CS246 Chess Group Project Plan of Attack

**Project Overview & Breakdown**

From reading the project specifications there seems to be three stages of completeness for Chess.

Stage 1) A basic stripped down game of Chess playable only by human users. This means an implemented game with a text display without the following rules: pawn capturing, pawn initial movement (two squares forward), en passant, pawn promotion, castling, King move validity. Creating a test suite for this basic implementation is should be done as well.

Stage 2) Implementing rest of the formal rules included in the game, the computer player’s behavior and the graphical interface for the program and the test suite for this.

Stage 3) Any enhancements beyond the required specifications and test suite for this.

**Stage 1 Timelines**

Judging from the project’s UML the basic game should be broken down into the following classes.

* An Game Controller: Which handles I/O and overall control over the game
* A Game State: Keeps track of the board and controls is responsible for making movement calls for the game
* Pieces(King, Queen, Bishop, Knight, Rook, Pawn): Define the behavior of pieces in the game
* Players(Human and Computer): Defines users and how they interact with the game

The Game Controller depends on most other parts of the project but can be partially implemented. This section should be started first but should be completed last.

The Game State depends on the piece classes and should be completed along after the pieces are completed (or at least partially completed)

Pieces should be started and completed first since most other classes use it

Players should be completed last since they come into play after the board is set up

Individual responsibilities:

*Deadline without Test Suite and Bug Fixes: July 18th*

*Deadline with Test Suite and Bug Fixes: July 19th*

**Stage 2 Timelines**

Stage 2 can be broken down into 3 sections

* Additional Chess Rules: pawn capturing, pawn initial movement (two squares forward), en passant, pawn promotion, castling, King move validity.
* Graphical Interface: Interface using graphics
* Computer players: Behavior of computers as well as their interactions with humans and other computers

Additional Rules will need to be implemented first in this case as the computer behavior relies on these rules

Graphical Interface should be implemented last as this does not affect other components of the game

Computer Players should be implemented after the game rules are completed

*Deadline without Test Suite and Bug Fixes: July 23rd*

*Deadline with Test Suite and Bug Fixes: July 24th*

**Stage 3 Timelines**