Open Source Software Lab

Evaluation 1

Wednesday (28 August 2024) – 3 to 5 PM

Time Duration: 50 Minutes **Maximum Marks: 15**

SET A (ODD MACHINE)

Q.1 Develop a Python program to manage student grades in a school. Use dictionaries to store student details such as name, student ID, class, and a list of grades. Implement functions to add new students, update grades, calculate the average grade for each student, and generate a report showing the top-performing students in each class.

Functions to Implement:

- add_student(): Add a new student to the system.
- update_grades(): Update the grades for an existing student.
- calculate_average(): Calculate and return the average grade for a student.
- generate_top_students_report():Generate a report of top-performing students in each class.

SET B (EVEN MACHINE)

Q.1 Create a Python program to manage a library's book inventory. Use dictionaries to store book details such as title, author, ISBN, genre, and availability status. Implement functions to add new books, update book details, search for books by ISBN, and generate a report of all available books in each genre.

Functions to Implement:

- add_book(): Add a new book to the library's inventory.
- update_book_details(): Update the details of an existing book.
- search_by_isbn(): Search for a book using its ISBN.
- generate_genre_report(): Generate a report of available books by genre.

Note: Upload a word file on Google Classroom which contains the following:

- **Link to your GitHub account**
- **Codes for questions 1 along with the URL of the repository**