**In class Programming Assignment – 2**

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**Github Link:** [**https://github.com/akankshaparvathaneni/akanksha.git**](https://github.com/akankshaparvathaneni/akanksha.git)

**Problem 1:** To take two strings from the user: first\_name, last\_name. Pass these variables to the fullname function that should return the (full name).

**Input:** 2 Strings

**Output:** String

**Solution:**

1. The user strings are taken, stored in the “first\_name”, “last\_name” variables, sent to the function “full\_name” and concatenated into a single string using the ‘+’ operator.

2. The user string is taken, stored in the “original\_string” variable, sent to the function “string\_alternative”.

3. Then alternate characters are returned from the function using the slicing operator with a step of 2.

**Code:**

A screenshot of a computer program

Description automatically generated

**Output:**

A close up of a text

Description automatically generated

**Problem 2:** To find the word count in a file (input.txt) for each line and then print the output.

**Input:** input.txt file

**Output:** output.txt file

**Solution:**

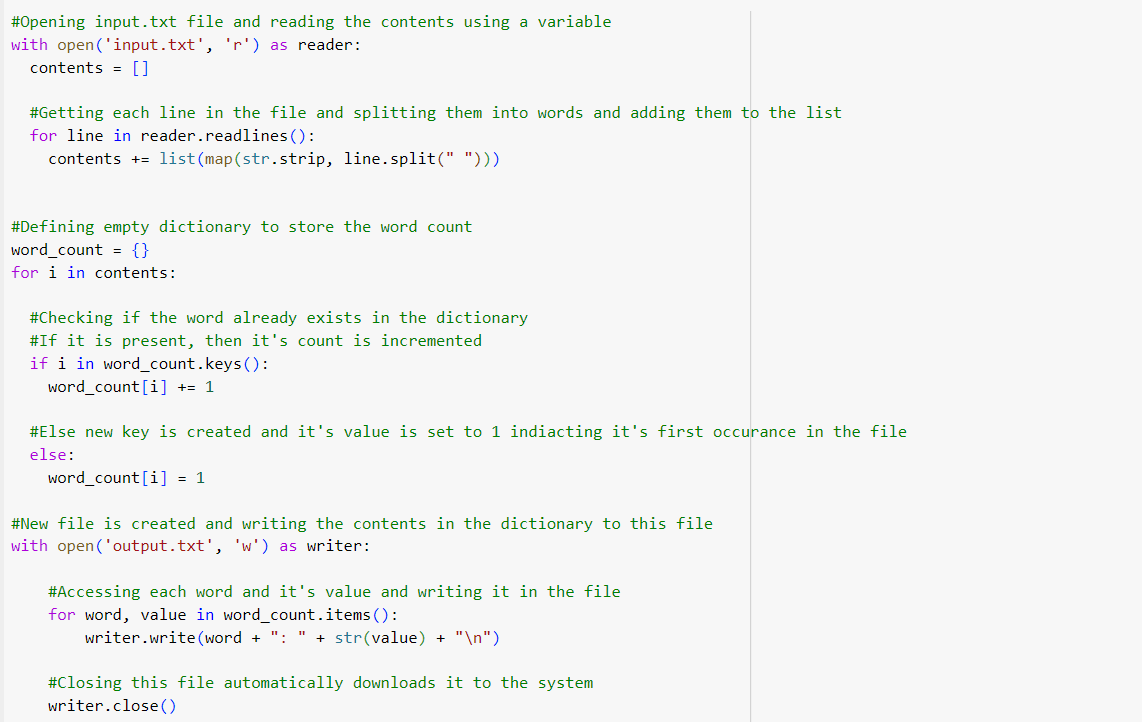
1. input.txt file is uploaded into the colab and is accessed with open() method in read only access mode.

2. Contents in the file are accessed and stored in a list called “contents”.

3. The words in the list count are maintained in a dictionary and are used for writing the output into a file.

4. The open() is used to create a file called “output.txt” and contents in the dictionary are copied to the file and are downloaded to the local.

**Code:**



**Output:**

**input.txt:**

A screenshot of a computer

Description automatically generated

**Output.txt:**

A screenshot of a computer

Description automatically generated

**Problem 3:** To read heights (inches.) of customers into a list and convert these heights to centimeters in a separate list using: 1) Nested Interactive loop 2) List comprehensions

**Input:** List

**Output:** List

**Solution:**

1. The program takes a series of heights in centimeters as input from the user.

2. First, the heights are converted into inches using a loop. Second, heights are converted into inches using list comprehension.

3. The resultant lists are printed on the console.

**Code:**

A screenshot of a computer code

Description automatically generated

**Output:**

A screenshot of a computer

Description automatically generated