011-Hrushikesh

Q.1) Write a code to Read a file and append lines to a list.

```python
lines_list = []

with open("/content/Data Cleaning.txt", "r") as file:
    for line in file:
        lines_list.append(line.strip())

print(lines_list)
```

```
···  ['Data Cleaning', '', 'Host Name']
```

Q.2) Write a code to catch an Exception in python?

```python
try:
    a = int(input("Enter first number: "))
    b = int(input("Enter second number: "))
    result = a / b
    print("Result:", result)

except ZeroDivisionError:
    print("Error: Division by zero is not allowed")

except ValueError:
    print("Error: Please enter valid integers")

else:
    print("Execution successful")

finally:
    print("Program finished")
```

```
···   Enter first number: 2
      Enter second number: 0
      Error: Division by zero is not allowed
      Program finished
```

Q.3) Write a Python function that accepts a list containing strings and integers. Merge all string elements using # and add all integer elements.

e.g.

input list is

['100', 'welcome', 'hi', '200', '300', 'bye', 'welldone', '500']

Output should be:

welcome#hi#bye#welldone#

1100

```python
input_list = ['100', 'welcome', 'hi', '200', '300', 'bye', 'welldone', '500']


def process_list(input_list):
    string_result = ""
    int_sum = 0

    for item in input_list:
        if isinstance(item, str) and item.isdigit():
            int_sum += int(item)
        elif isinstance(item, str):
            string_result += item + "#"

    print(string_result)
    print(int_sum)


process_list(input_list)
```

```
••• welcome#hi#bye#welldone#
    1100
```

Q.4) Write a script to sort a dictionary based on its values and find the sum of middle two values

input_dict = {"x": 5, "y": 15, "z": 25}

Output:

Sorted Dictionary: {'x': 5, 'y': 15, 'z': 25}

Sum of middle two values: 15 + 5 = 20

def sort_and_sum_middle(input_dict):

   sorted_items = dict(sorted(input_dict.items(), key=lambda x: x[1]))

   print("Sorted Dictionary:", sorted_items)

   values = list(sorted_items.values())

   n = len(values)

   if n % 2 == 0:

     mid_sum = values[n//2 - 1] + values[n//2]

     print(f"Sum of middle two values: {values[n//2 - 1]} + {values[n//2]} = {mid_sum}")

   else:

     mid_sum = values[n//2] + values[n//2 - 1]

     print(f"Sum of middle two values: {values[n//2]} + {values[n//2 - 1]} = {mid_sum}")

input_dict1 = {"x": 5, "y": 15, "z": 25}

sort_and_sum_middle(input_dict1)


```
••• Sorted Dictionary: {'x': 5, 'y': 15, 'z': 25}
    Sum of middle two values: 15 + 5 = 20
```