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Challenge: Checkers Game Data Model Concept

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1,x |  | 1,x |  | 1,x |  | 1,x |
| 2,x |  | 2,x |  | 2,x |  | 2,x |  |
|  | 3,x |  | 3,x |  | 3,x |  | 3,x |
| 4,x |  | 4,x |  | 4,x |  | 4,x |  |
|  | 5,x |  | 5,x |  | 5,x |  | 5,x |
| 6,x |  | 6,x |  | 6,x |  | 6,x |  |
|  | 7,x |  | 7,x |  | 7,x |  | 7,x |
| 8,x |  | 8,x |  | 8,x |  | 8,x |  |

* Piece movement:
  + To determine how the pieces should move, I used a row system from 1 to 8
  + The red spaces are never used so there is no reason to assign them values
  + A piece always must move to a new row
  + The color of the piece determines if it is allowed to ascend the rows or descend the rows
  + The x value determines
    - if the space is occupied or unoccupied
    - the color of the piece if it is occupied
    - and if the piece is kinged or not
  + If a piece is next to a piece of the opposite color and no piece is behind it blocking the move, it may jump it and destroy it
  + When all the pieces are destroyed on one team, the game ends with a victory for the team with pieces remaining
  + Ties will be declared if the game finds no possible moves.