

Initial Plans

- **Players:**
 - 1 player vs the game system
 - If I can work in multiplayer, then 1 player vs 1 player online
- **Objective:**
 - To beat the other player in a game of tennis
- **Rules:**
 - Default game setup
 - You will choose your player among the
 - The first player to win three games wins
 - Scoring system is 0, 15, 30, 40, and then game
 - 40-40 tied is deuce
 - Winning the next point is advantage to whomever
 - Player must win two straight points to get the game from deuce
 - Custom game setup
 - Choose the number of sets to play, from one to best out of five (must win three)
 - Choose to have ad scoring or no ad scoring
 - Tournament style
 - Player must win five rounds in order to be crowned tournament champion
- **Resources:**
 - Time: players can take as much time as they want in between points/serving
- **Game State**
 - Tennis ball, specifically its location during a rally
- **Information**
 - The game will allow players to see the complete game state at all times
- **Sequencing**
 - In general, the sequencing is real time though, not a turn based game
 - Each player takes turns hitting the ball in a rally if the shot is in bounds
 - Each player takes turn serving games
- **Player Interaction**
 - Players engage in direct conflict
- **Theme**

- The main theme of the game will be Wimbledon, so a prestigious, traditional grass court tournament

Entities

- All tennis players can move left and right, forward and backwards, and diagonally
- All tennis players can hit a backhand or a forehand stroke or volley and serve at the start of a point
- Each specific player has a special move that they can use to increase their chances of winning
- The useSuperMove() will be overridden with a special algorithm calculation for success and power of the move, it can only be used 3 times during a set
- TennisBall will represent the shape of the tennis ball being moved around
- People
 - Roger Federer
 - 8/10 speed
 - 9/10 serve
 - 6/10 backhand
 - 9/10 forehand
 - Super Move: Inside Out Forehand
 - Rafael Nadal
 - 10/10 speed
 - 6/10 serve
 - 8/10 backhand
 - 7/10 forehand
 - Super Move: Running Forehands
 - Novak Djokovic
 - 9/10 speed
 - 7/10 serve
 - 10/10 backhand
 - 8/10 forehand
 - Super Move: Backhand Down the Line
 - Andy Murray
 - 9/10 speed
 - 8/10 serve
 - 9/10 backhand
 - 8/10 forehand
 - Super Move: Curvy Slice

- Stan Wawrinka
 - 7/10 speed
 - 8/10 serve
 - 10/10 backhand
 - 8/10 forehand
 - Super Move: Bullet One Hand Backhand
- Pete Sampras
 - 8/10 speed
 - 10/10 serve
 - 7/10 backhand
 - 8/10 forehand
 - Super Move: Smash Serves
- Andre Agassi
 - 9/10 speed
 - 7/10 serve
 - 9/10 backhand
 - 7/10 forehand
 - Super Move: Return Backhand
- Bjorn Borg
 - 9/10 speed
 - 7/10 serve
 - 9/10 backhand
 - 9/10 forehand
 - Super Move: Super Speed
- John McEnroe
 - 8/10 speed
 - 9/10 serve
 - 7/10 backhand
 - 8/10 forehand
 - Super Move: Deft Volley
- Ivan Lendl
 - 8/10 speed
 - 8/10 serve
 - 7/10 backhand
 - 9/10 forehand
 - Super Move: Bullet Forehand
- UML Class descriptions

