Project Proposal + Getting Started

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Course Project Overview:

The course project enables students to demonstrate their ability to design and implement a real world relational database including composing and deriving queries. The course project consists of two real world business problems that students can choose from.

General Business Problem 1: You have come across an open source dataset on a subject you are really passionate about. You are required to create and implement a database based on the concepts learned in this course. The final deliverable for this project includes a video presentation of your project and a written executive report which is comprised of an integrated document of the the project deliverable's that were worked on.

Examples of Past Projects From Students Include:

- FEMA Database
- Alabama Tornado Database
- Crime in San Francisco Database
- Crime in Chicago Database
- YouTube Influencer Database
- Restaurant Database
- Car Sales Database
- Pizza Restaurants Database
- Video Games Database

General Business Problem 2: The COVID19 pandemic has upended our current way of life in many different ways. Choose a real world problem caused by COVID19 that a database solution can assist in solving or completely solve. You are required to create and implement the database based on the concepts learned in this course. The final deliverable for this project includes a video presentation of your project and a written executive report which is comprised of an integrated document of the the project deliverable's that were worked on.

Examples of Current Issues Include:

- A dance/fitness/yoga instructor who needs to go virtual
- Coordinating and organizing private learning pods for a neighborhood
- A private chef or caterer who now needs to open a restaurant
- Creating a reporting and monitoring system for an organization regarding COVID19
- A conference/concert/festival that now needs to go virtual

Project Deliverable's:

- Project Proposal 1%
- Relationship model iteration 1%
- Entity relationship iteration 1%
- Logical Model and Normalization iteration 1%
- Database implementation iteration 1%
- Video Demo of Project and Executive Report 20%
  - Professional Quality Report and Video Presentation
  - Final Background (this is from project proposal)
  - Final Relationship Model Diagrams and Explanations
  - Final E-R Diagrams and Explanations
  - Final Logical Model and Normalization Diagrams and Explanations
  - Database Implementation Demo and Explanations
  - At least 10 business questions answered with SQL Queries

Project Selection Criteria:

- Select an opensource dataset from a website such as data.gov or kaggle.com
- Select an opensource dataset that is in a singular, tabular format (or convert to this format. Please provide a link to the dataset for evaluation purposes)
- Some examples of opensource datasets on these websites include Airbnb bookings, Police Data, Product/Vehicle Recalls and much, much, more.
- Select an opensource dataset that will allow you to create a database consisting of at least 4 tables
- Select an opensource dataset that will allow you to most completely utilize all the fields in the dataset
- For artificial data please ensure there at least 100 records generated for each table
- Select an opensource dataset that will allow you to derive interesting or novel insights from the potential queries that will be generated. At least 10 queries need to be generated.

Arguably, the project proposal is the most important document of this project and should at a minimum include the following:

- Background of company/organization/context of dataset
- Brief overview of dataset and dataset characteristics. Discuss if you will utilize all fields in the dataset? If not, why? Rare examples include you may have come across a dataset which should actually be modeled as a set of multiple, hierarchical databases for the organization. How will you choose which database to design and implement?
- If artificial (test data) was generated describe this process and the characteristics of the dataset.
- What information did you learn from the background of the company that will be helpful in the design and implementation of the database?
- Why a database would be helpful and any interesting problems, questions, or novel insights your team hopes to derive from the development and implementation of the database. This will serve as the basis for your reports/queries down the line. Present at least 10 preliminary, interesting questions for the dataset
- Short risk analysis of the project and mitigation tactics(if any)
- Short overview of skillsets that you bring to the project
- Link to the dataset(please consider privately storing as datasets may be removed from their original web source at any time).
- This is arguably the most critical deliverable of the project therefore points will be deducted for each item of the proposal not completed with good faith effort. Proposals should be at least 2 pages and no more than 5 pages.

- Additional details regarding the requirements for iterations will be given in later assignments.
- **Note:** This is an individual effort. Some documentation and examples may refer to groups but those examples are for illustrative purposes only. This is not a group project.
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<Course Project Toolbox> <--Now Active (https://drive.google.com/drive/folders/1sznXmpJr_yFOU89RLOHS1iPTWKA0Fd6H?usp=sharing)

PLEASE MAKE SURE YOU LOGIN FROM UAH ISSUED ACCOUNT!

Points 100

Submitting a text entry box, a website url, a media recording, or a file upload

Due	For	Available from	Until
Sep 6, 2020	Everyone	-	-

+ Rubric