**Deliverable #3 Schema and high level API**

**50 points**

**1 – Update your previous submission.**

* Update based on feedback from earlier deliverables, and any changes / alterations you have discovered since the last document.

**2 – Add two new sections:**

**Schema design**

* Provide a lucidchart of your proposed schema. This should show all data types, PK / FK / relations etc as we have discussed in class.

**API Design**

Provide a list of every interaction the user will have with your system, and a short description of the expected result. IE what it returns, what changes it makes to the database, etc. See example below for suggested format.

In your final project you will implement each API by writing a function call in a high level language ( typically C++ or Java) that will make the appropriate SQL calls to implement the API

**Submit the document as a pdf file via Canvas.**

**What are the questions I will ask when evaluating this document?**

* Did you update the prior submission section to correct any problems noted?
* Does the proposed schema address the business problem you have defined?
* Is the schema will crafted. Proper drawing conventions, relations, etc? Is it properly normalized?
* Does the API specified solve the business problem?
* Is your schema complex enough for a good grade?
  + A one to many mapping
  + A many to Many mapping
  + At least one domain table.
* Does your API demonstrate Insert, Updates and Queries?
* Will the API access / use all of the tables and relationships?

**API Design Example:**

For this example, I will define a high level possible API for the meeting system we are using in class. Note that this pass of the design is interested in general concepts, not precisely what is being passed in and out.

CreateUpdateDelete APIs to create, update the following entities

Employee ( includes phone number information)

Room

Meeting

ListAllDepartments – List all of the departments. Defines valid departments for employees

Add employee to meeting

Remove employee from meeting

Find all employees in meeting

Find all meetings for an employee

Search for meetings that match some criteira ( time, purpose, creator, etc)

Search for employees by fields ( name, department, etc)