**SAVEETHA SCHOOL OF ENGINEERING**

**SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL**

**SCIENCES**

**COMPUTER SCIENCE AND ENGINEERING PROGRAM**

**CSA0830-Python programming for Business applications-**

**Reg no:192111142**

**Name: M.Ooha**

**COURSE LEARNING OUTCOME**

On successful completion of the course, the student will be able to:

1. Find solutions to simple computational problems

2. Decompose a Python program into functions and develop programs with conditional, loop constructs and strings

3. Represent compound data using Python lists, tuples, and dictionaries.

4. Read and write data from/to files in Python Programs and create modules and packages.

5. Access CSV file and plot different graphs by connecting the database

**Course learning outcome(CLOs) Vs Assignment mapping**

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| --- | --- | --- | --- | --- | --- |
| **Assignment** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
| **1** | **yes** | **yes** | **yes** | **no** | **no** |

**APPLICATION ASSIGNMENT -MINI PROJECT**

**ASSIGNMENT TITLE(MINI PROJECT):**

**FARENHEIT TO CELSIUS CONVERTER**

**ASSIGNMENT DESCRIPTION:**

A Fahrenheit to Celsius converter is a practical tool designed to convert temperatures between the Fahrenheit and Celsius scales. It operates based on a simple mathematical formula where the temperature in Fahrenheit is subtracted by 32 and then multiplied by 5/9 to obtain the equivalent temperature in Celsius. This conversion is particularly useful for individuals needing to understand temperature readings across different measurement systems, especially in scientific, meteorological, and everyday contexts. The Fahrenheit scale, developed by Daniel Gabriel Fahrenheit, is primarily used in the United States and a few other countries, while the Celsius scale, also known as the centigrade scale, is the standard system of temperature measurement in most of the world. The converter allows users to input a temperature in Fahrenheit and instantly receive its Celsius equivalent, facilitating easy understanding and comparison. Its user-friendly interface often includes additional features such as reverse conversion, allowing users to input Celsius temperatures and obtain their Fahrenheit equivalents. Some converters also provide temperature scales beyond the freezing and boiling points of water for comprehensive functionality. With the global nature of modern communication and travel, understanding temperature in both Fahrenheit and Celsius is essential for effective communication and comprehension across borders. Online converters, mobile applications, and physical devices offer convenient access to temperature conversion tools, aiding professionals, students, and individuals in various fields. The widespread availability of these converters ensures that individuals can make accurate temperature conversions with ease, regardless of their location or background. Temperature conversion is fundamental in fields like meteorology, engineering, cooking, and healthcare, where precise temperature measurements are crucial for accurate results. Additionally, understanding temperature in both scales fosters scientific literacy and facilitates international collaboration in research and development. Whether for personal use, academic study, or professional applications, a Fahrenheit to Celsius converter serves as an indispensable tool for navigating the diverse world of temperature measurement. It promotes efficiency, accuracy, and clarity in communicating temperature information across different contexts and geographic regions, contributing to enhanced understanding and collaboration in various fields.

Top of Form

**ASSIGNMENT WORK DISTRIBUTION:**

**Preliminary stages (Assignment 1):**

1. Gather bilingual text corpora or datasets for the source and target languages. These datasets serve as the training data for the translation model.
2. Choose an appropriate translation model based on the complexity of the task, available resources, and desired performance. Train the selected model on the pre-processed bilingual data
3. Evaluate the performance of the trained model using appropriate evaluation metrics
4. Develop a user-friendly interface for users to input text in the source language and view the translated output in the target language.