SE 101 Project Proposal
Group 43
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What it it:
This project will be a chess game run on an Arduino Uno. It will take inputs and output to a screen on a connected shield. It will have both two and one player capabilities. We will build these options into the game, with an AI for the single player mode.

Major Software Components:
- Chess Library (Contains all basic chess functions)
- Chess Game Function (Runs the game of chess)
- AI (For single player mode)
- Interface Program (Program to run graphics and user inputs)

Prototype Plan:
By the Prototype Due Date, we plan to have a working two-player game of chess, where our code takes input from the players, checks that the player's move is valid, and moves the player's piece.

Hardware Required:
- Arduino Uno
- Adafruit 1.8" 18-bit Color TFT Shield for Arduino with MicroSD and Joystick
- Power source (either from the computer or portable phone charger)

Anticipated Challenges:
- Creating various levels of AI that play according to the user's selected level of difficulty
- Debugging whether moves that the user/ai performs are valid or not
- Castling, when should the AI perform it
- Ranking AI moves
- AI anticipating future moves by player/itself