Skill Development Lab

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CA Components

Sr. No	Component	Scheduled date	Marks(100)(CA:40+ ESE 60)
1	Experiential assignment 1(CA)	Feb	20
2	Journal Assignments(10)(CA)	Feb -May	20
3	Experiential assignment 2 (ESE)	April	20
4	Experiential assignment 3(ESE)	April	20
5	MCQ (ESE)	May	10
6	Viva (ESE)	May	10

List of Assignments

Week	Topic
	List of Laboratory Assignments for Python
1	Group Formation And Identification of mini Project
	Getting Started with Python (Example Word count exercise)
2	Build the Hangman Game using Python.
3	Write python code, load the any dataset (example Game_medal.csv), and plot the graph.
4	Write python code, load the any dataset (example Game_medal.csv), and do some basic data cleaning. Ask some questions on that data set.
5	Twitter Sentiment Analysis in Python (Experiential Assignment 1)
	List of Laboratory Assignments for DATA Science with R
6	Getting Started with R installation, R objects and basic statistics.
7	Using R for data pre-processing, exploratory analysis, visualization.
8	Using R for correlation and regression analysis.
9	Data analysis case study using R for readily available data set using any one machine learning algorithm
	List of Assignments for NO SQL Data Stores
10	Implementation of Amazon SimpleDB API and CRUD Operations
11	Implementation of Hadoop HBase API and CRUD Operations
12	Implementation of MongoDB API
13	MCQ 1 + Viva
14	Implementing a simple Recommender System based on user buying pattern (Experiential Assignment 2)
15	Applying linear regression model to a real world problem. (Experiential Assignment 3)

Getting Started with Python (Example Word count exercise)

- **Problem Description**

  The program takes a word from the user and counts the number of occurrences of that word in a file

- **Problem Solution**

  1. Take the file name and the word to be counted from the user.
  2. Read each line from the file and split the line to form a list of words.
  3. Check if the word provided by the user and any of the words in the list are equal and if they are, increment the word count.
  4. Exit.

Program Explanation

1. User must enter a file name and the word to be searched.

2. The file is opened using the open() function in the read mode.

3. A for loop is used to read through each line in the file.

4. Each line is split into a list of words using split().

5. Another for loop is used to traverse through the list and each word in the list is compared with the word provided by the user.

6. If both the words are equal, the word count is incremented.

7. The final count of occurrences of the word is printed.