

# CSC667-867 Spring 2019

## I. Title Page

**Team Number:** 08

**List of Members:** Jianfei Zhao

Alan Ng

Philip Yu

Hang Li

Eric Chen

**Milestone:** 1

**Due Date:** 03/07/2019

**Link:** <https://github.com/csc667-02-sp19/csc667-sp19-Team08/tree/milestones/milestones/m1>

## **II. Statement of Project Declaration**

Our team will be developing the Uno Card Game as the term project.

## **III. Project Proposal**

In this project, our team will commit to an internet application, where users can play the Uno Card Game. We will implement two users for each game, to ensure that we have a workable project before the delivery date. If time is still allowed, we may then try to expand to three or four users.

Basically, the application will be similar to a game room, with a lot of seats available for players. Each user may choose to play against any other one after registration. For each game, both of the users will be given 6 Uno Cards initially, and the one who successfully and firstly plays all his/her cards wins the game (taken as a “Win”). The user who voluntarily relinquishes, or the one beaten by the winner loses the game (taken as a “Lose”). If two gamers runs out of a deck of cards but without satisfying the winning condition, the game will be taken as a “Draw”.

In addition to the normal numerical cards, we will provide some functional ones, including “Wild”, “Wild Draw 4”, “Draw 2”, and “Skip”. The functional “Reverse” will be provided only if we decide to support more than two players in a game.

Before the design and coding begins, we list some features that we plan to support, with detailed explanation for each one of them. Below are the itemized features, and they are subject to change since we may add or remove features according to the time schedule.

### **i). Users / Players**

- The Uno Card Game shall be able to support two players in a game instance.
- Each user shall register or login before playing with others.
- The application shall support concurrent games.
- Each user shall be permitted to take part in multiple games in different tabs.

### **ii). Game Playing**

- The sequence of cards shall be randomized initially.
- The user who firstly plays the card shall be determined randomly.

- Both normal and functional cards shall be provided in each game, in which normal cards are numbered from 0~9 with 4 colors available, and functional cards contain “Wild”, “Wild Draw 4”, “Draw 2”, and “Skip”.
- If a user plays a card, his/her opponent shall see the card immediately, without refreshing the entire web page.

### **iii). Game States**

- The state of each game shall be stored in a table in database.
- If a user closes a tab and reconnects to the game, the game shall be reloaded for that user.
- The state shall be updated in real time in response to user events and interaction with the game.

### **iv). Game Rule**

- The user who firstly plays all cards shall be the winner, and thus his/her opponent shall be taken as the loser.
- If two players use up all the cards in the pile but both have remaining cards in hand, the game shall be determined as a “Draw”.
- When playing a numerical card, it shall have the same color or the same number as the one shown on game board.
- “Wild” and “Wild Draw 4” shall maintain or change the color.
- “Wild Draw 4” and “Draw 2” shall force the opponent player to draw cards.
- “Skip” shall skip the next round of the opponent player.

### **v). Chatting**

- Chatting shall be enabled for all users in the lobby, after the login/registration.
- Chatting shall be enabled in each game room, for those users participating in an instance of game.

### **vi). Registration**

- All the required information shall be marked on registration page.
- The username shall be checked for uniqueness and the password shall be confirmed during registration.

### **vii). Login**

- Each registered user shall be able to login by using the username and password.
- The user information shall be saved in session, with no need for repeated login.
- The user shall be able to log out if needed.

### **viii). User Dashboard**

- Each user shall be able to view his/her user dashboard.
- The dashboard shall include all his/her previous playing records
- Each playing record shall list the basic information, such as the user s/he played against and the result (win/draw/lose).

## **IV. List of Preliminary Software Stack**

- Server Provider: Amazon Web Services - Elastic Compute Cloud (AWS - EC2)
- Server System: Windows
- Web Server: Apache
- Server Side Language: PHP
- Front-end Technologies JavaScript, Bootstrap, HTML
- Back-end Technologies: Laravel, Socket.IO
- Database: MySQL

## **V. Designated Team Responsibilities**

- Jianfei Zhao: Team Lead / Back-end Engineer
- Philip Yu: Front-end Lead / Github Master
- Alan Ng: Front-end Engineer / Document Writer
- Eric Chen: Front-end Engineer / Proof Reader
- Hang Li: Back-end Lead / Github Master

## **VI. Proof of Invited Team Members**

Here is the screenshot showing proof of all invited members in our team's repository.

csc667-02-sp19 / csc667-sp19-Team08 Private

Watch 1 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

Options

**Collaborators & teams**

Branches

Webhooks

Notifications






Integrations & services

Deploy keys

### Teams

No teams have been given access to this repository yet.

### Collaborators

 erichen96	Write	×
 Philip Yu pyu3	Write	×
 jzhao11		×
 Hang Li hank4457	Write	×
 AlanSFSU	Write	×

Search by username, full name or email address

Below are the github usernames with corresponding team members.

- erichen96: Eric Chen
- pyu3: Philip Yu
- jzhao11: Jianfei Zhao
- hank4457: Hang Li
- AlanSFSU: Alan Ng