Designing a Database Example

Background

You are responsible for designing the database for the hypothetical project described below. This project addresses only a subset of a real system's requirements.

Statement of Need for a Hypothetical Project

Mississippi State University has many places to dine. Each of the locations is open for different hours. Therefore, the university has contracted with your company to develop a system so that students, staff, and visitors can more easily find a place to eat meals or snacks. After delivery, system administrators in the University's Information Technology Services (ITS) will operate the system. Your task for this project is to design a database for this system.

There are some assumptions and details that you, the database designer, must decide. Be sure to document any assumptions that are not made clear in your design choices.

Additional Requirements

After creating a solution that addresses the statement of need expressed above, what would you add / change if the system also needed to take a user's meal plan into account.

What would you add / change if the system should show a list of open dining locations in order of distance from the user.

Domain Knowledge

Dining Locations and Hours: http://msstatedining.campusdish.com/

Meal Plans: http://msstatedining.campusdish.com/TermsAndConditions.aspx

GPS Coordinates: https://www.maptools.com/tutorials/lat_lon/formats

Deliverable

Entity-Relationship Diagram: Create an Entity-Relationship (ER) diagram for your database, including primary keys, partial keys, key constraints, and total participation constraints and/or other concepts. Define the minimal set of attributes based on the requirements given. Use notes to document information that is not in the diagram.