CSCI 6441 – Homework 1

LAST NAME: FIRST NAME:

Resources to be read and analyzed before you work in this homework assignment.

a. Lecture Notes 01 to 03
b. Special attention must be given to the "Oracle Datamodeling" Notes Lessons 1 to 10. For your convenience the first 10 lessons of the Oracle data Modeler notes are posted with the Homework Assignment.
c. Oracle Data Modeling Practices Lessons 1 to 10 problem statement and solutions. Also attached to this Homework Assignment.

Procedure to work in this assignment:

1. Install the Oracle Datamodeler software in your workstation. The instructions are in **Appendix A**.
2. Review the Oracle Datamodeler concepts we discussed in class and summarized in the attached document "**DB_Modeling_and_RDB_Design_Lessons_1_to_10.pdf**".
3. Read and document "**DB_Modeling_L1_to_L10_ACTIVITY_GUIDE.pdf**".

The practices for lessons 1 to 5 deal with the **dataflow diagram** for the scenario "Starling DVD and Games Rentals" and the practices for Lessons 6 to 10 are to build the **ER diagram** for the database.

Your Task: Use the Oracle Datamodeler software installed in your workstation to implement the practice exercises provided to you in "DB_Modeling_L1_to_L10_ACTIVITY_GUIDE.pdf".

Objective: Become an expert in the utilization of the Oracle Datamodeler's software to build Data Flow Diagrams and expressing the Database Conceptual Design using EER Diagrams.

Deliverables:

The solution must be provided in a single MS Word document.

In all the practices you must write down the Practice description and follow it with your solution.

All the DFDs and ERs must be built using the Oracle Data Modeler and the resulting diagrams must be copied to the MS document (Screen pictures).

Please do not submit separated documents.

Important: Please include a LEGEND in each diagram. The legend must contain your full name

Practices:

Practice 1-1: Summarize in your own words the solution that is provided and evaluate the existing rental tracking database to determine whether it would be better to start with a new model or re-engineer the database that already exists.

Practice 2-1: Build the table given and indicate if you agree with then solution and why. You may also have your own solution.

Practice 3-1: Write a detailed explanation of the suggested solution. Insert into resulting diagrams into your MS Word document.

Practice 4.1: Follow the steps in Solution 4.1 to build the DFD

Practice 5.1: Summarize the concept of decomposition presented in Lesson 10. Follow the steps in Solution 5.1 to decompose the DFD.

Practice 6-1: Write a detailed explanation of the suggested solution. Insert into resulting diagrams into your MS Word document.

Practice 6.2: Write a detailed explanation of the suggested solution. Insert into resulting diagrams into your MS Word document.

Practice 7.1: Write a detailed explanation of the suggested solution. Insert into resulting diagrams into your MS Word document.

Practice 7.2: Write a detailed explanation of the suggested solution. Insert into resulting diagrams into your MS Word document.

Practice 8.1: Write a detailed explanation of the suggested solution. Insert into resulting diagrams into your MS Word document.

Practice 8.2: Write a detailed explanation of the suggested solution. Insert into resulting diagrams into your MS Word document.

Practice 9.1: Follow the steps in Solution 9.1 to build an Entity-Relationship Diagram (ERD)

Practice 10.1: Follow the steps in Solution 10.1 to complete the required ERD

Appendix A

Installing the Oracle Datamodeler.

Go to: [SQL Developer Datamodeler](http://www.oracle.com/technetwork/developer-tools/datamodeler/downloads/index.html)

