

- Be typed, double spaced, using Times New Roman font (size 12), with one-inch margins on all sides; citations and references must follow APA or school-specific format. Check with your professor for any additional instructions.
- Include a cover page containing the title of the assignment, the student's name, the professor's name, the course title, and the date. The cover page and the reference page are not included in the required assignment page length.
- Include charts or diagrams created in Excel, Visio, MS Project, or one of their equivalents such as Open Project, Dia, and OpenOffice. The completed diagrams / charts must be imported into the Word document before the paper is submitted.

The specific course learning outcomes associated with this assignment are:

- Explain the fundamentals of how data is physically stored and accessed.
- Compose conceptual data modeling techniques that capture information requirements.
- Design a relational database so that it is at least in 3NF.
- Prepare database design documents using the data definition, data manipulation, and data control language components of the SQL language.
- Use technology and information resources to research issues in the strategic implications and management of database systems.
- Write clearly and concisely about topics related to the strategic planning for database systems using proper writing mechanics and technical style conventions.

Click [here](#) to view the grading rubric.

Week 6 Assignment 5

Week 6 Assignment 5 Submission

If you are using the Blackboard Mobile Learn iOS App, please click "View in Browser"
Click the link above to submit your assignment.

Students, please view the "Submit a Clickable Rubric Assignment" in the Student Center.
Instructors, training on how to grade is within the Instructor Center.

Assignment 5: Tour Operator Agency Database

Due Week 6 and worth 90 points

The Strayer Oracle Server may be used to test and compile the SQL Queries developed for this assignment. Your instructor will provide you with login credentials to a Strayer University maintained Oracle server.

A multinational tour operator agency has gained new business growth in the North American market through the use of social media. Its operation has expanded by 50% within six months and the agency requires an enhanced data management strategy to sustain their business operations. Their existing data repository for its reservation processing system is limited in business intelligence and reporting functionalities. The tour operator seeks a database management specialist to assist them in leveraging their data sources to enable them to forecast and project tour sales appropriately.

Imagine that you have been hired to fulfill their need of enhancing the data repository for their current reservation processing system. Upon reviewing the system, you find that the data structure holds redundant data and that this structure lacks normalization. The database has the following characteristics:

- A table that stores all the salespersons. The table holds their employee id, first name, last name and "Tours sold" field. The "Tours sold" field is updated manually.
- A table that stores tour customer data and tours sold. The table holds customer name, address, city, state, zip code, tour(s) selected, number of persons in tour, and total amount paid. The current structure will show the customer more than once, if the customer books multiple tours.
- A tour table that is used as a tour rate sheet which holds the tours offered and the cost per person. Tour rates vary every three (3) months depending on the tourist season.

Write a three to four (3-4) page paper in which you propose an enhanced database management strategy. Your proposal should include the following:

1. Design a data model that will conform to the following criteria:
 1. Propose an efficient data structure that may hold the tour operator's data using a normalization process. Describe each step of the process that will enable you to have a 2nd Normal Form data structure.
 2. Create naming conventions for each entity and attributes.
 3. Conclude your data model design with an Entity Relationship Model (ERM) that will visually represent the relationships between the tables. You may make use of graphical tools in Microsoft Word or Visio, or an open source alternative such as Dia. **Note:** The graphically depicted solution is not included in the required page length.
2. Construct a query that can be used on a report for determining how many days the customer's invoice will require payment if total amount due is within 45 days. Provide a copy of your working code as part of the paper.
3. Using the salesperson table described in the summary above, complete the following:
 1. Construct a trigger that will increase the field that holds the total number of tours sold per salesperson by an increment of one (1).
 2. Create a query that can produce results that show the quantity of customers each salesperson has sold tours to.
4. Support the reasoning behind using stored procedures within the database as an optimization process for the database transactions.

Your assignment must follow these formatting requirements: