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CS687

Project 1

Theme Park Priority Queue System

The area I would like to build a database for is a theme park priority queue system similar to the style of a Disney World “Fastpass” or a Universal Studios “Virtual Queue”. This database would keep track of who has an appointment for a priority queue for which attraction and at what time. The goal of having a database in this area is to allow the parks to keep track of peoples’ appointments as well as allowing people to easily make or cancel appointments. The database would consist of 5 tables.

The first table would be the GUEST table. This table would keep track of every guest in the park. It would only keep track of each guest’s name and then have a unique identification number them. Each guest would have a name field and a guest\_ID field. This table would only be related to the GUEST\_APPOINTMENTS table.

The second table would be the ATTRACTION table. This table would keep track of every attraction in the park. Similar to the GUEST table, the ATTRACTION table would have a unique identification number for each attraction and would also keep track of each attraction’s name and which area of the park it is in. Each attraction would have a name field, area\_ID field, and an attraction\_ID field. This table would only be related to the APPOINTMENT\_TIMES and PARK\_AREAS table.

The third table would be the APPOINTMENT\_TIMES table. This table would keep track of every appointment time for each attraction. It would contain a unique identification number for each appointment time slot. It would contain the attraction name and time of the appointment. The table would have fields for appointment\_ID, attraction\_ID, and time. This table would be related to the ATTRACTION and GUEST\_APPOINTMENTS tables.

The fourth table would be the PARK\_AREAS table. This table would keep track of every major area in the park. It would contain a unique identification number for each park area and would contain the name of each area. This table would have fields for area\_ID and area\_name. This table would only be related to the ATTRACTION table.

The fifth table would be the GUEST\_APPOINTMENTS table. This table would keep track of every appointment that has been made by guests. It would contain the ID numbers for the guest and the appointment they had made. It would include fields for guest\_ID and appointment\_ID. This table would be related to the GUEST and APPOINTMENT\_TIMES tables.

Structuring the database like this allows us to keep track of every guest, ride, and appointment time, while also allowing guests to very easily make or cancel appointments by simply adding or removing a line in the GUEST\_APPOINTMENTS table.

