CS 460W – Software Development
Spring 2025
Project Description

This is a team-oriented semester-long object-oriented software development project with deliverables throughout the semester. The software, written in Java or Python, involves the development of a program that implements a system that manages court reservations and financial accounts and keeps track of member information for a tennis club with 12 tennis courts. The system should have a well-designed Graphical User Interface and provide login access for the membership chair, billing staff (treasurer), and members. This is a high-level general description of the problem. All data should be saved and managed by a database. Details will be developed by the teams and their clients. The final product should be a complete software package that addresses the problem based on the specifications compiled by each team and their clients.

The goal of this project is to produce a useful, user-friendly, and good quality software package, a final product that everyone would want to actually use. The project will utilize object-oriented and software engineering techniques and should be written in Java or Python. The project will be divided into smaller assignments of varying length that address the various phases in the software development life cycle. These are used as milestones in the development of the project and are due at various times throughout the semester. Proper documentation and a user's guide should also accompany your final software package.

These smaller assignments are used as milestones in the development of the project and will consist of various deliverables as listed below. For each deliverable, you will receive specifics of what you need to complete and submit for the deliverable. Each deliverable must include the meeting minutes. For every deliverable, each student must submit the team deliverable and a 1-2 page document summarizing your own contribution to the deliverable. On each deliverable, your grade will be the average of the team grade and the individual grade based on your own contributions.

(1) Requirement specification document, and minutes (10%)
(2) Requirements specification document revisited with use cases, and minutes (15%)
(3) System modeling and prototype (UML diagrams, prototype program, minutes) (15%)
(4) Implementation (Entire source code, minutes) (20%)
(5) Testing document (software testing scenarios, testing results, minutes) (15%)
(6) Software release – Final Product & Report in APA format, class presentation (25%)

Project Rules:

- Come up with a team name and a project name. Be creative!
- Maintain an online repository that would include all material related to the project deliverables such as current versions of all documentation, specifications, design, code, etc.
- Each team member is expected to contribute about equally to each portion (deliverable) of the project. Specifically, each team member is expected to contribute to the specifications document preparation, and to the overall design. In addition, each team

member should be responsible for a specific portion of the detailed design, implementation and coding, and the final product documentation.

- Each team must select a **team leader** for a deliverable during the first meeting. The team leader is responsible for coordinating and supervising the project and upon consultation with team members, assigning or reassigning people to various tasks. This should be a rotating role among the members and rotated among deliverables and not meetings. Some useful tips to the team leader:
    - o Create a clear agenda addressing the essential tasks that must be accomplished in order to complete the necessary deliverables.
    - o Stick to the agenda items during a meeting.
    - o At the end of each meeting make sure to identify action items and deadline. Do not adjourn until every member is clear on what they are expected to do.
    - o Ensure that tasks are equitably distributed.
    - o Select a recorder to record the minutes of meeting for the duration of the deliverable portion of the project and make sure minutes are posted soon after the meeting is over.
- Each team must select a **recorder** to record minutes of all meetings. This should be a rotating role among the members and rotated among deliverables. Teams allocate at least 1 hr per week outside class for meetings. In addition to the weekly meetings, meetings with the client should also be recorded. The minutes should include:

    - o Team name, team members (and their roles)
    - o Link to the team's online site where the project resides
    - o Date, time and location of meeting, beginning time and end time
    - o Team leader name and recorder name
    - o Members present and those not present
    - o A report by each team member on work actually completed by each team member during the prior week leading to the meeting
    - o Detailed summary of discussions
    - o Action items and those assigned to complete them.

    The recorder shall also be responsible for updating the team project online repository with the minutes. Each team must identify at least 1 hour per week outside of class to meet as well as the location of the meeting. Teams must meet at that time every week. The meeting can be virtual as long as all team members agree.
- Team members are expected to attend all team meetings and all meetings with the client.
- Each team member and team is expected to adhere to all deadlines. Failure to do so may impact the progress of the project which in turn will impact your grade on the project and may result in a late penalty.
- Each team member must submit the document due at each stage with names of all team members on it. In addition, each team member must submit 1-2 pages summarizing his/her specific contribution to the deliverable submitted.

- If a student withdraws from the class, the team will work toward the same set of goals with the current members. If a team is left with 2 members, arrangements can be made to adjust the requirements.
- Finally, working in a team can be fun and at the same time challenging. As we work on this project we will discuss issues related to teamwork. Sometimes, it is tempting for a team member to work alone or do most of the work. You should avoid the temptation to do so. You will find out that team members have different work habits, personalities, and opinions. You should respect your team members' points of view, even if you disagree. You will need to work around your differences. If there is a conflict, you should try to resolve it among yourselves. Only if you are not successful should you request my involvement to resolve the conflict.

Note: This project description will be revised throughout the semester as we add the various deliverables.

Teams and their members, weekly meeting time

Team #1	Derim Belica, Nick Brown, Benjamin Kopf
Team #2	Jacob Hart, Kyra Singh, Alex Cooke-Politikos
Team #3	Ryder Raymond, Bas asad, Amir Harvey
Team #4	Manny Kurinaah, Nick Viera, Andrew Fletcher
Team #5	Cody Beard, Evan Riddick, Jacob Tsekhansky, Talal Alsmait
Team #6	Kenneth Frimpong, Brecon Morgan, Mohammed Alenezi