# **Rubric for CMSC 508 Fall 2020**

# **Student Learning Outcome (#6)**

**ABET Criteria Addressed:** SLO(#6) **Apply computer science theory and software development fundamentals to produce computing-based solutions..**

**Performance Indicators**

1. Design a database system with correct definition of tables, primary keys, foreign keys, and any other constraints as appropriate for the problem domain.

1. Implement a web interface that interacts with the database hosted in an online computing service while preserving the security and integrity of the information.

**Rubric:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Performance Indicators | Unsatisfactory | Developing | Meets Expectations | Exceeds Expectations |
| *Design a database system with correct definition of tables, primary keys, foreign keys, and any other constraints as appropriate for the problem domain.* | ERD lacks logic or is incomplete.  Relational model lacks cohesion, logic, or both.  Fails to normalize  Queries not provided or do not work | ERD is logical but lacking some of the important design considerations.  Relationship model complies with some of the requirements laid out in the ERD  Fails to Normalize 3NF, 2NF. Normalized to 1NF or below  Queries written do not work accurately | ERD is logical, complete and includes most of the design considerations.  All primary and foreign keys are correctly defined.  Relational Model is logical and reflects understanding of the overall function of the database  Fails to normalize to 3NF but accurately normalizes to 2NF  All queries work accurately | ERD is logical, comprehensive, and well designed. All primary, foreign keys, and other constraints are correctly defined.  Relational Model is logical and reflects a strong understanding of the overall function of the database  Accurately normalized to the specifications.  All SQL queries working with evidence that they’ve been thoroughly tested. |
| *Implement a web interface that interacts with the database hosted in an online computing service while preserving the security and integrity of the information.* | Web interface is not implemented.  Authentication is missing.  Database is not protected against SQL injections. | Web interface is implemented but some functionality is missing.  Interface is missing adequate authentication.  Provides an inadequate solution for SQL injections. | Web interface implementation is complete.  Provides adequate authentication.  Generally prevents SQL injections. | Web interface implementation is comprehensive and well designed.  Provides a well designed solution for authentication.  Presents clear and precise solutions for SQL injections. |

**Results:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Performance**  **Measures** | **Unsatisfactory**  **(#/%)** | **Developing**  **(#/%)** | **Meets Expectations**  **(#/%)** | **Exceeds Expectations**  **(#/%)** |
| **PI 1** | **0** | **0** | **0** | **0** |
| **PI 2** | **0** | **0** | **0** | **0** |

**Criteria for Performance Indicator Success**

* At least 80% or above of the students will Meet Expectations or Exceed Expectations.
* No more than 10% of the students will be rated as Unsatisfactory.

**Assessment details:**

**Evaluator:**

**Date:**

**Evaluator comments and recommendations:**