**Zhenjun Huang and Xin Huang** - Comp 520 Term Project

(Part 3: Implementation)

Part III. Implementation (50%)

Objective: Exported DDL and DML; Query summaries

Milestone: For Part IV, you will submit your entire database to the Dropbox and include:

1) DDL (20pts) – represents the entire DB schema, including table structures, primary and foreign key constraints, datatypes, data constraints, table indexes and relationships. Your DB should consist of at least 12 entities of suitable complexity (3-10 attributes).

2) DML (20pts) – Represents views (5), queries as stored procedures with varying levels of difficulty (12) and triggers (3) to facilitate information retrieval across your system. Think about the DML in terms of business needs and data administration. In essence, queries are algorithms for information retrieval and should therefore be of a certain complexity to justify their existence. Therefore, a large percentage of your grade will consider such complexity and will be based on your understanding of table joins and query manipulation. Consequently, you are expected to create at least 20 database objects (views, stored procedures and triggers) of varying levels of complexity and provide a rationale for each query.

3) System (10pts) – Your database system should be integrated into a working system, which allows users to insert, modify and/or delete data and information from the database.

**DDL (14 Entities)**

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**DML - 5 Views**

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**DML - 12 Stored Procedures**

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**DML - 3 Triggers**

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**System**

We created a web app that integrates the travel agency database, which facilitates booking trips, flights, and hotels for customers. Each customer can:

- Browse all available trips with ratings and reviews at a glance.

- Discover affordable trips by browsing and comparing budget-friendly hotels and accommodations.

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- Get comprehensive cost estimates that roll up flights, hotels and optional insurance into one all-inclusive price.

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- Manage their booking(cancel or complete) and rate their trip afterward.

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