

Database Project

COMP 2650

Fall 2020

Prof. Nguyen Thai

Database Project Timeline

Activities	Credit	Due
■ Project title	10%	09/27/2020
■ Business statement	15%	10/11/2020
■ Data modeling	20%	11/01/2020
■ Database design	20%	11/15/2020
■ Database implementation	20%	11/29/2020
■ Project report	15%	12/06/2020

Database Project Title

- In this semester, you are **developing a database for a restaurant**
- You have a choice of working on your own or working as a team of two students
- You and your optional teammate are to choose a traditional restaurant for your project
 - Non-traditional restaurant food services such as coffee shops, bakeries, fast foods and food trucks are not allowed
 - A sit-down restaurant with waiter/waitress is required

Database Project Title Examples

- Here are some examples of the traditional restaurant types
 - Italian restaurants
 - Greek restaurants
 - Mexican restaurants
 - Chinese restaurants
 - etc.
- You need to pick a name for your restaurant
- Do not use the names of real restaurants

Database Project Document

- After you have chosen the type of food and named your restaurant, create a Word document called *database_project_document.docx*
- All your works on the project are to be captured in the *database_project_document.docx*
- Only the *database_project_document.docx* will be graded, unless I ask for other materials to be submitted

Project Document Title Page

- Title page format
 - Restaurant name
 - School name
 - Course name
 - Course number
 - Professor name
 - Date of submission
 - Your name and optional teammate name

Restaurant Services Definition Page

- Write one to two paragraphs describing the type of food and services your restaurant provides
- Page format
 - 12-points Arial font
 - Double-line spacing
 - 1-inch page margins

Project Submission

- Each student must submit a copy of the *database_project_document.docx* to get credit
 - Must submit the actual Word document
 - Do not submit links, zip files or images
- You will not get credit for your work if you failed to submit your copy, even though your optional teammate submitted his/her copy on time
- If you and your optional teammate submitted different works, the lower grade will be given to both students
- Due 9/27/2020

Business Statement Criteria

- Your database must support **multiple locations**
- Your business statement must contain the following criteria
 1. Identify key components of the business operations.
 - a. What products do you provide?
 - Pasta, meats, sandwiches, soups, etc.
 - b. What facilities and equipment are used in the business operation?
 - Cooking wares, storages, etc.
 - c. How are employees and finance are managed?
 - Full time and/or part time employees, mortgage, etc.

Business Statement Criteria

2. Identify the business operation rules that are used to manage the business.
 - a. Do you buy certain food and make certain food?
 - b. Restaurant operations:
 - i. What types of food are served in all stores?
 - ii. Are all products prepared at each store?
 - iii. Do all employees only work in a single store?
 - c. Do you also provide take-outs and caterings?
 - d. Do you accept cash only, credit cards only or both?
 - e. Do you provide online reservations, online ordering for take-outs?
 - f. How does the store handle customers with special dietary restrictions?

Business Statement Criteria

3. Track operating cost and identify cost that are rising or above to similar business in the industry.
 - a. Store location:
 - i. Own (mortgage?)
 - ii. Rent (increasing every year? When lease expires?)
 - iii. Do you pay parking spaces for your customers if you do not have parking spaces?
 - b. How do you pay for inventories (food and supplies)?
 - c. Do you have ingredients that are weather dependent or political conflict?
 - d. Do you have to pay high salaries to attract certain type of workers?

Business Statement Criteria

4. Provide data and information to track important date-to-date operations related to customers.
 - a. Certain days are better for business (more customers)
 - i. Is your business more weekdays oriented?
 - Serving professional workers in business districts?
 - ii. Is your business more weekend oriented?
 - In the mall, shopping plaza
 - b. Is your business seasonal?
 - c. How well does your business do on holidays?

Business Statement Criteria

5. Provide relevant business operation information to help managers improve business competitiveness.
 - a. Hours Open (Comparing to your competitors)
 - b. Peak Hours (When do most people come to dine at your restaurants?)
 - c. Any specials offered (What deals you are able to offer to your customers)
 - d. Prices (How do they compare to other restaurants in the vicinity?)
 - e. Set yourself apart from other places (Offer a different atmosphere than regular restaurants?)
 - f. Disadvantages
 - i. No parking
 - ii. Located in the bad neighborhood
 - g. Identify a few ideas to make the business more competitive

Business Statement Documentation

- Business statement must be five pages long in Word paragraphs.
- Format for the business statement is 12 points Arial font with double spacing
- Page margins are one inch wide
- Add the business statement to the bottom of your database_project_document.docx
 - Start new page after Restaurant Services Definition
- Submit the database_project_document.docx to Blackboard for grading
- Due 10/11/2020

Data Modeling

- Your data models must consist of entity lists and entity-relationship diagrams for:
 1. Food items (meals/dishes) the restaurants serve
 - 3 to 5 food types
 2. Facilities and equipment
 3. Employee work hours and salaries
 4. Tracking day-to-day cash flow
 - Income and spending
 5. Competitive
 - Renovation cost and extra earned income
 - Promotion cost and extra earned income

Data Modeling

1. Create a list of entities and their attributes from your business statement
 - You will lose points if you do not create the list of entities and their attributes
2. Create (draw) the entity-relationship diagrams (ERDs and EERDs) for your database using:
 - a. lists of entities from (a) and
 - b. business rules from your business statement
3. Review lecture notes and labs

Data Modeling

- Capture your data modeling entity lists, ERDs and EERDs in the database_project_document.docx
 - Start new page after the business statement
- Submit the database_project_document.docx to Blackboard for grading
- Due 11/01/2020