

Assignment 5

1. Write a Python program to read a file and display its contents

```
file1=open("C:\\Users\\jayak\\Desktop\\filehand.txt",'r')
print(file1.read())
```

Output:

```
New content

Process finished with exit code 0
```

2. Write a Python program to copy the contents of one file to another file:

```
file4 = open("sample.txt",'r')
print(file4.read())
```

```
file3 = open("sample2.txt",'r')
print(file3.read())
```

Output:

```
sample1
sample2

Process finished with exit code 0
```

text in the sample1 and sample 2 is printed before copying.

```
with open("sample.txt", 'r') as src:
    with open("sample2.txt", 'a') as dest:
        contents = src.read()
        dest.write(contents)
file5 = open("sample2.txt",'r')
print(file5.read())
```

Output:

```
sample1
sample2
sample2sample1

Process finished with exit code 0
```

3. Write a Python program to read the content of a file and count the total number of words in that file.

```
file2 = open("sample.txt",'r')
print(len(file2.read()))
```

Output:

```
7

Process finished with exit code 0
```

4. Write a Python program that prompts the user to input a string and converts it to an integer. Use try-except blocks to handle any exceptions that might occur.:

```
a=input("Enter the string which is to be converted to int:")
try:
    b=int(a)
    print(b,"the string converted to integer")
except ValueError:
    print("This string cannot be converted to integer")
```

Output:

```
Enter the string which is to be converted to int:a
This string cannot be converted to integer

Process finished with exit code 0
```

5. Write a Python program that prompts the user to input a list of integers and raises an exception if any of the integers in the list are negative.

```
a=input("Enter a list of numbers with space:")
try:
    b=list(map(int,a.split()))
    for i in b:
        if i < 0:
            raise ValueError("Negative integer found")
    print("the list of integers:",b)
except Exception as e:
    print("Error:",e)
```

Output:

```
Enter a list of numbers with space:1 2 3 -1
Error: Negative integer found

Process finished with exit code 0
```

6. Write a Python program that prompts the user to input a list of integers and computes the average of those integers. Use try-except blocks to handle any exceptions that might occur. Use the finally clause to print a message indicating that the program has finished running.

```
a= input("Enter a list of numbers:")
try:
    b=list(map(int, a.split(',')))
    Avg=sum(b) / len(b)
    print(f"The average of the list of number is:{Avg}")
except ValueError as e:
    print("Error:", e)
except Exception as e:
    print("Error:",e)
finally:
    print("the program has finished running")
```

Output:

```
Enter a list of numbers:1,2,3,4,5
The average of the list of number is:3.0
the program has finished running
```

7. Write a Python program that prompts the user to input a filename and writes a string to that file. Use try-except blocks to handle any exceptions that might occur and print a welcome message if there is no exception occurred.

```
a = input("Enter the filename to write:")
b = input("Enter the sentence to write in the file:")
try:
    with open(a,'w') as file:
        file.write(b)
    print("The file written successfully.")
except FileNotFoundError:
    print("Error: The file could not be found.")
except IOError:
    print("Error: An input/output error occurred while writing to the file.")
except Exception as e:
    print(f"An unexpected error occurred: {e}")
finally:
    print("The program has finished running.")
```

Output:

```
Enter the filename to write:test1
Enter the sentence to write in the file:1,2,3,4
The file written successfully.
The program has finished running.
```