

# Midterm Data Modeling CSCI381

Learning how to work as a team and the concept that the team is more important than any individual. Exposure to working in a delegation model.

This assignment will leverage your understanding of Data Modeling and the design of the eMovies Streaming application

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## Non-technical Project Objective

	A	B	C	D	E	F	G	H
1	To-do list							
2								
3	To be completed by:					Name		
4	Deadline:					Date		
5								
6	Project 1							
7	% done	Phase	Start By	Original Due By	Revised Due By	Number Of Days	Revision Notes	
8	100%	Planning						
9	75%	Preparation						
10	50%	Task a						
11	25%	Task b						
12	0%	Task c						
13	0%	Task d						
14	0%	Paperwork						
15	0%	Hand-off						
16	0%	Follow-up						

1. It is important to learn how work as a team (collaborating).
2. Support each other to meet the mutually agreed upon deliverables.
3. Learn how to work in virtual meetings using Microsoft Team, Zoom, GoToMeeting, etc.
4. Industry is looking for team players. Individuals that are reliable and meet their deadlines.

- ✓ Meeting notes and planning discussed at each meeting
- ✓ Make sure to document your meeting and agendas.<sup>1</sup>

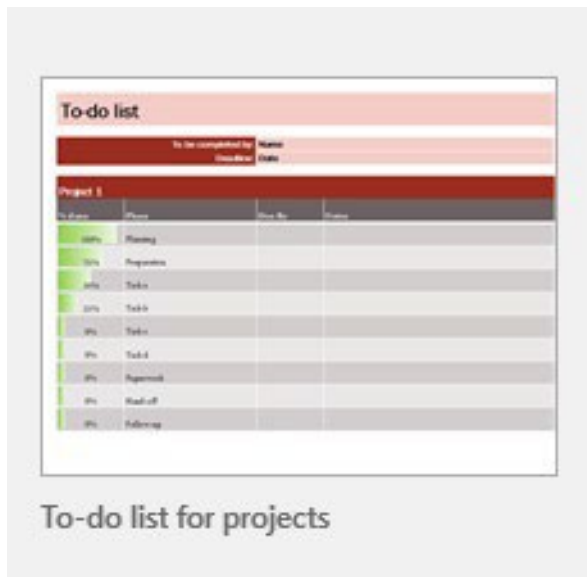
### Creating a Project plan with an Executive Overview

Feel your way around and understand the benefits of doing a project plan.

### Project Tracking techniques documentation using Excel and Word

1. Provide meeting notes (word document) with an agenda and attendance
2. Develop a to-do list for the team members using the To-do list. Each project in the worksheet will be the name of the group member and their responsibilities for the project and

due dates.



3. Track the deliverables by original due date and revise due by with notes explaining the delay.
4. Use Gantt Project planner to track the summarized progress of the project. It will be managed by the project manager and shared with the group team<sup>2</sup>. The activity will be the individual tasks for each group member. Devise your own convention to include tracking delays.



Use the CSCI381 Project Plan Specification.docx for creating your group's project plan

The project plan will tie to your To-do list

<sup>2</sup> See attached "Group Number – Gantt project 1 planner.xlsx"

## Save all of your work in GitHub

Show the git status short commits as part of the video.

## Technical Project Objective

### Additional Columns and a new Table

Create a new table DbSecurity.UserAuthorization in this project to add the following columns and apply the new UDT if it is needed to be created:

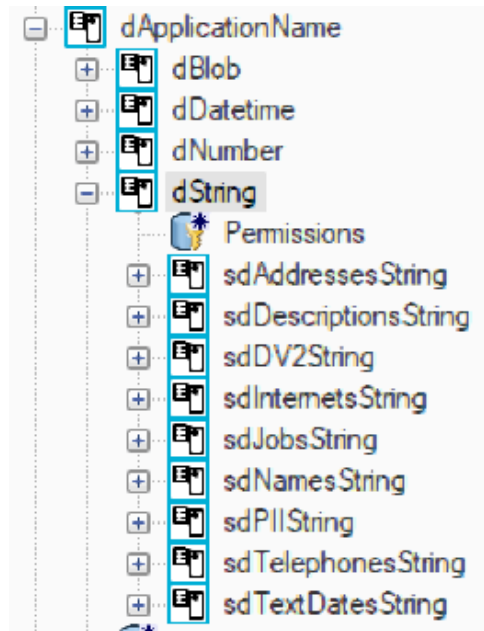
1. new table DbSecurity.UserAuthorization
  - a. UserAuthorizationId INT NOT NULL, -- primary key
  - b. ClassTime nchar (5) Null Default ('9:15')
  - c. Individual project nvarchar (60) null default ('CSCI381 Midterm Project')
  - d. GroupMemberLastName nvarchar (35) NOT NULL,
  - e. GroupMemberFirstName nvarchar (25) NOT NULL,
  - f. GroupName nvarchar (20) NOT NULL
  - g. DateAdded datetime2 null default sysdatetime ()
  - h. DateOfLastUpdate datetime2 null default sysdatetime ()
2. Alter all of the tables in this project and add the following columns to each of the tables:
  - a. UserAuthorizationId INT NOT NULL
  - b. DateAdded datetime2 null default sysdatetime ()
  - c. DateOfLastUpdate datetime2 null default sysdatetime ()

