

## PES UNIVERSITY, BENGALURU

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# UE25CS151A – PYTHON FOR COMPUTATIONAL PROBLEM SOLVING LAB MANUAL

## WEEK 7

### TOPICS:

#### Programs on File and File Manipulations

### OBJECTIVE:

Solve practical problems using Files.

**NOTE:** Use **pythonlab.csv** file to work on the below questions.

### Problem Statement 1:

Read the contents of pythonlab.csv and display each record neatly in separate lines.

### Output:

```
Name,Location,Birthdate,Position,Salary
Antony,Chennai,12-05-1988,Software Engineer,62000
Meena R,Cochin,25-03-1992,HR Executive,45000
Ravi Shankar,Madurai,14-07-1985,Project Manager,82000
Sarah,Mangalore,18-09-1990,Data Analyst,55000
Pradeep Raj,Bengaluru,01-12-1994,System Administrator,48000
Anitha S,Cochin,22-02-1989,Software Tester,52000
Vignesh M,Hyderabad,05-10-1986,Team Lead,76000
Divya K,Trivandrum,17-04-1995,UI Designer,47000
Gokul N,Mysuru,09-06-1993,Network Engineer,54000
Karthik R,Chennai,15-08-1987,DevOps Engineer,68000
Akbar,Mysuru,28-11-1991,Business Analyst,60000
Suresh P,Hyderabad,30-01-1984,Database Administrator,75000
Priya L,Madurai,12-07-1996,Technical Writer,42000
Balaji T,Bengaluru,09-09-1983,Product Manager,88000
Keerthana G,Cochin,21-12-1995,Support Engineer,46000
```

### Problem Statement 2:

Count how many employee records are present in the file (excluding the header).

### Output:

Total number of employees: 15

### **Problem Statement 3:**

Display only the Name and Position columns for all employees.

#### **Output:**

```
Antony - Software Engineer
Meena R - HR Executive
Ravi Shankar - Project Manager
Sarah - Data Analyst
Pradeep Raj - System Administrator
Anitha S - Software Tester
Vignesh M - Team Lead
Divya K - UI Designer
Gokul N - Network Engineer
Karthik R - DevOps Engineer
Akbar - Business Analyst
Suresh P - Database Administrator
Priya L - Technical Writer
Balaji T - Product Manager
Keerthana G - Support Engineer
```

### **Problem Statement 4:**

Print names of employees who earn more than ₹50,000 along with their salary.

#### **Output:**

```
Antony - 62000
Ravi Shankar - 82000
Sarah - 55000
Anitha S - 52000
Vignesh M - 76000
Gokul N - 54000
Karthik R - 68000
Akbar - 60000
Suresh P - 75000
Balaji T - 88000
The number of employees drawing sal greater than 50000: 10
```

### **Problem Statement 5:**

Read the file and count how many employees are from each location.

#### **Output:**

```
Chennai : 2
Cochin : 3
Madurai : 2
Mangalore : 1
Bengaluru : 2
Hyderabad : 2
Trivandrum : 1
Mysuru : 2
```

---

### **Problem Statement 6:**

Identify the employee with the maximum salary and display their details.

#### **Output:**

Highest Paid Employee: Balaji T

Details: ['Balaji T', 'Bengaluru', '09-09-1983', 'Product Manager', '88000']

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### **Problem Statement 7:**

Create a new file names.txt containing only employee names from the dataset

#### **Output:**

Names written to names.txt



```
jupyter names.txt ✓ a
File Edit View Language
1 Antony
2 Meena R
3 Ravi Shankar
4 Sarah
5 Pradeep Raj
6 Anitha S
7 Vignesh M
8 Divya K
9 Gokul N
10 Karthik R
11 Akbar
12 Suresh P
13 Priya L
14 Balaji T
15 Keerthana G
16
```

### **Problem Statement 8:**

Create a file before1990.txt with details of employees born before 1990.

#### **Output:**

Data written to before1990.txt

jupyter before1990.txt ✓ a few seconds ago

```
File Edit View Language
1 Antony,Chennai,12-05-1988,Software Engineer,62000
2 Ravi Shankar,Madurai,14-07-1985,Project Manager,82000
3 Anitha S,Cochin,22-02-1989,Software Tester,52000
4 Vignesh M,Hyderabad,05-10-1986,Team Lead,76000
5 Karthik R,Chennai,15-08-1987,DevOps Engineer,68000
6 Suresh P,Hyderabad,30-01-1984,Database Administrator,75000
7 Balaji T,Bengaluru,09-09-1983,Product Manager,88000
8
```

### Problem Statement 9:

Read all employee records and display only the names sorted by salary (highest first).

#### **Output:**

```
Balaji T - 88000
Ravi Shankar - 82000
Vignesh M - 76000
Suresh P - 75000
Karthik R - 68000
Antony - 62000
Akbar - 60000
Sarah - 55000
Gokul N - 54000
Anitha S - 52000
Pradeep Raj - 48000
Divya K - 47000
Keerthana G - 46000
Meena R - 45000
Priya L - 42000
```

### Problem Statement 10:

List all distinct job positions from the file

#### **Output:**

```
Unique Positions:
Support Engineer
Product Manager
Data Analyst
Project Manager
Business Analyst
Software Tester
Database Administrator
Team Lead
Software Engineer
DevOps Engineer
```

Simplicity is the ultimate sophistication — even in code