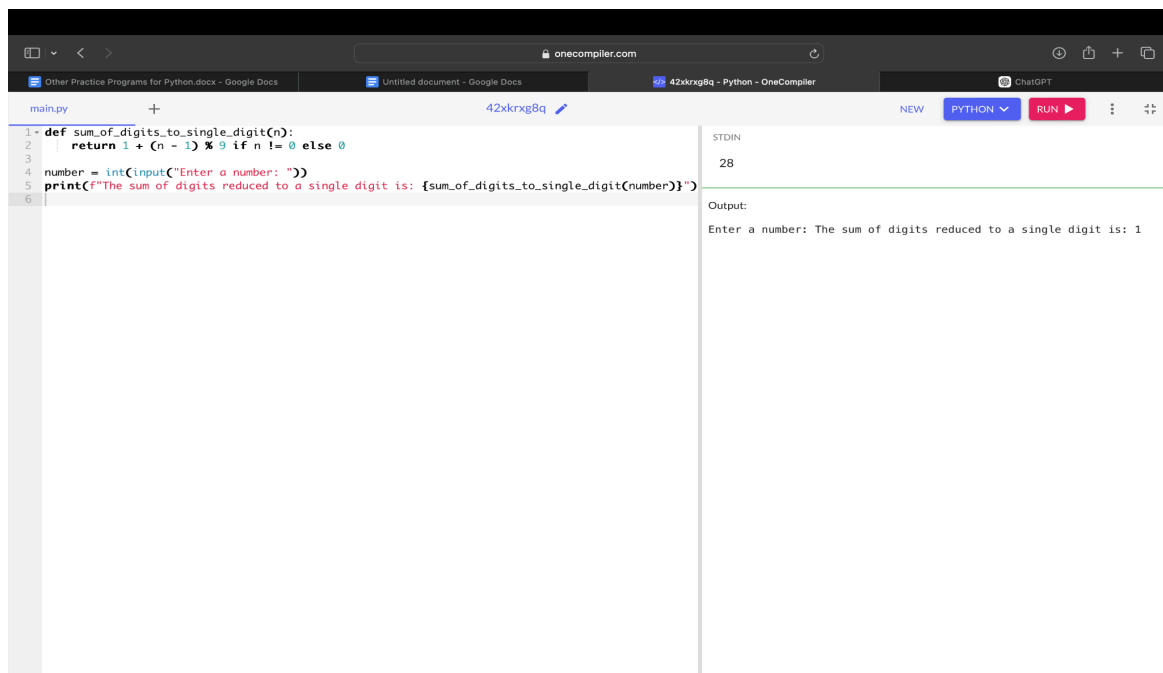
STDIN

80

Output:

Enter a number: 80 is a Harshad number.

38. Write a program to find the sum of digits of N digit number (sum should be single digit)



```
main.py + 42xkxg8q
1 def sum_of_digits_to_single_digit(n):
2     return 1 + (n - 1) % 9 if n != 0 else 0
3
4 number = int(input("Enter a number: "))
5 print(f"The sum of digits reduced to a single digit is: {sum_of_digits_to_single_digit(number)}")
6
```

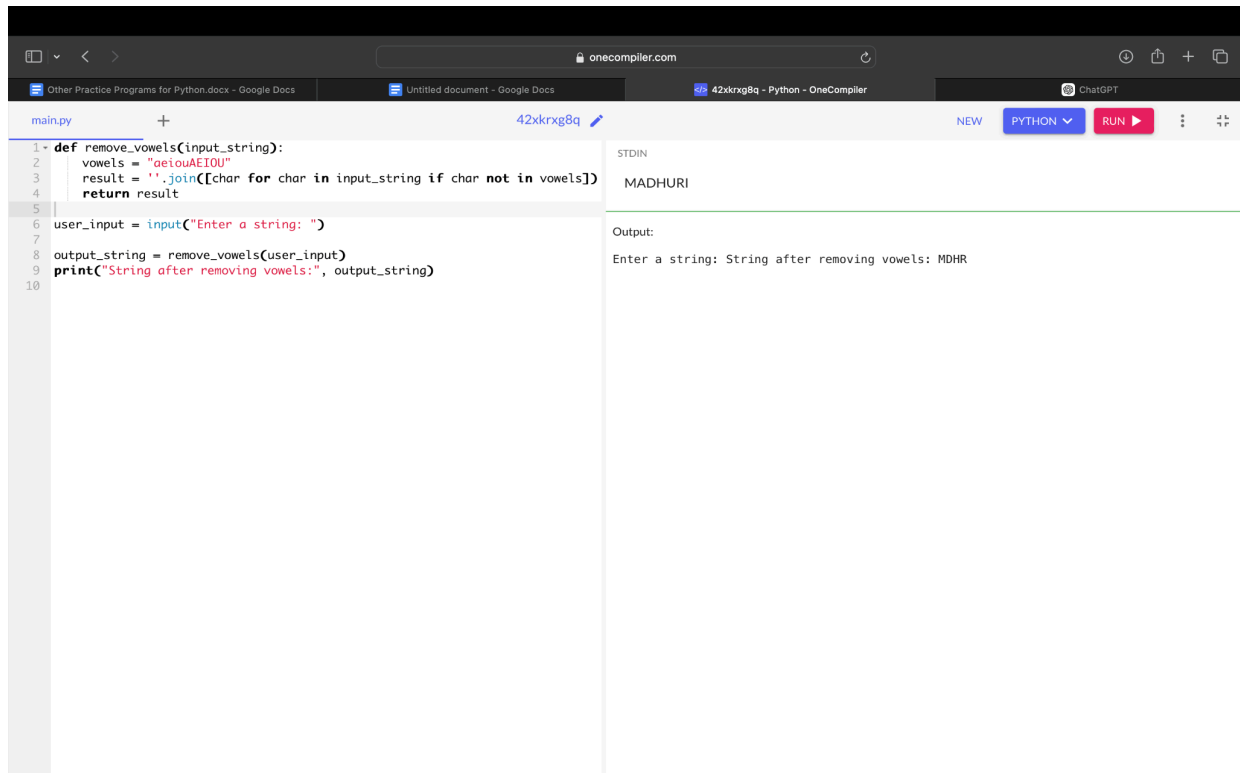
STDIN

28

Output:

