

LAB CYCLE 7

PROGRAM NO:1

AIM Write a Python program to read a file line by line and store it into a list.

PROGRAM CODE

```
def read_file_to_list(filename):  
    with open(filename, 'r') as file:  
        lines = [line.strip() for line in file]  
    return lines
```

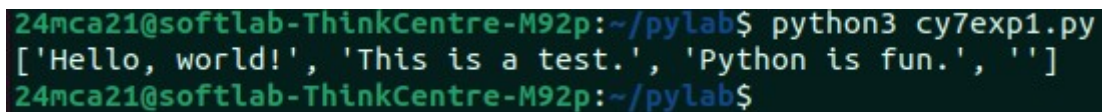
```
filename = 'example.txt'  
lines_list = read_file_to_list(filename)
```

```
print(lines_list)
```

example.txt

```
Hello, world!  
This is a test.  
Python is fun.
```

OUTPUT



```
24mca21@softlab-ThinkCentre-M92p:~/pylab$ python3 cy7exp1.py  
['Hello, world!', 'This is a test.', 'Python is fun.', '']  
24mca21@softlab-ThinkCentre-M92p:~/pylab$
```

PROGRAM NO:2

AIM Python program to copy odd lines of one file to other

PROGRAM CODE

cy7exp2.py

```
def copy_odd_lines(source_file, destination_file):  
    with open(source_file, 'r') as src:  
        lines = src.readlines()  
  
    with open(destination_file, 'w') as dest:  
        for i in range(0, len(lines), 2):  
            dest.write(lines[i])
```

```
source = "sample.txt"  
destination = "odd_lines.txt"  
copy_odd_lines(source, destination)  
print("Odd lines have been copied.")
```

sample.txt

```
Hello, this is the first line.  
This is the second line.
```

Here comes the third line.
And finally, the fourth line.

OUTPUT

```
24mca21@softlab-ThinkCentre-M92p:~/pylab$ python3 cy7exp2.py
Odd lines have been copied.
24mca21@softlab-ThinkCentre-M92p:~/pylab$
```

```
GNU nano 4.8      odd_lines.txt
Hello, this is the first line.
Here comes the third line.
```

PROGRAM NO:3

AIM Write a Python program to read each row from a given csv file and print a list of strings.

PROGRAM CODE

```
import csv

def read_csv_file(filename):
    with open(filename, mode='r', newline='') as file:
        reader = csv.reader(file)
        for row in reader:
            print(row)

csv_filename = "example.csv"
read_csv_file(csv_filename)
```

example.csv

Hello, this is the first line.
This is the second line.
Here comes the third line.
And finally, the fourth line.

OUTPUT

```
24mca21@softlab-ThinkCentre-M92p:~/pylab$ python3 cy7exp3.py
['Hello', ' this is the first line.']
['This is the second line.']
['Here comes the third line.']
['And finally', ' the fourth line.']
24mca21@softlab-ThinkCentre-M92p:~/pylab$ _
```

PROGRAM NO:4

AIM Write a Python program to read specific columns of a given CSV file and print the content of the columns.

PROGRAM CODE

cy7exp4.py

```
import csv
def read_specific_columns(filename, columns):
    with open(filename, mode='r', newline='') as file:
        reader = csv.reader(file)
        for row in reader:
            selected_columns = [row[i] for i in columns]
            print(selected_columns)

csv_filename = "data.csv"
columns_to_read = [0, 2]
read_specific_columns(csv_filename, columns_to_read)
```

data.csv

```
Name, Age, City
John, 28, New York
Anna, 22, London
Peter, 34, Berlin
Maria, 25, Madrid
David, 30, Paris
```

OUTPUT



```
24mca21@softlab-ThinkCentre-M92p:~/pylab$ python3 cy7exp4.py
['Name', ' City']
['John', ' New York']
['Anna', ' London']
['Peter', ' Berlin']
['Maria', ' Madrid']
['David', ' Paris']
24mca21@softlab-ThinkCentre-M92p:~/pylab$ _
```

PROGRAM NO:5

AIM Write a Python program to write a Python dictionary to a csv file. After writing the CSV file, read the CSV file and display the content.

PROGRAM CODE

```
import csv
def write_dict_to_csv(filename, data):
    with open(filename, mode='w', newline='') as file:
        writer = csv.DictWriter(file, fieldnames=data[0].keys())
        writer.writeheader()
        writer.writerows(data)

def read_csv_file(filename):
    with open(filename, mode='r', newline='') as file:
        reader = csv.DictReader(file)
        for row in reader:
            print(row)
```

```
dict_data = [  
    {'Name': 'John', 'Age': 28, 'City': 'New York'},  
    {'Name': 'Anna', 'Age': 22, 'City': 'London'},  
    {'Name': 'Peter', 'Age': 34, 'City': 'Berlin'}  
]
```

```
csv_filename = "output.csv"  
write_dict_to_csv(csv_filename, dict_data)  
print("CSV file content:")  
read_csv_file(csv_filename)
```

OUTPUT

```
24mca21@softlab-ThinkCentre-M92p:~/pylab$ python3 cy7exp5.py  
CSV file content:  
{'Name': 'John', 'Age': '28', 'City': 'New York'}  
{'Name': 'Anna', 'Age': '22', 'City': 'London'}  
{'Name': 'Peter', 'Age': '34', 'City': 'Berlin'}  
24mca21@softlab-ThinkCentre-M92p:~/pylab$
```