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**1. Brief Description of the Program**

This Python program creates a local SQLite database called population\_DT.db and sets up a table named population. It then inserts population data for the year 2023 for 10 selected cities in Florida. The program demonstrates the creation of basic databases, table setup, and data insertion using Python's sqlite3 module. It also includes a helper function to confirm the table was successfully created.

**2. Functions and Their Details**

create\_population\_db()

Purpose:  
Creates the database and inserts 2023 population data for 10 Florida cities.

Parameters:  
None

Returns:  
None

Function Details:

* Connects to a database file called population\_DT.db (creates it if it doesn't exist).
* Creates a table named population with three fields: city, year, and population.
* Defines a dictionary with 10 Florida cities and their 2023 population numbers.
* Inserts one record per city into the population table.

check\_table\_exists(db\_path, table\_name)

Purpose:  
Checks whether the specified table exists in the database.

Parameters:

* db\_path (str): File path to the SQLite database.
* table\_name (str): Name of the table to check for.

Returns:

* True if the table exists.
* False if it does not.

Function Details:

* Connects to the specified SQLite database.
* Queries the internal sqlite\_master table to check for the given table name.
* Closes the connection and returns a boolean result.

**3. Logical Steps of the Program**

1. Import Libraries
   * sqlite3 is imported to allow working with the SQLite database.
2. Define create\_population\_db()
   * Sets up a connection to population\_DT.db.
   * Uses SQL to create the population table with fields: city, year, and population.
   * Defines a dictionary of 10 Florida cities and their 2023 populations.
   * Iterates over the dictionary and inserts each city’s data into the table.
3. Call create\_population\_db()
   * Executes the function to create the database and populate it with data.
4. Define and Call check\_table\_exists()
   * Verifies that the population table was successfully created.
   * Prints or returns True if the table exists (used for confirmation/debugging).

**4. Link to your COP2373 repository:**

<https://github.com/Shinymon/COP2373>

A screen shot of a graph

AI-generated content may be incorrect.**5. Screenshot:**