Programming Assignment: Assignment 1: Dino Fun World

- Due Jan 22, 2023 by 11:59pm
- Points 20
- Submitting a file upload
- Available Jan 8, 2023 at 12am - Jan 23, 2023 at 9:59am

This assignment was locked Jan 23, 2023 at 9:59am.

**Important Note: This assignment will be evaluated by graders (Manually).

Assignment 1: Dino Fun World

You, in your role as a burgeoning data explorer and visualizer, have been asked by the administrators of a small amusement park in your hometown to answer a couple questions about their park operations. In order to perform the requested analysis, they have provided you with a database containing information about one day of the park's operations.

Provided Database

The database provided by the park administration is formatted to be readable by any SQL database library. The course staff recommends the sqlite3 library. The database contains three tables, named 'checkins', 'attractions', and 'sequences'. The information contained in each of these tables is listed below:

Check-ins:

- Description: check-in data for all visitors for the day in the park. The data includes two types of check-ins, inferred and actual checkins.

- Fields: visitorID, timestamp, attraction, duration, type

Attraction:

- The attractions in the park by their corresponding AttractionID, Name, Region, Category, and type. Regions are from the VAST Challenge map such as Coaster Alley, Tundra Land, etc. Categories include Thrill rides, Kiddie Rides, etc. Type is broken into Outdoor Coaster, Other Ride, Carussel, etc.

- Fields: AttractionID, Name, Region, Category, type

Sequences:

- The check-in sequences of visitors. These sequences list the position of each visitor to the park every five minutes. If the visitor has not entered the part yet, the sequence has a value of 0 for that time interval. If the visitor is in the park, the sequence lists the attraction they have most recently checked in to until they check in to a new one or leave the park.

- Fields: visitorID, sequence

The database file is named 'dinofunworld.db'.

Questions to Answer

The administrators would like you to answer four relatively simple questions about the park activities on the day in question. These questions all deal with park operations and can be answered using the data provided.

Question 1: What is the most popular attraction to visit in the park?

Question 2: What ride (note that not all attractions are rides) has the longest average visit time?

Question 3: Which Fast Food offering has the fewest visitors?

Question 4: Compute the Skyline of number of visits and visit time for the park's ride and report the rides that appear in the Skyline.

Download the Documents Below:

Instructions: **ProgrammingAssignment1.pdf (https://canvas.asu.edu/courses/143180/files/59529228/download?wrap=1)**

Database: **dinofunworld.db (https://canvas.asu.edu/courses/143180/files/59529153/download?wrap=1) (https://canvas.asu.edu/courses/143180/files/59529153/download?download_frd=1)**

Template: **Assignment 1_Template.ipynb (https://canvas.asu.edu/courses/143180/files/60559757?wrap=1) (https://canvas.asu.edu/courses/143180/files/60559757/download?download_frd=1)**