Final Project – Weight 20%

- **Team formation:** Teams of **up to 3 students** must register through D2L **by January 25. No changes in teams after February 28!**

Students who fail to register by February 28 will receive 0 automatically for the whole project.

- Design Document (10%) should contain app description and mock-ups for the application screens. **Due by January 25**
- UI Implementation (App Concept, clickable UI implementation in xCode) – 2.5% **Due by February 8**
- Early prototype – 5% **Due by March 15**
- Final Implementation – 5% **Due by April 5**

ALL CODING SUBMISSIONS WILL BE GRADED BASED ON GIT CONRIBUTIONS OF THE TEAM MEMBERS! MEMBERS WHO DO NOT CONTRIBUTE TO GIT WILL RECEIVE 0.

Topic options:

- An advanced ToDo application with several types of tasks and ability to create new tasks and new kinds of tasks. Application should keep track of tasks status, a current date/time and mark tasks that are past due and close to due date.
- Shopping list app with a tax calculator that keeps track of different groups of products (e.g., Food, medication, cleaning products etc.) and create user own groups
- Word game/puzzle with multiple (at least 3) levels and persistent leaderboard.
- You can propose your own topic like those above or declare that the team works on Capstone project **by January 25**

Basic requirements

Overview: As a Team (up to 3 students), you will create an original iOS application. The application must have the following components to be accepted:

- At least 3 screens/scenes plus a launch screen
- Persistent data storage of your choice (file, core data or SQLite) with read and write functionality implemented or use external API
- Clean design. To simplify your task, you can select a specific device (e.g., iPhone 8) and optimize your screen for this device. You can also fix the orientation for your application to portrait or landscape.

Instructions:

1. The proposal should contain the following information:
    1. Cover page with
        i. Application name
        ii. Names, student ID numbers and CRN numbers of all team members
    2. Application description that answers the following questions:
        i. What is the application functionality? Present a functionality of each screen. Support your description with images showing GUI
        ii. What is the data that you store?
        iii. How do you want to store data? Why this way?
2. GUI mock-ups/wireframes with descriptions

GUI implementation

A prototype of the GUI for your application with mock data/hardcoded info **done in xCode**

1. Application should have a launch screen displaying the app name and names of all team members
2. Your application should be optimized for a selected device. You have to clearly specify the device in your submission
3. Application screens should have clean easy to follow design consistent with Apple guidelines
4. A short video describing your idea (2-5min)

Early Prototype

Implementation of one of the screens described in the proposal document. That includes navigation and logic of the application

1. Each team will be required to show the prototype to the teacher in the lab or submit video. Teams who fail to present will receive 0 even if they submit working project on D2L. All members of the team should be present and participate!
2. It should be done in a short video describing your progress (2-5min)

Final Implementation

1. Implementation of the functionality described in the proposal document. That includes navigation and logic of the application
2. Internal documentation of the code / comments. That includes adding comments to all tricky or complex sections of the code and adding a comment with
3. author name and student ID in each file.
4. It should be followed by name and student Id of each other team member that edited the file with information what has been changed by the editor
5. Data structure implementation
6. Reading data
7. Writing data
8. Include a short video describing your progress (2-5min)

SUBMITTING YOUR WORK

Your submission on D2L should include:

1. For design document a pdf document with the wireframes and description of the project
2. For all other milestones, A link to the git repo with your Project files. Note that team members who do not contribute in git receive 0 for the milestone
3. In both cases a video should be included (link or file)

This assignment is weighted **20%** of your total mark for this course. Late submissions:

10% of the grade is deducted for each day past due date, after 10 days 0 is automatically assigned for the component.

External code (e.g., from the internet, AI or other sources) can be used for student submissions within the following parameters:

1. The source of the code (i.e. where you got the code and who wrote it) must be cited in your internal documentation (comment).
2. It encompasses a maximum of 30% of your code (any more will be considered cheating).
3. You must understand any code you use and include documentation (comments) around the code that explains its function.
4. If you have doubts consult the professor to avoid issues at the end of the term.
5. Proven plagiarism cases, according to the college policy, will result in 0 marks for the entire group and may result in you failing the entire course.