CMSC 508 Semester Project Rubric   Name: _____

  Phase 2 - 200 points   Name: _____

                                                                Team # _____

Final documentation:
   A. Updated problem statement. (30 points)
   B. Updated Entity-Relationship diagram. (10 points)
   C. Updated relational design (including functional dependencies and normalization). (10 points)
   D. Database: SQL scripts for creating the database tables, views, triggers, and procedures. (100 points)
   E. Demonstration of a running database and how it successfully solves . (50 points)

Problem Statement
   1. Describes the environment and user groups for a specific database
   2. Identifies the entities that need to be stored within the database
   3. Describes the potential uses for the database

Measure	Excellent	Good	Poor	Unsatisfactory
1	Clearly describes the environment in which the database will be used. Clearly defines roles of all possible user groups	Briefly describes the environment in which the database will be used. Clearly defines roles of some possible user groups	Briefly describes the environment in which the database will be used. Just lists user groups	Mentions an environment and lists a few types of users
2	Lists all entities that would need to be included in database implementation	Lists most entities that would need to be included in database implementation	Lists some entities that would need to be included in database implementation; but omits some obvious ones	Lists just a few possible entities – omitting several obvious ones
3	Potential uses listed as queries for each type of user. Queries are reasonably complex and realistic.	Potential uses listed as queries but without regard to type of user. Queries are reasonably complex and realistic.	Potential uses listed as simplistic queries based on single entities.	Potential uses listed as queries that don't relate to entities in database.

Design

Measure	Excellent	Good	Poor	Unsatisfactory
Create an entity-relationship diagram for a database	E/R diagram includes all needed entities and relationships. All relationships are of correct functionality. Diagram can be used to show how to answer all queries.	E/R diagram includes most needed entities and relationships. Most relationships have correct functionality. Diagram can be used to show how to answer most queries.	E/R diagram includes some needed entities and relationships. Most relationships have correct functionality. Diagram can be used to show how to answer some queries.	E/R diagram includes a few needed entities and relationships. Some relationships have correct functionality. Diagram cannot be used to show how to answer most queries.

Implementation and Demonstration of a Running Database and Interface.

1. Design and implementation of a database in MySQL in Google Cloud Platform (GCP) to model a real-world problem. All source code and documentation is in the team's private GitHub repository.
   a. Create tables for a database in Cloud SQL using MySQL
   b. Primary keys and foreign keys are defined correctly
   c. Appropriate constraints on the domain of attributes is implemented based on the functional requirements in the problem domain
   d. Sufficient sample data is inserted in order to demonstrate database functionality for the problem solution
   e. All SQL queries to retrieve required information from the database are included.
2. Github repository
   a. Well organized and shows evidence of consistent and correct usage for version control of the project.
   b. Includes documentation on the expected results of queries on the sample data to show correctness.
3. Presentation of Final Project

	Excellent	Good	Poor	Unsatisfactory
1.a.	All necessary tables created	Most necessary tables created	A few tables created	No tables created
1.b	All primary and foreign keys correctly defined	All primary and most foreign keys correctly defined	Most primary and foreign keys correctly defined	Some primary keys defined
1.c	All domain constraints are implemented correctly	Most domain constraints are implemented correctly	Some domain constraints are implemented correctly	No domain constraints are implemented
1.d	Sample data is adequate to clearly and effectively demonstrate how the database solution solves the stated problems for the project	Sample data is present an provides results for all queries	Sample data exists, but it's unclear if the	No queries work
1.e	Database creation with full functionality is complete with clearly defined roles for various levels of users	Database implementation is complete but lacks security/authentication of users with roles	Database has been implemented but few functionalities are available.	Database is not fully implemented, and no functionality is available.

1.f	Documentation includes all SQL queries with appropriate comments.	Documentation includes all SQL queries with limited comments	Documentation includes all SQL queries without comments.	SQL queries not included in system documentation
2.a	Well organized and shows evidence of consistent and correct usage for version control of the project.	Organized and shows evidence of some usage for version control of the project	Lacks organization, but was used consistently for version control	Lacks organization and used inconsistently
2.b	Includes documentation on the expected results of **all** queries on the sample data to show correctness	Includes documentation on the expected results of **some** queries on the sample data to show correctness	Includes documentation on the expected results of **very few** queries on the sample data to show correctness	No documentation of expected results of queries.
3.	Volume, pace, and timing of presentation is good. All team members participate. Presentation highlights key aspects of the project.	Accomplishes goals from excellent most of the time	Accomplishes some of the goals from excellent some of the time	Rarely accomplishes any of the goals from excellent

Notes: