MCIT 591, spring 2020

Final Team Project Proposal

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Project Idea: Create a playable game of chess using Java.

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| Classes: | JMG\* | MT\* | PK\* |
| * + - Methods: |
| 1. Board |  | X |  |
| * + - 2d array [8, 8] |  |  |  |
| 2. Pieces (moves) | X |  |  |
| * + - 2x sets, white set & black set |  |  |  |
| * + - 8x pawn   (2 forward initially option, 1 forward all other times) |  |  |  |
| * + - 2x rook (forward, or backward, or left, or right, 1+) |  |  |  |
| * + - 2x knight (3 in any single direction + 1 perpendicular) |  |  |  |
| * + - 2x bishop (diagonally, 1+) |  |  |  |
| * + - 1x queen (any, 1+) |  |  |  |
| * + - 1x king (any, 1 only) |  |  |  |
| 3. Basic Moves (separate class??? Or combo with another?) |  |  |  |
| * + - standard / allowable moves | X |  |  |
| * + - board slots available |  | X |  |
| 4. Special Moves (separate class??? Or combo with another?) |  |  |  |
| * + - pieces captured | X |  | X |
| * + - “promotion” by pawn when reaching end of board |  |  |  |
| * + - “castling” by king |  | X |  |
| * + - check |  |  | X |
| * + - check-mate |  |  | X |
| 5. Players |  |  |  |
| * + - 1 & 2 |  |  |  |
| 6. Junit Testing | X | X | X |
| 7. Options to explore: | X | X | X |
| * + - Computer opponent / player? |  |  |  |
| * + - Graphics? |  |  |  |

\* We will adjust these plans as necessary in order to balance the workload among team members. We define workload as number of lines of code written.