

# PYTHON DICTIONARIES

**Deadline: 19 Feb 2024**

**Solve these questions:**

## **1. Word Counter:**

- Write a program that reads a sentence and counts the number of times each word appears. Use a dictionary to store the word counts.

## **2. Grade Calculator:**

- Create a program that asks the user for their scores in different subjects and calculates their overall grade based on a grading scale stored in a dictionary.

## **3. Shopping List Manager:**

- Develop a program that allows users to add, remove, and check off items on a shopping list stored in a dictionary.

## **4. Movie Rating Tracker:**

- Design a program that lets users rate movies on a scale from 1 to 5. Use a dictionary to store movie titles and their average ratings.

## **5. Temperature Converter:**

- Build a program that converts temperatures between Celsius and Fahrenheit using a dictionary to store conversion factors.

## **6. Phonebook Organizer:**

- Create a program that stores names and phone numbers in a dictionary. Offer options to add, search, and update contacts.

## **7. Restaurant Menu Parser:**

- Write a program that reads a restaurant menu file (text or CSV) and stores items, prices, and categories in a dictionary. Allow users to browse by category or search for specific items.

## **8. Password Guesser:**

- Design a simple program that generates random passwords from a set of characters (lowercase, uppercase, numbers, symbols). The password length and character limitations can be stored in a dictionary.

## **9. Song Organizer:**

- Develop a program that stores song titles, artists, and genres in a dictionary. Include functions to sort by different criteria (title, artist, genre) and search for specific songs.

#### **10. Travel Budget Tracker:**

- Create a program that allows users to track their travel expenses by category (e.g., transportation, accommodation, food). Use a dictionary to store categories and their corresponding expenses.