Project Requirements

1. **The project shall consist of:**
    a. Groups of 2 or 3 students. – **In the Summer 2021, it is individual project**
    b. At least 4-6 Views (one or two per team member – you may use storyboard)
    c. At least 2-4 classes (one or two classes per team member) other than view controller classes
    d. You may choose any project you wish, such as a game, utility, or tool. But it must have some purpose. Consider creating an app that you would want to use or you can create a clone app.

2. **Project shall make use of the following technologies/techniques:**
    a. View Controllers (such as Navigation Controllers, Tab Controllers etc.)
    b. Data Structures (Custom classes, Dictionary, Arrays)
    c. The following Swift language features:
        i. Array and or Dictionary
        ii. Table's
        iii. SpriteKit (this is for gaming but part of course outline)
        iv. MapKit (for location and maps)
        v. Core Data for data persistence
        vi. Remote Database using JSON, MySQL & PHP (Optional)
    d. **Commenting:** The code shall be commented according to the following requirements
        i. Each class shall have a header with the principal author of the code and a short description of what the code in the file is for
        ii. Each method and property shall be commented and include a brief description of the purpose of method and property. If the author of a method is different than the author of the class, then author name shall also be included in method headers
        iii. The code (inside methods) shall be commented to explain WHY the code is there (not how, not what) wherever necessary.
    e. **Coding Conventions:**
        i. Naming conventions and guidelines must be consistent as used in classes.

3. **Work assignments:**
    a. **Each Swift class shall have only one author out of the group.** "**We all worked on it together**" is not acceptable as that would never happen in a professional team project. As a team you collaborate but each team member must take ownership and responsibility of a piece of the code. You will be graded individually based on your contribution.

b. **The author shall be clearly documented in each source file.** Again, multiple authors in a single file not acceptable.

c. The work assignments must be consistent with the original project proposal even if minor differences exist AND they must be updated in the project completion document.

4. **Project Updates**
   a. Each team will provide periodic updates on their progress – I will announce in class at any time asking for an update during class. You must demonstrate some progress to receive a mark for your progress report.
   b. These updates are part of the final project grade

5. **Project Presentation**
   a. Present the purpose of the application
   b. Present a high-level overview of forms and classes used in the application
   c. Demo the application functionality. Each student in the group shall demo the functionality he/she worked on
   d. Present briefly the technologies used in the application (follow the list of requirements given in point 2.

6. **Penalties** – these apply to overall project grade.
   a. 30% for not submitting a proposal.
   b. 20% for not having minimum group size / attempting to do project alone.
   c. 50% for not presenting project.

See next page for project deliverables deadlines…..

Project Deliverables Deadlines

The development plan is organized in 5 milestones. The completion of each milestone will be verified and will count in the final grade of the project. **Due time and date is Mid-night Sunday of that week.**

1. **Week 7:** Project Start - Proposal Due at the end of week 7
2. **Week 9**: 25% complete
3. **Week 10**: 50% complete
4. **Week 11**: 75% complete
5. **Week 12:** **Project Presentation and Delivery. Before project presentations the project completion document must be handed in.**