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IST 256: Project

Cheaprent.com: Problem Analysis

Project Change: It was very challenging to find an API for car rentals. While we filled out multiple information to get one sent to us, we were not successful for two weeks. So instead, we created our own tables with very accurate and real data pulled from car rental websites. We first asked if out TA, Wade Stringer would be okay with this change and he approved of it.

Inputs:

* Enter provided search preference (ZipCode, Class or Pick Up Date)
* Enter more specific preference for each of the three search preferences
* Enter provided search preference with other (Company and other, Price and other, Class and other
* Enter more specific preference with other preference.

Outputs:

* For first provided search preference, we ask for users specific preference type
* A table of users specific preference search including only some column names to compare with
* For second provided search preference when users can enter two, we ask for users specific preference types
* A table of users specific preference search with two specifications, including some column names for users to make comparisons

Algorithm:

1. Import pandas and matplotlib.pyplot
2. Read CarRental Excel spreadsheet and load file into a pandas DataFrame
3. Read Address Excel spreadsheet and load file into a pandas DataFrame
4. Slice the first 10 of Availability column
5. Add new column named ‘Pick Up Date’ with the slice as the new rows
6. Merge both CarRental and Address tables by what they have in common, which is zip code. Used inner join with Address on the left
7. List column names of combined tables
8. Create data analysis, such as the last 5, a sample of 10 from the CarRental table
9. Count the quantity of car makes provided in the dataset
10. View only cars with Fiesta model
11. Import folium
12. Find Syracuse latitude and longitude and enter
13. Zoom start on 11 for just Syracuse area
14. Mark all of the store locations in Syracuse, NY
15. Make markers message say the company, city and state
16. Assign variables for all basic search preference, such as Class, ZipCode, Company, and Pick Up Date.
17. Provide what columns will be available for each search preference
18. Create input for users for their basic preference
19. Create a list of optional search preference
20. Create an if, elif, else statement for when users enter an input that is in the data and for when it is not
21. Create if, elif, else statements for all three search preferences
22. Assign variables for all specific search preference, such as Class and other, Company and other, and Price and other
23. Scape data for two preferences at the same time
24. Create input for users for their specific preference
25. Create a list of optional search preference
26. Create an if, elif, else statement for when users enter an input that is in the data and for when it is not
27. Create if, elif, else statements for all three search preferences