Karnatak Law Society's

GOGTE INSTITUTE OF TECHNOLOGY

Udyambag Belagavi -590008

Academic Year 2021-22 (Odd Semester)

Semester: IV **Course: Python Programming (18CSL46)**

LIST OF TERMWORKS

Term Work – 1 (Lists)

1) Develop a menu driven program to implement a queue.The operations would be

   b. Add an item to the queue

   c. Delete an item from queue

   d. Display the queue

Term Work – 2 (Dictionaries)

2) Store the following information in a dictionary:
   Course Code: Course Name, Faculty, Number of registrations.
   Perform the following operations using functions:
   a. Find Course Name that has highest number of registrations.
   b. Given the Course Code, display the associated details.
   c. Display details of all courses.

Term Work – 3 (Files)

3) Write a Python program to read the book information from the user and store in a CSV file containing rows in the following format:

bookNo, title, author, price

Develop a menu-driven program (with functions for each) with the following options:

1: Search Book by author

2: Search Books below specified price (Raise an exception if price entered is <= 0)

3: Search Books where title contains the specified word

4: Exit

Term Work – 4 (OOP)

4) Create an object-oriented program that allows you to enter data for customers and employees.

Problem Details

Create a Person class that provides attributes for first name, last name, and emailaddress. This class should provide a property or method that returns the person's fullname.

Create a Customer class that inherits the Person class. This class should add anattribute for a customer number.

Create an Employee class that inherits the Person class. This class should add anattribute for a PAN number.

The program should create a Customer or Employee object from the data entered bythe user, and it should use this object to display the data to the user. To do that, theprogram can use the isinstance() function to check whether an object is a Customer orEmployee object.

Term Work – 5 (Database)

5) Write a Python program to perform the following:

a. Create a database named “products.db”

b. Create a table named “products” that has the following fields:

prodID: int

name: text

quantity: int

price: real

c. Insert n records into the table reading the values for each item from the user.

d. Display the recordset after fetching all the rows.

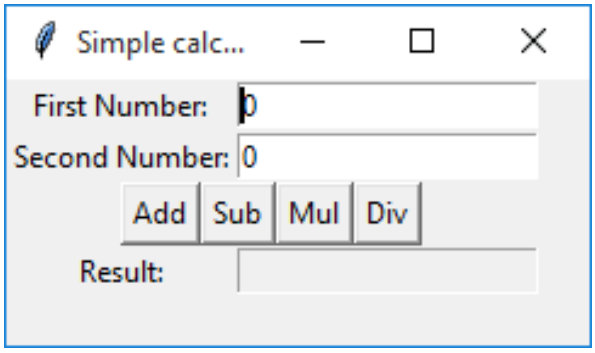
e. Delete a product whose product ID is entered by the user.

f. Increase the price of all products whose current price is less than Rs.50, by 10%.

g. Display all the products whose quantity is less than 40.

Term Work – 6 (GUI)

6)Develop the following GUI application.



Term Work – 7 (NumPy)

7) Three IA's are conducted for a class of 10 students for the subject Maths. The name, marks and USN are read from a file in.txt. Find the average of the IA for each student and write the USN and average to a file out.txt. Display the highest average of the class on the console.

Term Work – 8 (Pandas)

8) Write a Pandas program to create a Data Frame from csv and perform the following operations:

a) Display column names of data frame
b) Read the column name and display unique values,
c) Display frequency of occurrence of each unique value.
d) Count of total number of records in the Dataframe.