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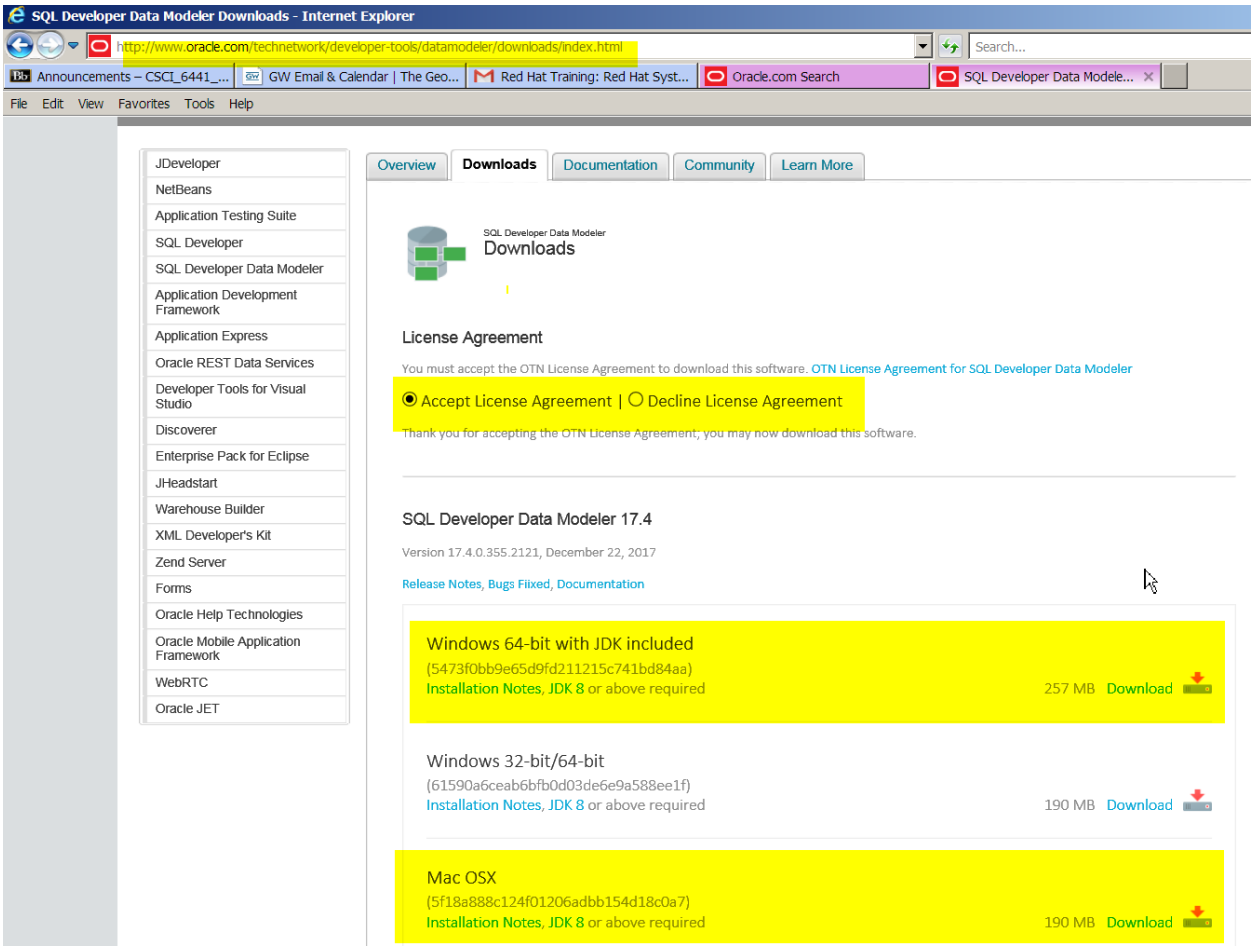
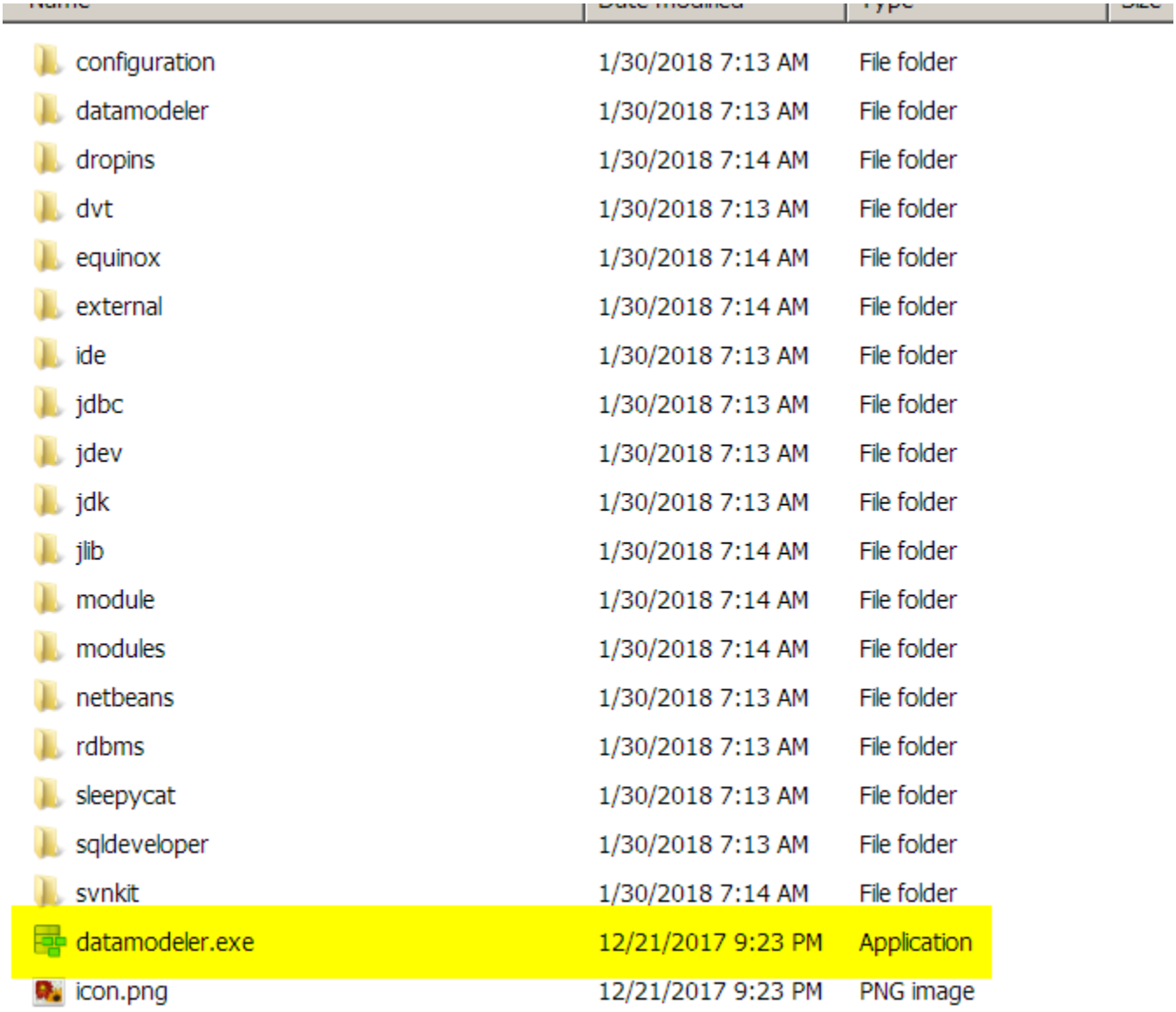


