LaMar Anderson CVAP (Citizen Voting Age Population) Analysis Program

Objective:
This program analyzes U.S. Census Bureau data on the Citizen Voting Age Population (CVAP) by race and ethnicity across U.S. states. It calculates the percentage of each selected racial group relative to the total CVAP in each state and displays this information using text-based bar charts.

Input:
One CSV file downloaded from the U.S. Census site (State-level CVAP estimates for 2019–2023)

Output:
A series of bar-style text graphs displayed in the terminal
Each graph shows the percentage of CVAP by race per selected state

PSEUDOCODE
1. Open the CSV File
Open the CSV file containing state-level CVAP data from 2019–2023.
Prepare to read each line from the file, starting after the header.

2. Set Up Data Structures
Create an empty list to store total CVAP values by state.
Create a dictionary where:
Each racial or ethnic group maps to an empty list.
Example groups:
"Black or African American Alone", "Asian Alone", "White Alone, Not Hispanic or Latino"
"Hispanic or Latino"

3. Loop Through the File Rows
For each row in the file:
Read the state name, race/ethnicity group, and CVAP estimate value.
If the group is "Total":
Add that CVAP estimate to the total list for that state.
Else if the group is one of the target racial groups:
Add the CVAP estimate to the matching list in the dictionary for that group.

4. Calculate Percentages
For each racial group in the dictionary:
Match each group entry with its corresponding state in the total CVAP list.
Divide the group's CVAP value by the total CVAP value for that state.
Multiply by 100 to get a percentage.
Round the percentage to two decimal places.
Store the result in a new list of [state, percentage] pairs for that group.

5. Select States to Analyze
Create a list of state names to display (e.g., California, Texas, New York, etc.).

6. Create a Text-Based Graph for Each Group
For each racial group:
Print the name of the group.
For each state in the selected list:
Look up the percentage for that group in that state.
Create a bar made of repeated symbols (like #) based on the percentage.
For example: 20% = 10 # symbols
Print the state name, bar, and the exact percentage.

7. End Program
After all graphs are displayed, end the program.

```
California: ### 6.37%
Florida: ####### 14.34%
Georgia: ################ 32.2%
New York: ####### 14.29%
Texas: ###### 13.15%

Asian:
California: ####### 14.46%
Florida: # 2.39%
Georgia: # 3.12%
New York: ### 7.2%
Texas: ## 4.22%

White (Non-Hispanic):

Hispanic or Latino:
California: ############### 31.94%
Florida: ########## 21.44%
Georgia: ### 6.07%
New York: ####### 15.49%
Texas: ############### 31.27%
```