Enter a number: The sum of digits reduced to a single digit is: 1

39. Write a program that accepts a string from user and re displays the same string after removing vowels from it.



The screenshot shows the OneCompiler interface. The code editor on the left contains a Python script named `main.py`. The script defines a function `remove_vowels` that takes an input string and returns a new string with all vowels removed. The main part of the program prompts the user to enter a string, calls the function, and prints the result. The output pane on the right shows the input string "MADHURI" and the output string "MDHR".

```
1 def remove_vowels(input_string):
2     vowels = "aeiouAEIOU"
3     result = ''.join([char for char in input_string if char not in vowels])
4     return result
5
6 user_input = input("Enter a string: ")
7
8 output_string = remove_vowels(user_input)
9 print("String after removing vowels:", output_string)
10
```

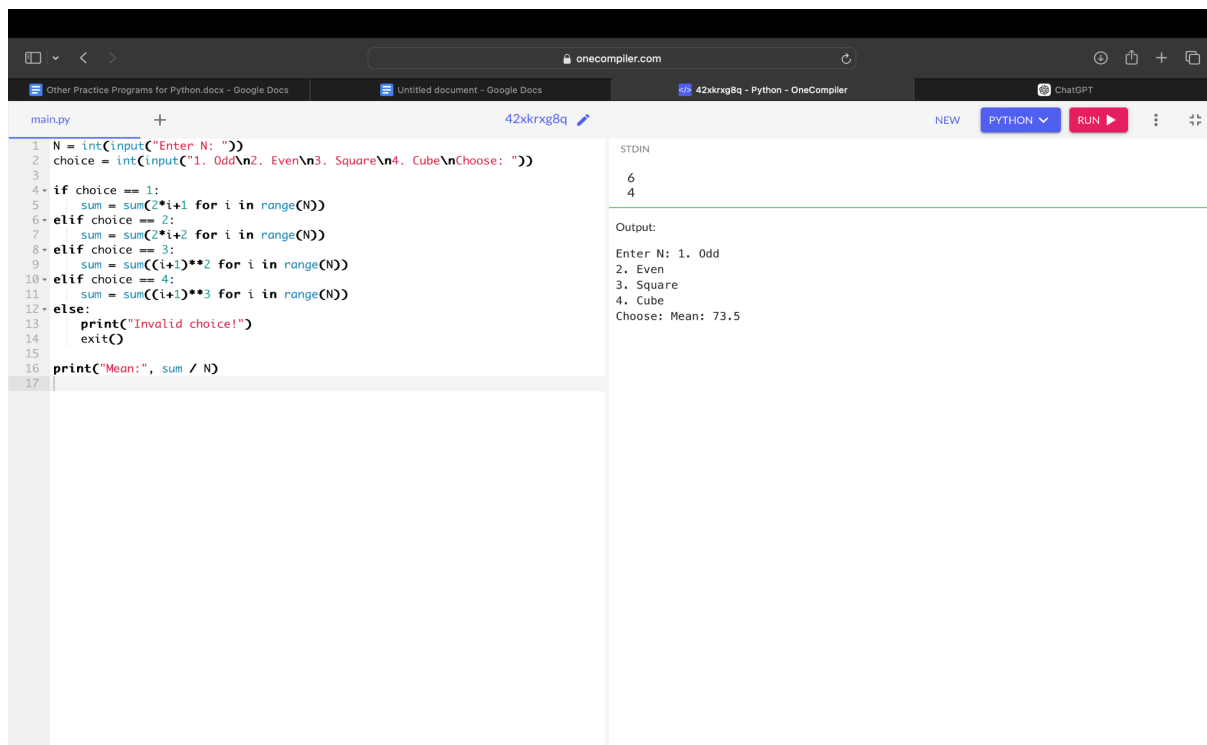
STDIN

MADHURI

Output:

Enter a string: String after removing vowels: MDHR

40. Write a program to find the Mean of first 'N' odd numbers, even numbers, square numbers and cube numbers (using switch case)



The screenshot shows the OneCompiler interface. The code editor on the left contains a Python script named `main.py`. The script prompts the user to enter a value for N and a choice (1 for odd, 2 for even, 3 for square, 4 for cube). It then calculates the sum of the first N numbers of the chosen type and prints the mean. The output pane on the right shows the input N=6 and choice=4, and the output mean of 73.5.

```
1 N = int(input("Enter N: "))
2 choice = int(input("1. Odd\n2. Even\n3. Square\n4. Cube\nChoose: "))
3
4 if choice == 1:
5     sum = sum(2*i+1 for i in range(N))
6 elif choice == 2:
7     sum = sum(2*i+2 for i in range(N))
8 elif choice == 3:
9     sum = sum((i+1)**2 for i in range(N))
10 elif choice == 4:
11     sum = sum((i+1)**3 for i in range(N))
12 else:
13     print("Invalid choice!")
14     exit()
15
16 print("Mean:", sum / N)
17
```

STDIN

6
4

Output:

Enter N: 1. Odd
2. Even
3. Square
4. Cube
Choose: Mean: 73.5