**Open Source Software Lab (15B17CI575)**

**ODD 2025**

**Evaluation test -1**

**Max Time: 50 Minutes Max marks: 15**

**Instructions:**

1. All students must save all their programs with the nomenclature (EnrollNo\_Evaluation1\_QuestionNo). Also, store the Output screenshots in a document as well.

**ODD Set**

**Q1. [5 Marks]**

**Scenario: Exam Result Filtering**  
A university stores the marks of students in a dictionary where **key = student name** and **value = marks**. The Dean wants to quickly find out which students scored above **75 marks**.

Write a Python program to:

1. Print the names of students scoring more than 75.
2. If no such student exists, print "No high scorer found."

**Example Input:**

marks = {"Alice": 82, "Bob": 60, "Charlie": 91, "David": 45, "Eva": 76}

**Expected Output:**

Students scoring more than 75:

Alice

Charlie

Eva

**Q2. [10 Marks]**

**Scenario: Website Log Analyzer**  
You are working as a **system administrator**. The web server stores daily requests in a file server.log. Each line of the log contains text such as:

Error at line 1

Warning at line 2

Error at line 3

Write a Python program that:

1. Reads server.log line by line.
2. Counts the frequency of each word (case-insensitive) using a dictionary.
3. Prints the **top 5 most frequent words**.
4. Uses a **set** to display all unique words.
5. Prints the **total number of lines**.

**Expected Output:**

Top 5 frequent words:

error: 3

warning: 2

at: 5

line: 5

1: 1

Unique words: {'1','2','3','4','5','error','warning','at','line'}

Total number of lines = 5

**Even Set**

**Q1. [5 Marks]**

**Scenario: Employee Attendance Tracker**  
A company tracks employee attendance daily. For two days, the HR manager has two sets:

* present\_yesterday
* present\_today

Write a Python program to:

1. Find employees present on **both days**.
2. Find employees who were present **yesterday but absent today**.

**Example Input:**

present\_yesterday = {"Amit","Riya","Neha","Sohan"}

present\_today = {"Riya","Neha","Rahul"}

**Expected Output:**

Present on both days: {'Riya', 'Neha'}

Absent today but present yesterday: {'Amit', 'Sohan'}

**Q2. [10 Marks]**

**Scenario: Library Management System**  
You are hired to design a simple **library inventory** system. The librarian wants to:

1. Store books in a dictionary (key = book title, value = number of copies).
2. Add a new book or update copies if the book exists.
3. Borrow a book (reduce count if available, else show "Book not available").
4. Save the inventory into a file library.txt.
5. Read back from the file and display the inventory.

**Example:**

* Initial Inventory: {"Python Basics": 3,"Data Science": 2,"AI Handbook": 1}
* Borrow: "Python Basics"
* Save to file → library.txt

**Expected Output (from file):**

Python Basics : 2

Data Science : 2

AI Handbook : 1