Database for keeping management records at an amusement park

Scope of the Database:

It involves keeping the records of all customers, rides, employees, ticket purchases and souvenir and food purchases inside the amusement park.

Description:

This is a database which will be used by the management of the amusement park to keep records and retrieve relevant information which will assist them in their decision making process.This Database also caters to the needs of an online web application through which users can book the entry tickets or ride tickets.Computer systems have also been installed at the local ticket window for that same purpose. The machines will also be connected to this database.Using this database the management can figure out what rides are popular among a particular demographic group. The Database also caters to the management needs of the various food shops in the premises of the park like keeping track of items that are available and its sales. This will not only make selling food seamless with online transactions but also help them analyze their sales data in order to make business decisions. Maintenance of the premises and managing the visitors' experience requires human resources. This database keeps the records of all employees as well as the contractual appointments. Contractual appointments usually include maintenance workers, medical staff and performance artists invited for various events at the park. Employees can order supplies for the amusement park. This Database also assists in keeping purchase and stock records for the same. Regular inspections are conducted for ensuring safety and proper functioning of all the rides. The Database helps to keep track of each such inspection. There is also a Lost Found service provided at various points inside the park, for all complaints an entry is made into this database. The database also keeps the records of all valuable feedback provided by the visitors.

Following are few sample queries that the database system is expected to answer:

1. Retrieve all customers who visited the amusement park on a particular date.
2. Retrieve all customers of age range 12-35.

3. Retrieve all rides that a particular customer can ride
4. Retrieve the week with the most traffic(visitors) in a particular calendar year
5. Retrieve the most popular dish for each food shop
6. Retrieve the most popular ride for a particular age group
7. Retrieve the ride with the highest number of breakdowns in the current calendar year.
8. Retrieve all customers who has ridden all the rides more than 5 times
9. Retrieve the most profitable ride (Profits can be calculated as: price*number of customers-noc*rate)
10. Retrieve the average(mean) time taken to recover the lost item after a complaint
11. Retrieve the employee who has done most night shifts
12. Retrieve all supplies on which expense has increased in this calendar year when compared to last one.