Dt-15/03/2023

FILES CONCEPTS

Data Structures

List

Tuple

Set

Dictionary

Permanent Memory

Files

- Place where we store small volume of data
- Personal information

Database

- Place where large volume of data is stored which is not changed frequently.
- Student data, emp data, Product data

BigData

- Place where very large volume of data is stored (Humongous) which is changed very frequently.
- Youtube, Facebook, Email.

Files:

Place where we store small volume of data.

Types of Files:

Text File

- In this data is stored in the form of list.
  .txt file
  .csv file

Binary File

- In this data is stored in Binary format.
  Image files
  Audio files

Video files

Open

- Purpose for which file is opened is referred as “Mode”
- Open(“<file name with location>”,”<mode>”)
- It return file object which consists of all details of file.

Mode of Files:

- Read→ “r”
  - F=open(“abc.txt”,”r”)
  - Prerequisite: File should exist.
  - Otherwise: Error(File Note Found Error)
  - Read()→ read all data from file
  - Readline()→It read single line at a time.
  - Readlines()→It return all the lines appended into a list.
  - Cursor Position:
    - Whenever file is opened in “w” mode. Cursor points at starting of time.

- Creating(Write)→ “w”
  - F=open(“abc.txt”,”w”)
  - If file doesn’t exist: Write Mode creates a new file.
  - If File exist: It deletes all previous data and open it as a new file.
  - Cursor Position:
    - Whenever file is opened in “w” mode. Cursor points at starting of time.

- Append→”a”
  - F=open(“abc.txt”,”a”)
  - If file doesn’t exist: It creates a new file.
  - If file exist: It open existing file with previous data to append new data into that.
  - Cursor Position:
    - Whenever file is opened in “a” mode. Cursor points at last of the file.

Dual Operation:

- Reading(Base Mode)+Writing→”r+”
- Writing(Base Mode)+Reading→“w+”
- Appending(Base Mode)+Reading→”a+”

Assignment1➔Copy the data from one file to another file.

Reading data from source file

Write data into new file

Assignment2➔ Merge two files into third file

Reading data from source files.

Write it into third file.

Assignment3➔

Source File:

India, Usa, Uk, Japan ,Canada

Replace Canada with France in same file or copied file.

CSV➔ Comma Separated File

- .txt file has no predefined format.
- .csv file has a predefined format called as tabular format
- Tabular format consists of row and columns,
    - These rows are referred as Records and columns are referred as Features
    - First row of csv file is considered as column label.
    - CSV file doesn't need any predefined software to open it.
- It opened in,
    - Excel (Preferred)
    - Notepad
    - WordPad
    - Browser
    - Word..
- CSV file is also called comma delimited file.
- CSV File is given special importance because most of the legacy system export the data in CSV file format.
- Insert the data into csv file,
    - Row-by-row manner
- Read the data from csv file,
    - Row-by-Row manner

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ASSIGNMENT→

Enter 5 records into file taking from user.

Create -> emp file [EMPID,EMPNAME,EMPDEG,EMPSAL]

Read data,

Add a new column with Location

ASSIGNMENT→

Take two csv files

Merge them into one with only one column label. (Continue, Next)

ASSIGNMENT→

Take 5 records of students [stdid,stdname,eng,sci,comp]

Calculate the total and add it

Calculate the avg and add it.

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EXCEPTION HANDLING:

Error:

It is a process of abnormal termination of program due to some illegal activity.

Types of Errors:

- **Syntax Errors:**
  - Errors which are triggered due to not following the predefined rules while coding.
  - This error are triggered due to mistakes done by programmer or developer.
  - Developer/Programmer are responsible for the type of errors.

- **Run Time Errors:**
  - This errors which are triggered due to wrong input given by the user.
  - End User is responsible for these type of error.

❖ This error are also referred as Exceptions.

Exception Handling:

- Handling run-time errors (Exceptions)
- It is a process of handling exception to avoid abnormal termination of program/application.

Steps:

Try:

Except:

Finally:
