

# ACS 560 Software Engineering

## HW 10 (Due on Nov. 13, 11:59pm, 2022 in Bitbucket)

(1) **Database (SQLite).** Use the Todo database from in-class example. Drop the Completed column. Add columns for StartDate and FinishDate (you will need to determine how to best handle what the data should be if the todo has not been started).

- 1) Find a SQL statement to calculate the average number of days to complete a task for all team members. For example, Team Member A completed tasks in 3 days and 4 days, and Team Member B completed a task in 3 days. The average of this would be  $((3 + 4) / 2 + 3) / 2 = 3.25$  days.
- 2) Find a SQL statement to show the list of team members whose average task completion was less than the average task completion of all team members (use above result).

Please submit the updated database, and the SQL statements.

(2) **Database (SQLite).** Please write Java program to connect to SQLite DB, create the following table, insert two records, read records from DB, and print them.

Semester	Course
Fall 2022	Software Engineering
Spring 2023	Software Project Management

Please store the table in the file "courses.db". Please refer to the following link:

[http://www.tutorialspoint.com/sqlite/sqlite\\_java.htm](http://www.tutorialspoint.com/sqlite/sqlite_java.htm). A SQLite JDBC driver can be found at <https://github.com/xerial/sqlite-jdbc/releases>

In your program, please avoid code duplication (DRY). The output of the program:

```
Opened database successfully
Semester = Fall 2022
Course = Software Engineering
Semester = Spring 2023
Course = Software Project Management
Table and records created successfully
```

Please upload the file and all source code (Java code) to Bitbucket and put them under the directory "Homework\_10" in the "Homework\_ACS560" repository.