

# CS408: Project Charter

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## 1. Problem Statement

Looking for a nostalgic game to play during the breaks while not taking much time? Minesweeper perhaps would be a good choice. However, we found out that a computer might be just a big block sometimes. Like, on the way back home, none of the users would prefer accessing the game by a bulky laptop or through a website--which are always the first income ideas when we think of Minesweeper. Moreover, visual fatigue caused by the never-changed black&white board is another stumbling block on the way to a further development and popularity for this game. Therefore, an easy and accessible Minesweeper App with a more user-friendly UI would be a valuable project that could bring back good childhood memories and give the users a relaxed and fun experience on the breaks of exhausting study or work.

## 2. Project Objectives

1. Able to provide users with multiple levels with different shapes (e.g. pentagon, hexagon, etc.) in the game.
2. Allow simple user account creation and login system.
3. Able to store all user account-related information on the backend server.
4. Create a points system to record time and score.
5. Develop a ranking table for the users to compete against the others.
6. Implement token system that will allow users to play certain amount of time.
7. Create a game currency for users to customize the board, unlock levels, and purchase the token.

## 3. Stakeholders

- Users: iPhone users who strive for a good, old-fashioned game on the phone
- Developers: Jingzhou Wang, Shirley Fu, Dan Luo, Wenya Zhu, Jay Cha
- Project Owners: Jingzhou Wang, Shirley Fu, Dan Luo, Wenya Zhu, Jay Cha
- Project Manager: Dan Luo
- Project Coordinator: Elvin Uthuppan

## 4. Deliverables

- An iOS application that allows users to play the minesweeper game:
  - Users can create an account. And by signing in to their personal account, they can retrieve the record and their customizations of the game.
  - Users are allowed to customize the game like levels of difficulty, shape of the board, style of the board, style of the flags and mines and so on.

- Platform:
  - IOS using Swift/Xcode
  - Database: Firebase
  - GIT