You will be prompted for your userid and password. If you do not have an Oracle userid, please create one. It is free.



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datamodeler	1/30/2018 7:13 AM	File folder	
dropins	1/30/2018 7:14 AM	File folder	
dvt	1/30/2018 7:13 AM	File folder	
equinox	1/30/2018 7:14 AM	File folder	
external	1/30/2018 7:14 AM	File folder	
ide	1/30/2018 7:13 AM	File folder	
jdbc	1/30/2018 7:13 AM	File folder	
jdev	1/30/2018 7:13 AM	File folder	
jdk	1/30/2018 7:13 AM	File folder	
jlib	1/30/2018 7:14 AM	File folder	
module	1/30/2018 7:14 AM	File folder	
modules	1/30/2018 7:14 AM	File folder	
netbeans	1/30/2018 7:13 AM	File folder	
rdbms	1/30/2018 7:13 AM	File folder	
sleepycat	1/30/2018 7:13 AM	File folder	
sqldeveloper	1/30/2018 7:13 AM	File folder	
svnkit	1/30/2018 7:14 AM	File folder	
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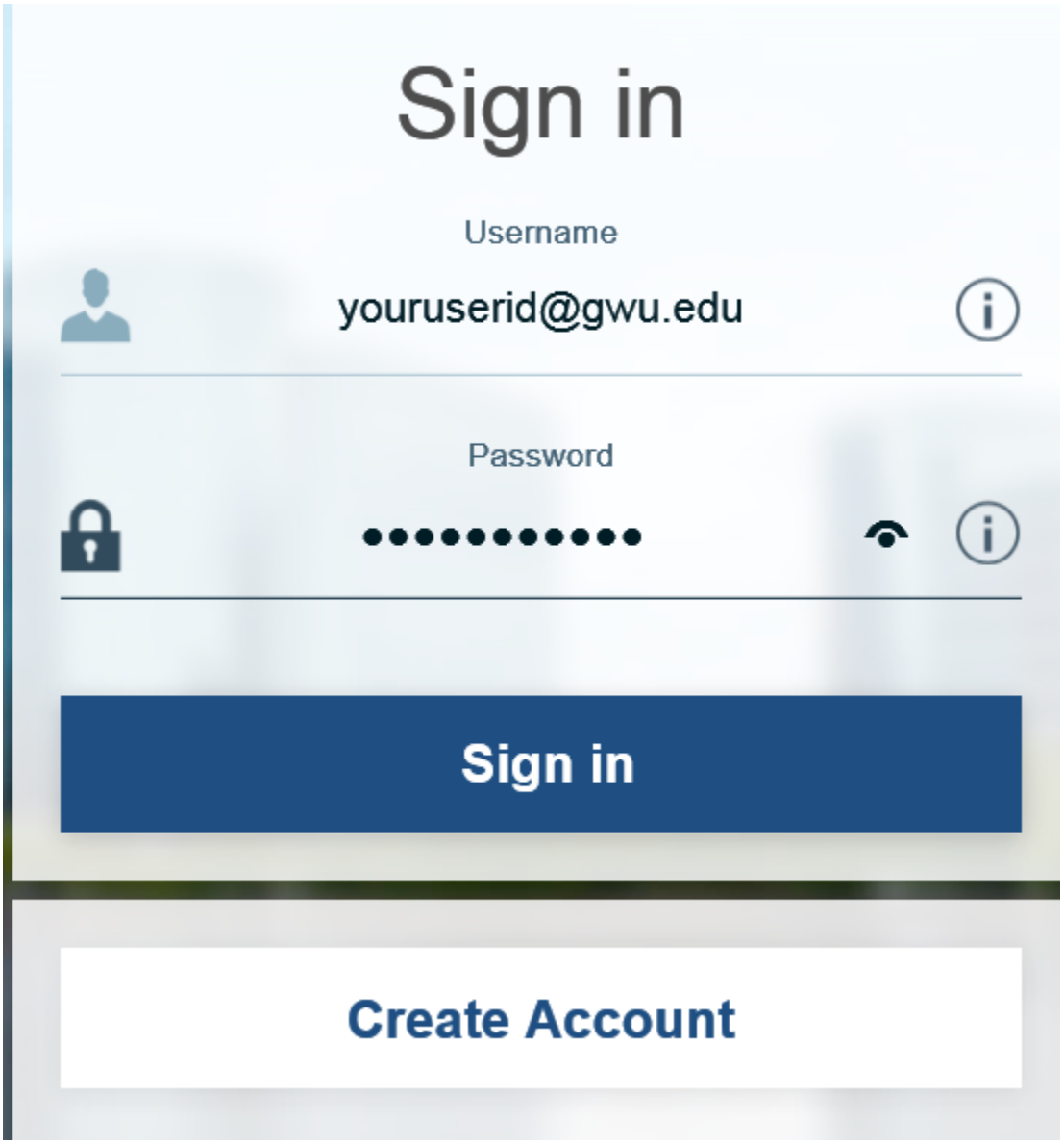
icon.png	12/21/2017 9:23 PM	PNG image	



In Windows: A Zipped file will be downloaded

Unzip the file and the “datamodeler” directory will be created.

Double click on the “datamodeler.exe” to execute.