

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

```
lines_list = []

with open("Test 2.py", "r") as file:
    for line in file:
        lines_list.append(line.strip())

print(lines_list)
```

```
C:\msys64\ucrt64\bin\python.exe "D:\DBDA CAD\Python\test\Day 3.py"
['# Q.1) Write a Python program to print all even numbers from a given list of numbers in the', '# same order. Stop printing if any number that comes after 237 in the sequence']
Process finished with exit code 0
```

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

```
try:
    a = int(input("Enter a number: "))
    b = int(input("Enter another number: "))
    print(a / b)
except ZeroDivisionError:
    print("Cannot divide by zero")
except ValueError:
    print("Invalid input")
```

```
C:\msys64\ucrt64\bin\python.exe "D:\DBDA CAD\Python\test\Day 3.py"
Enter a number: 10
Enter another number: 0
Cannot divide by zero

Process finished with exit code 0
```

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

```
def process_list(lst):
    part = ""
    int_sum = 0

    for item in lst:
        if item.isdigit():
            int_sum += int(item)
        else:
            part += item + "#"

    print(part)
    print(int_sum)
```

```
data = ['100', 'welcome', 'hi', '200', '300', 'bye', 'welldone', '500']
process_list(data)
```

```
C:\msys64\ucrt64\bin\python.exe "D:\DBDA CAD\Python\test\Day 3.py"
welcome#hi#bye#welldone#
1100

Process finished with exit code 0
|
```

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 or input_dict = {'x': 5, 'y': 15, 'z': 25, 'p': 12} Output: Sorted Dictionary: {'x': 5, 'p': 12, 'y': 15, 'z': 25} Sum of middle two values: 12 + 15 = 27

```
input_dict = {"x": 5, "y": 15, "z": 25, "p": 12}

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

mid = len(values) // 2

if len(values) % 2 == 0:
    mid_sum = values[mid - 1] + values[mid]
else:
    mid_sum = values[mid]

print("Sorted Dictionary:", sorted_dict)
print("Sum of middle two values:", mid_sum)
```

```
C:\msys64\ucrt64\bin\python.exe "D:\DBDA CAD\Python\test\Day 3.py"
Sorted Dictionary: {'x': 5, 'p': 12, 'y': 15, 'z': 25}
Sum of middle two values: 27

Process finished with exit code 0
```