

Lab 2: Case-Based Study of Python Fundamentals

Sumathi L

•

Dec 19, 2025

A department wants to analyze the academic performance of students enrolled in a course in order to identify students who may require academic support. Student data includes academic scores, attendance, and study habits. The system should process this data and generate a performance report.

Each student record contains:

- →
- → String
- →
- Assignment score
- Internal test score
- Attendance percentage
- Hours studied per week

Write a Python program to perform the following (minimum)tasks:

Store all in a .

Store student academic details using a .

Write a to calculate the average score of a student.

Write a to determine the academic risk level of a student.

Use to process multiple student records.

Display a structured performance report for each student.

```
student_ids = ('S101', 'S102', 'S103', 'S104')
students = {
'S101': {'name': 'Asha', 'assignment': 78, 'test': 80, 'attendance': 92, 'hours': 8},
'S102': {'name': 'Ravi', 'assignment': 65, 'test': 68, 'attendance': 85, 'hours': 5},
'S103': {'name': 'Meena', 'assignment': 88, 'test': 90, 'attendance': 96, 'hours': 10},
'S104': {'name': 'Kiran', 'assignment': 55, 'test': 58, 'attendance': 78, 'hours': 4}
}
```