Product Backlog

Sprint 1

1. Game mechanics (20 working unit)

* b~~oard and game state representation~~  Sprint 1
  + 2D array board[8][8] (Huy)
  + Board setup (Huy)
  + Display (Huy + Josh)
  + Move (Huy)
* ~~Check if a move is valid~~ Sprint 1 (JuAune)
* ~~move: once a move is made~~, Sprint 1
  + update the board (flip tiles color) (Huy)
  + show next possible moves (JuAune)
* t~~ermination condition detection (can any more pieces be placed?)~~ Sprint 1
  + No possible move -> skip turn (Josh)
  + Board is full -> end game (Josh)
* u~~ndo/redo~~ Sprint 1
  + undo stack (Huy)
  + redo stack (optional)
* g~~ame result report (win/lose/draw).~~ Sprint 1
  + count tiles + winner (Juaune + Huy)

2. Game Server (10 working unit) (Josh)

* a~~llows clients to connect (use telnet~~) Sprint 1
  + Create socket, bind, listen, accept, send/recv messages.
  + Recv client move
  + Make an AI-move
  + update server board
  + send AI-move to client
  + Shutdown, close.
  + Run full game using AI engine and game mechanics

All Functions desired in sprint 1 were completed in Sprint 1

Sprint 2

3. Game AI (30 working unit)

* r~~andom player~~ Sprint 1
  + pick a random move from available moves (Josh)
* m~~in-max with limited depth~~ Sprint 2
  + Min-max Algorithm (Huy + Josh)
  + evaluate moves. ( Huy)
  + Integrate AI to server code, user set difficulty and ai color. (Josh & Juaune)
* alpha-beta-pruning (optional)
* [optional] more advanced game AI, customize evaluation function.

All required functionality for sprint 2 finished during that sprint.

Sprint 3

4. GUI client (30 working unit) - use Qt with C++

Allows users to connect to the server using a GUI interface

* GUI client
  + connect to the server + send/recv msg (move).
  + ~~Board setup & display~~
  + ~~Move~~
  + ~~Undo~~
  + ~~Flip tiles color after a move~~
  + ~~Show Possible moves~~
  + End Game

5. Agile computing methodology (10 working unit) - teamwork

Most of the GUI functionality implemented in sprint 3, those not completed related to client server interactions.