Lab Task 4

1. You are tasked with developing a Python program for managing a collection of tuples that represent employee records. Each employee record contains the employee's ID, name, department, and years of service. The program should allow you to perform the following operations:
    a. **Insertion**: Create a function that inserts a new employee record into the collection. The function should accept the employee's ID, name, department, and years of service as input and add a new tuple to the collection.
    b. **Deletion**: Implement a function that removes an employee record based on their ID. If the employee is found, the record should be removed; otherwise, provide a suitable message.
    c. **Update:** Create a function to update an employee's years of service based on their ID. If the employee is found, the years of service should be modified; otherwise, provide a message indicating that the employee was not found.
    d. **Print:** Develop a function that prints all the employee records in a tabular format, displaying the ID, name, department, and years of service for each employee.

    Your program should provide a menu-based interface that allows users to choose these operations. Users can repeatedly insert, delete, or update employee records as needed and print the updated collection. Ensure the program's logic maintains the integrity of the tuple data structure and handles user inputs gracefully.

    Please outline the steps and code for implementing this tuple management system and provide sample interactions that demonstrate the use of each operation.

2. Reviews are evaluative or critical assessments, comments, or opinions provided by individuals regarding a product, service, experience, or any subject of interest. They are often used to express one's perspective, experiences, or feelings about a particular entity. Reviews are commonly found in various contexts, including product reviews for online shopping, restaurant reviews, movie critiques, book evaluations, and more. In the context of software development and data analysis, reviews may be text data that users generate to share their thoughts and feedback.

    You are tasked with creating a Python program for managing textual reviews. Reviews are typically written by users to express their opinions and feedback on various topics, such as products, services, or experiences. In this lab task, you will define functions to process, insert, delete, update, and print these reviews.

    a. **Preprocess Reviews:** Create a function that preprocesses textual reviews. This preprocessing involves converting the text to lowercase, removing punctuation, and eliminating numerical digits. It should accept a review as input and return the preprocessed version.

b. **Insert Review**: Define a function that allows users to insert a new review into a collection of reviews. The function should accept the review text and add it to the collection.

c. **Delete Review**: Implement a function for removing a specific review from the collection. Users should provide the review they want to delete, and the function should remove it if found.

d. **Update Review**: Create a function that enables users to update an existing review. Users should specify the review they wish to update, and the function should replace it with the new version.

e. **Print Reviews**: Develop a function that prints all reviews in the collection. It should iterate through the reviews and display each one.

Your program should provide a user-friendly menu-driven interface that allows users to choose these review management operations. Users can repeatedly preprocess, insert, delete, update, or print reviews as needed. Please outline the code and the steps for implementing these functions and provide sample interactions to demonstrate the usage of each operation.