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**INFO 3300 – DATA WAREHOUSING**

**ASSESSMENTS, ASSIGNMENTS AND GRADING**

**Fall 2017**

**ASSESSMENTS AND ASSIGNMENTS**

1. **EXAM -** There is one exam in this course. The exam will consist of one problem set that will cover the material presented in class as well as material in the reading assignments. The exam is open book/open notes.
2. **PEER LEARNING GROUPS** (e.g. Agile Development) **-** Students will work in small groups (3-4 students) to discuss chapter concepts then apply the **Learning By Doing** exercises in the text to three case studies, Coffee Merchant, Redwood Realty and Broadcloth Clothing. For peer learning to be effective, students must ensure that the entire group experiences ‘positive interdependence’, face-to-face interaction, group processing, and individual and group accountability. ‘Positive interdependence’ emphasizes the importance and uniqueness of each group member’s efforts while important cognitive activities and interpersonal dynamics are quietly at work. Peer learning may encourage the presence of ‘freeloaders’—team members who fail to fulfill their team responsibilities, but are awarded for assignments the same (high) grade as their more responsible teammates. Freeloading will be minimized by using peer ratings to assess individual performance of team members, or conducting a ‘post-test’. There will then be two levels of accountability: the individual and the group.
3. **COURSE PROJECT -** A course project is assigned to support the application of the learning outcomes**.** The project is intended to provide the student with more of a direct experience (beyond the PEER LEARNING GROUPS) of planning, designing and building aspects of an enterprise database warehouse using SQL Server, Visual Studio and Power BI. Students can use their project from INFO 3240 (if appropriate) or create a new OLTP. **What is critical to the success of the project is the amount of data loaded into the fact table (i.e. ~1000+ rows needed).**

# PROJECT FORMAT: Students will complete the course project individually.

* **PROJECT OBJECTIVES:** The course project must contain/perform the following:
* Definition of data warehouse problem and objectives
* Demonstration of a dimensional model of the data warehouse
* Demonstration of SSIS, SSAS, Power BI
* Summary of findings
* **PROJECT DELIVERABLES:** There are five deliverables (e.g. Phases) staggered throughout the term. **Each deliverable must go through a peer review before submission**. Include the peer reviewer’s name as a comment on Canvas upon submission.
* **PHASE I: Plan, Design, and Model the DW**
  1. **SUBMISSION:** Zip file with…
     + **Visual Studio Solution** (e.g. CoffeeMerchantSolution) to include:
       - Folder named **Solution Documentation** to include:
       1. **Word Document:** An **executive summary** providing an overview to the project along with **business requirements** (write in bullet point form). The purpose is to articulate an overall understanding of the project along with objectives for creating a data warehouse. Include an **information package** in the Word document that supports the business requirements.
       2. **Excel Workbook:** Identify what data is needed and the data source(s). Outline the tables and fields (using a similar method/design described in Figure 3-23).
       3. **Visio File:** Create a Star schema (or Snowflake if warranted) from the information package. All projects must have, at a minimum, **one fact table** and **four dimensions**.
* **PHASE II: Build the DW**
  1. **SUBMISSION:** Zip file with…
     + **Visual Studio Solution** to include:
       - Phase I (modified if needed)
       - Folder named **DW Build** to include:
     1. **SQL:** Create one .sql script that will build the data mart (e.g. BuildCoffeeMerchantDW.sql). Create a separate folder in your physical project solution for this file, name it **DW Build**.
* **PHASE III: Load the Data Warehouse with ETL**
  1. **SUBMISSION:** Zip file with…
     + **.bak of OLTP**. Create a folder in the root directory of your solution labeled **OLTP**
     + **Visual Studio Solution** to include:
       - Phase I (modified if needed)
       - Phase II(modified if needed)
       - **SSIS Project** to include:

1. One ETL package with several Sequence Containers; one that will build the data mart (this should use the .sql script from Phase II), one Sequence Container to load the Dimension tables and one Sequence Container to load the Fact table.

* **PHASE IV: Perform Online Analytical Processing**
  1. **SUBMISSION:** Zip file with…
     + **Visual Studio Solution** to include:
       - Phase I (modified if needed)
       - Phase II (modified if needed)
       - Phase III (modified if needed)
       - Folder named **Analysis** to include:

1. Excel file with **two meaningful** PivotTables (with PivotCharts) using PowerPivot. Document the question each PivotTable is trying to answer (this should “map back” to the DW Documentation from Phase I). Provide an analysis for answering the question based on the PivotTable/PivotChart results.

* **PHASE V: Develop Reports and Dashboards**
  1. **SUBMISSION:** Zip file with…
     + **Visual Studio Solution** to include:
       - Phase I (modified if needed)
       - Phase II (modified if needed)
       - Phase III (modified if needed)
       - Phase IV (modified if needed)
       - Folder named **Power BI** to include:

1. Power BI file with **two meaningful** “reports” (e.g. dashboards) with graphical content.

Document the question the “reports” are trying to answer (this should “map back” to the DW Documentation from Phase I). Provide an analysis for answering the question based on the results. You can use the same questions from Phase IV; however, the analysis and visual content cannot be the same.

## QUIZZES - Occasionally, quizzes will be given to test knowledge and preparation for class (e.g. readings).

## CLASS ENGAGEMENT - Class attendance is very important; even more so is your active involvement in the learning process to the extent that your engagement accounts for 100 points of your overall grade. Throughout the quarter, class engagement will be evaluated on several dimensions (attendance is mandatory):

* **Contribution to the class** (actively engaged in the learning process, discussions, etc.)
* **Preparation** for class (readings, labs, etc.)
* **Peer interaction** (supports, engages, and listens to peers)

**ASSIGNMENT SUBMISSION POLICIES**

All assignments for this class must comply with the following standards:

1. All assignments shall be **submitted before the start of class** on Canvas in the Assignment section unless otherwise noted.
2. All assignments must have **proper notation for submission**, including student name, date, and assignment name.
3. **Do not email assignments**, unless prior arrangements have been made.

**GRADING**

When students and their work are to be evaluated, they will be held to the same level of accountability and professional standards expected by managers in industry. Success in this course will be related to the student’s ability to demonstrate achievement of each of the learning outcomes listed in the syllabus. Grades are based not only on demonstrated effort but also on demonstrated ability, mastery of the material, and quality of all work produced.

It is the policy of this course that **late submissions will not be accepted** for credit without a University-accepted excuse(occasionally “re-do’s” are allowed, however, extra credit is not accepted).In addition, all assignments must be prepared and submitted in a professional manner. Please make sure that proper grammar, formatting, punctuation and the like represent a **high quality deliverable**.

Points accumulation based on the following deliverables:

|  |  |  |  |
| --- | --- | --- | --- |
| **Grading Component\*** | **Effort** | **Deliverable/Format** | **Points** |
| 1. Exam | Individual | Written/Digital | 100 |
| 1. Peer Learning Groups | Individual/Group | Written/Digital | 100 |
| 1. Course Project | Individual | Digital (5 Phases) | 100 (each) |
| 1. Quizzes | Individual | Written/Digital | 100 |
| 1. Class Engagement | Individual |  | 100 |
| **TOTAL** |  |  | 900 |

\* **Rubrics** used to analyze grading components are posted on Canvas in the Assessment/Assignment/Grading container.