LAB CYCLE 7

Experiment No:1

Aim: Write a python program to read a file line by line and store it into the list.

Source code:

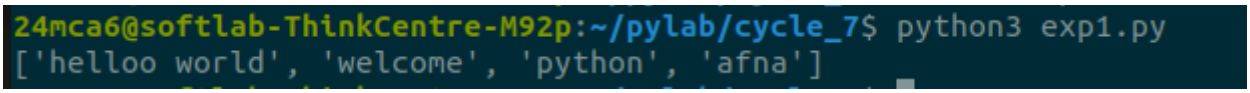
```
filename = 'example.txt'
lines = []
try:
    with open(filename, 'r') as file:
        for line in file:
            lines.append(line.strip())
except FileNotFoundError:
    print(f"The file {filename} was not found.")
except Exception as e:
    print(f"An error occurred: {e}")

print(lines)
```

//example.txt

```
helloo world
welcome
python
afna
```

Output:



Experiment No:2

Aim: python program to copy odd lines of one file to other.

Source code:

```
input_filename = 'example2.1.txt'
output_filename = 'example2.2.txt'

try:
    with open(input_filename, 'r') as infile:
        with open(output_filename, 'w') as outfile:
            for index, line in enumerate(infile, start=1):
                if index % 2 != 0:
                    outfile.write(line)
except FileNotFoundError:
    print(f"The file {input_filename} was not found.")
except Exception as e:
```

```
    print(f"An error occurred: {e}")

print(f"Odd lines from {input_filename} have been copied to {output_filename}.")
```

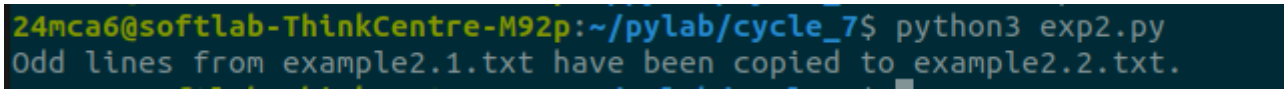
//example2.1.txt

Line 1: This is the first line.
Line 2: This is the second line.
Line 3: This is the third line.
Line 4: This is the fourth line.
Line 5: This is the fifth line.
Line 6: This is the sixth line.
Line 7: This is the seventh line.

//example2.2.txt

Line 1: This is the first line.
Line 3: This is the third line.
Line 5: This is the fifth line.
Line 7: This is the seventh line.

Output:



Experiment No: 3

Aim: python program to read each row from a given csv file and print a list of strings.

Source code:

```
import csv
filename = 'example3.csv'

try:
    with open(filename, mode='r', newline='') as csvfile:
        csv_reader = csv.reader(csvfile)
        for row in csv_reader:
            print(row)
except FileNotFoundError:
    print(f"The file {filename} was not found.")
except Exception as e:
    print(f"An error occurred: {e}")
```

//example3.csv

Name,Age,City
Afna,21,Ernakulam
Ashik,22,Ernakulam

aliya,19,malapuram

Output:

```
24mca6@softlab-ThinkCentre-M92p:~/pylab/cycle_7$ python3 exp3.py
['Name', 'Age', 'City']
['Afna', '21', 'Ernakulam']
['Ashik', '22', 'Ernakulam']
['aliya', '19', 'malapuram']
```

Experiment no: 4

Aim: write a pyton program to read specific column of a given csv file and print the concept of the colums

Source code:

```
import csv

filename = 'example4.1.csv'
colnum=int(input("Enter columns "))
columns_to_read = [colnum]

try:
    with open(filename, mode='r', newline='') as csvfile:
        csv_reader = csv.reader(csvfile)
        header = next(csv_reader)
        print("Header:", [header[i] for i in columns_to_read])
        for row in csv_reader:
            selected_columns = [row[i] for i in columns_to_read]
            print(selected_columns)
except FileNotFoundError:
    print(f"The file {filename} was not found.")
except Exception as e:
    print(f"An error occurred: {e}")
```

//example4.1.csv

Name,Age,City
john,30,New York
philip,29,uk
zara,35,Chicago

Output:

```
24mca6@softlab-ThinkCentre-M92p:~/pylab/cycle_7$ python3 exp4.py
Enter columns 2
Header: ['City']
['New York']
['uk']
['Chicago']
```

Experiment No:5

Aim: Write a python program to write a pytgon dictionary to a csv file.after writing csv file,read the csv file and display the content.

Source code:

```
import csv

def read_dictionary_from_user():
    data_dict = []
    while True:

        name = input("Enter name (or type 'exit' to finish): ")
        if name.lower() == 'exit':
            break
        age = input("Enter age: ")
        city = input("Enter city: ")

        data_dict.append({'Name': name, 'Age': age, 'City': city})
    return data_dict


filename = 'output.csv'

data_dict = read_dictionary_from_user()

try:
    with open(filename, mode='w', newline='') as csvfile:

        csv_writer = csv.DictWriter(csvfile, fieldnames=data_dict[0].keys())
        csv_writer.writeheader()

        csv_writer.writerows(data_dict)

    print(f"Data written to {filename} successfully.")

except Exception as e:
    print(f"An error occurred while writing to the file: {e}")

try:
    with open(filename, mode='r', newline='') as csvfile:
        csv_reader = csv.reader(csvfile)
        print("\nContent of the CSV file:")
        for row in csv_reader:
            print(row)

except FileNotFoundError:
    print(f"The file {filename} was not found.")
except Exception as e:
    print(f"An error occurred while reading the file: {e}")
```

Output

```
24mca6@softlab-ThinkCentre-M92p:~/pylab/cycle_7$ python3 exp4.py
Enter name (or type 'exit' to finish): Afna
Enter age: 21
Enter city: Ernakulam
Enter name (or type 'exit' to finish): Ashik Muhammed K,n
Enter age: 22
Enter city: ernakulam
Enter name (or type 'exit' to finish): Bhavya
Enter age: 23
Enter city: malappuram
Enter name (or type 'exit' to finish): exit
Data written to output.csv successfully.

Content of the CSV file:
['Name', 'Age', 'City']
['Afna', '21', 'Ernakulam']
['Ashik Muhammed K,n', '22', 'ernakulam']
['Bhavya', '23', 'malappuram']
```