Unit 12 Problem Set Submission Form

# Overview

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| --- | --- |
| Your Name | Rayanna Harduarsingh |
| Your SU Email | rharduar@syr.edu |

# Instructions

Put your name and SU email at the top. Answer these questions all from the lab. When asked to include screenshots, please follow the screen shot guidelines from the first lab.

Remember as you complete the problem sets it is not only about getting it right / correct. We will discuss the answers in class so it’s important to articulate anything you would like to contribute to the discussion in your answer:

* If you feel the question is vague, include any assumptions you've made.
* If you feel the answer requires interpretation or justification provide it.
* If you do not know the answer to the question, articulate what you tried and how you are stuck.

This how you receive credit for answering questions which might not be correct.

# Questions

Answer these questions using the problem set submission template. You will need to consult the logical model in the overview section for details. For any screenshots provided, please follow the guidelines for submitting a screenshot.

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1. Graphical user interface, text

   Description automatically generatedGraphical user interface, text, application

   Description automatically generatedProvide a screenshot of your working migrations for steps 1.4, 1.4 3.1 and 3.2 in the walkthrough.
2. Graphical user interface, text, application

   Description automatically generatedText

   Description automatically generatedA picture containing text

   Description automatically generatedProvide a screenshot of your adding foreign keys in step 4 and a separate screenshot of your code to drop the foreign keys.

Graphical user interface, text, application

Description automatically generatedNormalize the **xyz\_consulting** database. You can get this script in the same place you got this lab.

1. Provide a screenshot of your migration scripts (if any) to 1NF

Skipped because there were no columns that were not key dependent. There also was not any columns that were multi-valued or any repeating columns.

1. Graphical user interface, text, application

   Description automatically generatedTable

   Description automatically generatedProvide a screenshot of your migration scripts (if any) to 2NF

Graphical user interface, text, application

Description automatically generated

1. Graphical user interface, text, application, email

   Description automatically generatedTable

   Description automatically generatedProvide a screenshot of your migration scripts (if any) to 3NF
2. Provide a list of tables in 3NF

- Billing table

- Rates table with the rate category and rate amount

1. Graphical user interface, text

   Description automatically generatedAdd all foreign keys back to the new model.A picture containing text

   Description automatically generated

# Reflection

Use this section to reflect on your learning. To achieve the highest grade on the assignment you must be as descriptive and personal as possible with your reflection.

1. What are the key things you learned through the process of completing this assignment?  
   I learned how data normalization can improve the design of a relational database. There can be certain anomalies that can occur when a database isn’t normalized such as a update anomaly, insert anomaly, and a delete anomaly. These can cause data to be inconsistent. Normalization help make your data clean by reducing redundancy and maintaining data integrity. It helps organize data and keep it consistent not in just one place, but across all fields.
2. What were the challenges or roadblocks (if any) you encountered on the way to completing it?  
   Based on the checkpoints from the asynchronous session, I did not perform as well in understanding data dependencies and then when it is tied into normal forms (0NF, 1NF, 2NF, 3NF) as you need to understand data dependencies first when understanding normal forms. It was a little difficult knowing which column might act as a key, be a key, be part of key, etc. and understanding their dependency on another column and it’s important to first analyze your data in this perspective before you can move on to writing your migration script in each form.
3. Were you prepared for this assignment? What can you do to be better prepared?  
   I was prepared by watching the asynchronous session, however, to be better prepared, whenever writing my migration script, I think it’s best if I start to label my code such as what table I am creating, in what form is it in, etc. I found myself getting confused and lost as I was writing when I came down to adding the foreign keys, and finally tying the whole script together. I had to spend extra time going back to my code and trying to pin point exactly what I did. I also researched some more explanations to further my development in understanding normalization and the explanations of 1NF, 2NF, and 3NF.
4. Now that you have completed the assignment rate your comfort level with this week’s material. This should be an honest assessment: (choose one)  
     
   4 ==> I understand this material and can explain it to others.  
   **3 ==> I understand this material.**  
   2 ==> I somewhat understand the material but sometimes need guidance from others.  
   1 ==> I understand very little of this material and need extra help.