### Pushing the limits of Domain based modeling

1. Create detailed sections describing your domain sub topics below:
  - a. Create a 1 to 1 or 1 to many for one or more application columns in the database.
  - b. Explain your UDT:
    - i. Naming convention is self-documenting.
    - ii. How many times is it being reused?
    - iii. Why you choose this datatype
  - c. Refine the existing fully qualified UDT (user defined datatypes)

into an application name which is equivalent to the Default root domain using a camelCase convention.

- i. dApplicationName for top level domains (see Example below) and SchemaName. Sub-domaining your taxonomies with sdSubDomain.UDTObject name topic:



- d. Create constraints in each of the tables for a provide high data integrity.
- e. Default values
- f. Required or optional
- g. Unique columns
- h. Business rule template validations that are reusable (refer to the assignment on domains chapter 15) and over validate on the column and table level

Create audit table triggers or Temporal versioning<sup>1</sup> and load the data in the SQL Server Version

- i. Extra credit to create the triggers in PostgreSQL<sup>2</sup> and MySQL
- j. Extra credit to load the data into PostgreSQL and MySQL

<sup>1</sup> It appears that MySQL and PostgreSQL does not support System Versioned Tables like Microsoft.

<sup>2</sup> <https://wiki.postgresql.org/images/6/64/Fosdem20150130PostgresqlTemporal.pdf>

Create a PowerPoint story board that guides the viewer with a high-level view transitioning

Integrate your PowerPoint with transitions directly to your Erwin DM model.

1. Starting at the CDM (Conceptual Data Model) explaining the flow and the purpose of design. Show who was responsible for various pieces of the teams work from the To-do list at each level.
2. LDM (Logical Data Model) explaining the business rules of the team's design. Show who was responsible for various pieces of the teams work from the To-do list at each level.
3. PDM (Physical Data Model) explaining the fully qualified table names, defaults, check constraints, indexes, primary keys and foreign keys. Show who was responsible for various pieces of the teams work from the To-do list at each level.
4. Create one PowerPoint with voice annotation describing the work and design decisions.

Create PowerPoint Presentation which is voice annotated

The presentation should:

1. Identify the work of each of the individual members.
2. PowerPoint document should be named CSCI381 Erwin DM- Group Number – Group Project 1pptx
  - a. Demonstrate the effectiveness of meetings with an agenda and attendance
  - b. Show the to-do list
  - c. Show the project plan
  - d. Summarize the team effort in the manner as you did by

individual.

3. Each team member will review the team member's models and make constructive suggestions to fix their model
4. Review the team's review and document the final product that represents the team's collaboration
5. If any of the members in the group that do not participate, please notify me during the project period and document it in the meeting notes. **Complete the project without them.**
6. Please keep the CSCI381 Erwin DM- Group Number – Group Project 1.mp4 from a range of 20 to 30 minutes (note: Each team member at a minimum need must speak for 4 to 5 minutes explaining their work)

The submission should include the following:

1. **Create a VHDX<sup>3</sup> file as a submission format with a directory structure.**
2. Create a folder hierarchy for all of the members work (group And Individual) and the group's collaborative of all of the documents.
3. Submit all of the project tracking techniques documentation
4. PowerPoint document should be named CSCI381 - Group Number – Project Name.pptx with a voice annotated MP4
  - a. Demonstrate the effectiveness of meetings with an agenda and attendance
  - b. Show the to-do list
5. Show the project plan
  - a. CDM
  - b. LDM & Business Objects
  - c. PDM
6. Use Redgate SQL.doc to create a pdf of your forward engineered (.FET) design into SQL server database

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<sup>3</sup> **Zip files or RAR files are not acceptable.**



7. PowerPoint describing your Domain modeling strategy
8. Show the documentation and a walk through of the group's effort in design, documentation and integration your PowerPoint with transitions directly to your Erwin DM model.
  - a. Starting at the CDM (Conceptual Data Model) explaining the flow and the purpose of design. Show who was responsible for various pieces of the teams work from the To-do list at each level.
  - b. LDM (Logical Data Model) explaining the business rules of the team's design. Show who was responsible for various pieces of the teams work from the To-do list at each level.
  - c. PDM (Physical Data Model) explaining the fully qualified table names, defaults, check constraints, indexes, primary keys and foreign keys. Show who was responsible for various pieces of the teams work from the To-do list at each level.
  - d. Conclude with the benefits that you have learned through collaboration and team building.
7. Create a voice annotated PowerPoint document should be named CSCI381 Erwin DM- Group Number – Group Midterm.mp4 with a minimum length of 25 to 35 minutes.