PROJECT PLAN:
Homepage/Start Functionalities by WEEK 4
Night Phase/USER ACCOUNT CREATION/PLAYER CLASS by WEEK 6

We are currently working on using Parse to allow the user to signup and login to their individual accounts before accessing the homepage of the game. Once they have logged in, they should be able to add other players to their friends list if they have that persons account username. This dynamic will be used to Join and Start games. A player can start a game and generate a 4 digit-code that they can then send to there friends. That friend can enter the code under the Join game option to enter the lobby. The game begins when X number of players are in the lobby.

Day Phase by WEEK 8

2/20/2016 (STAN)
So we finished implementing Parse to let the user login. In this weeks meeting with the client we discussed how they wanted us to host the game - either with a cloud server (what we were thinking) or connecting each players device through WIFI (client idea). However, after asking a few TA's and browsing the web, our group came to the conclusion that connecting multiple devices through WIFI would be much more difficult than using an existing server/API - we would have to develop ways to connect different phones/models and that is way out of our league. For this week we are working on developing the player classes -

- Player.java : this is the parent class that has all of the general functions/moves for a player to
    - VOTE - During the night & day phases players are allowed to vote to either kill/heal/arrest according to their subclass (mafia/doctor/civilian)
    - MESSAGE - Can message outside of game AND inside game with their own respective sub classes (MAFIA W/ MAFIA , DOCTOR W/ DOCTOR, COP W/ COP etc)
- Mafia.java: this sub class extends Player.java and gives the player the option to KILL other players (disabling player functions so that they can no longer vote / message)
- Cop.java: can investigate / arrest players if they are Mafia
- Civilian.java: can only vote & message
- Doctor.java: can Heal/Vote/etc

2/27/2016 (STAN)

During today's 8 HOUR meeting, we changed a lot of our code and the project schedule. We:
- implemented Firebase and removed Pase
- Created a chat system using Firebase
- Allow users to chat anonymously and login to their account via Email + Password authentication
- Implement JoinGame / startGame logic code
- Designed how we are going to implement game logic on our next meeting (2/28/2016)
    - Use each users unique UID from Firebase to assign them a Player role. Basically we will pull their UID and from that we will know which user they are in our database. We'll be able to keep track of which users are currently playing / authenticated
- Aneesh planned most of what we will do (design + logic) and worked on generating random server code to connect to firebase server
- I coded all of the Firebase logic & backend
- Luc lagged for 8 hours

PRIORITY:
As a user, I want a main page with the options to either start or join a game, so that only one friend in the group needs to start and set it up.

PRIORITY:
As a user starting a game, I want the ability to customize the number of players, so that I can have the game built to the preferences of the group. FOR NOW WE HAVE AGREED TO START GAME WITH 5 PLAYERS FIRST. ADDING MORE PLAYERS WILL BE IMPLEMENTED LATER ON.

PRIORITY**:
As a user opening the app, I want the ability to log into an account to access the game, so that I can invite friends and talk to them through the apps chat system.

PRIORITY:
As a user starting a game, I want to be given a unique code for the game when it is set up, so that my friends (and not other people) will be able to join it.

PRIORITY:
As a user, I want to be able to join an existing game by entering the code from a separate menu, so that I have a fast and simple means of joining my friends.

PRIORITY:
As a user starting the game, I want to have the option of acting as player moderator for that game, so that I can manage the timing and flow of voting and discussions.

PRIORITY:
As a user starting the game, I want to have the option of allowing the computer to act as a moderator and automatically handle votes and turns, so that one person is freed to participate in the game.

PRIORITY:
As a playing user, I want the roles of the players to be random and hidden, except if they share roles, they die, or the game ends, so that we will have to socially interact to guess roles of other players.

PRIORITY:
As a playing user, I want to have access to public as well as private messaging services, so that I can interact with all other players while simultaneously coordinating actions with my team.

PRIORITY*:

As a playing user assigned to the "mafia" role, I want to be able to vote for a player in the game to "kill", so that the mafia can attempt to win the game by becoming a majority of the remaining players.

PRIORITY*:

As a playing user assigned to the "doctor" role, I want to be able to vote for a player in the game to "save", so that I can prevent the mafia from achieving their win.

PRIORITY*:

As a playing user assigned to the "cop" role, I want to be able to choose one player to "investigate", so that I can determine whether the player has a "mafia" role or not.

PRIORITY*:

As a playing user assigned the "doctor", "cop", or "villager" role, I want to be able to vote for a player to "lynch", so that I can attempt to win by eliminating suspected members of the mafia.

PRIORITY*:

As a playing user assigned the "mafia" role, I want to be able to infiltrate the vote for a player to "lynch", so that I can attempt to win by tricking non-mafia into eliminating themselves.

PRIORITY:

As a playing user who is eliminated in-game, I want to be able to spectate the rest the game, so that I can follow its progress even though I am no longer able to participate.

- Home Page -
  ○ Two buttons with to Start Game or Join Game
- Start Game -
  ○ User clicks start game button and is given a server code to share with other players
  ○ Minimum of 4 players (1 automated moderator, 1 mafia, 1 policeman, 1 doctor, 1 civilian) to start a game
  ○ Randomly generated roles, with the option given to the first player to be moderator
  ○ Once the number of players is set, prompt starting user to choose the number of players for each role
- Join Game -
  ○ User clicks to join a game and must enter a server code given by another player to enter

the same queue together.
- During Game -
  - Night: All players have their phones' screen in message mode. Only the mafia members acknowledge each others. All mafia members pick a target to kill. Next, the doctor picks someone to save. Lastly, the cop pick someone to check if it's a mafia.
  - Day: All players are announced the victim. The victim has to leave the game and his/her role is revealed. Next, all the rest of the players get to vote who they would like to hang after a discussion. The accused player is eliminated, and his/her role is revealed.
  - The night begins and the process keeps repeating until the end.

- Player Killed (Out of Game)
  - User's character has been eliminated from the game. User's screen is able to view messages between other active players. User is unable to perform any of the game's transactions. User becomes a spectator.

- Player roles:
    Moderator:
      - User is either randomly assigned the role of moderator, or chosen by the member who started the game. User is allowed to view the identity of all players.
    Villager:
      - User is given the role automatically. This use is only allowed to vote during day phase.
    Doctor:
      - User is assigned role automatically. During the night phase, user is allowed to choose 1 player whom to save. This player will be immune to any attack from a mafia.

    Cop:
      - User is assigned role automatically. During the night phase, use is allowed to guess one player to check if he/she is a mafia. User then is informed whether it is correct.

- The vote:
  - All alive players all allowed to vote. Each alive player selects one player to hang from the list of alive players on their phones' screen. If the vote is majority (50% minimum), the accused player get killed. If no one votes during that particular day, no one gets killed and the first voting phase ends.
  - The time of voting phase is unlimited.
- End of game:
    - Mafia wins: number of members of mafia is greater than civilians.
    - Civilian wins: all members of mafia are killed.
        - Each player's role is revealed