**Murthy/Fall24**

**Homework 1**

Implementation of “University Database”   
in **Sql\*Plus** environment.

Due Date: Fri Sep 20, 2024 – Credit: 15points

Late Submission Penalty: 10% per day for 5 days – No credit afterwards

**Purpose:** Use SQL commands in **SqlPlus** environment (in Orcl4) to create tables and add contents to develop a University Database for the Schema presented in Figure 1.2 of the textbook. Test out a few retrieval commands after the implementation is successful.

Review the Schema and the database state as presented in the handouts in class (See PowerPoint Slides 2-11 & 2-12 from Ch2). You may also find the University database on page 8 of the textbook.

Please note: In the slide 2-12, Student table is missing. Here are the contents for that table.

**STUDENT**

***Name Student\_number Class Major***

**Smith 17 1 CS**

**Brown 8 2 CS**

**Here are the details and what to submit:**

Create a folder in U drive in **your sql folder** and label it as **HomeWork1.**

When you develop a script file, name it as **HW1.sql** and save in the **HomeWork1** folder.

Name your log file as **HW1log.txt,** to be placed in the **HomeWork1** folder.

When you run the script file, check the log file to make sure that all commands work correctly, and without any error. In case of an error, fix the error by editing the script file and re-running the file. After successful run, copy the entire HomwWork1 folder (containing HW1.sql, and HW1log.txt), and paste it in your folder on K drive for submission.

See the details of commands that you need to include in the script file in the following page

Here is what your Script file MUST contain: (Replace XXX with appropriate values)

**-- Example shown in next three lines -- Replace them with your info**

**--=============================================**

**-- Name: Your Full Name Class: XXX**

**-- HW Number XXX Due Date: XXXX**

**-- ============================================**

**set echo on;**

--Make sure you saved the script file in HomeWork1 file on U drive

--so you can run the following sql command to execute it

--Here XXXYYY = CPS541 refers to your course number

**start U: \F24-XXXYYY\Homework1\HW1.sql;**

--specify the path for the file name to save the log of this session

**spool U:\F24-XXXYYY\HomeWork1\HW1log.txt**

**set linesize 150;**

**set pagesize 120;**

--Type the sql commands required to accomplish the tasks specified

*Try script similar to the suggested sequence below for each of the five tables in the schema.*

--Use **drop table XXXX cascade constraints;** before you create any table XXXX

--First create table Student as specified in the Schema

--

--Then use INSERT command to add the contents as shown in Fig 1.2

**--ADD three or four rows of your choice to the table**

--

--After populating the table with values, test each table

--Use **Describe XXXX;** followed by **SELECT \* FROM XXXX;** to show contents

--

--Now use a few Data retrieval commands which you practiced in sqltutorials

--Try using different filters in WHERE commands and test the values returned

--Use of LIKE, BETWEEN, ORDER BY, Comparison & Logical operators,

--Sum, Avg, Count etc. commands

--Not all commands may be suitable for every table – use them as you see fit

Always check to see whether you have specified the path for the file that contains the script, and also the path of the file to which the output is sent in spool.