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CSCI 3010 – HW4 Pt. 1

Class Outline:

**mainwindow**

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| --- | --- |
| *Public:* |  |
| MainWindow(QWidget \*parent = nullptr); | Constructor for main window, creates object and sets it up. |
| ~MainWindow(); | Deconstructor For Main Window |
| LoadLeaderboard(string filename); | Loads leaderboard from csv |
| SaveLeaderboard(string filename, vector<\*Players>); | Updates leaderboard with information from new players |
| *Private Slots:* |  |
| void NewGame(); | Default slot that reacts to New Game button being clicked |
| void StartGame(); | Default slot that reacts to Start Game button being clicked |
| void EndGame(); | Default slot that reacts to End Game button being clicked |
| void QuitGame(); | Default slot that reacts to Quit Game button being clicked |
| void UndoMove(); | Default slot that reacts to Undo button being clicked. Emits signal to Player::Undo(); |
| void ReRoll(); | Default slot that reacts to Re-Roll button being clicked |
| void Roll(); | Default slot that reacts to Roll button being clicked |
| void Move(); | Default slot that reacts to Move button being clicked. Emits signal to Player::MovePlayer(); |
| *Private:* |  |
| vector<\*Player> still\_playing\_players\_; | Storage for players who have not quit |
| vector<\*Player> all\_players\_; | Storage for all players who started (only used for leaderboard) |
| vector<\*Tile> tiles\_; | Storage for Tiles |
| int current\_turn\_; | Current Player’s Turn |

**Player**

|  |  |
| --- | --- |
| *Public:* |  |
| Player(QColor color, string name) | Constructor for player, creates object and sets it up. |
| *Signals:* |  |
| void MovePlayer(int roll); | moves player’s current location. Receives signal from Move() slot. |
| int Undo(); | returns the location of the player previously. Receives signal from UndoMove() slot. |
| *Private:* |  |
| string name\_; | storage for name |
| QColor color\_; | Storage for color |
| vector<\*int> previous\_moves\_; | storage for previous moves |
| int current\_location\_; | Player’s current location |
| int undos\_remaining; | tracks number of undos remaining |
| int rerolls\_remaining; | tracks number of rerolls remaining |

**Tile**

|  |  |
| --- | --- |
| *Public:* |  |
| Tile(int number); | Constructor for tile, creates object and sets it up. |
| AddPlayer(Player\* add\_player); | adds the player to the tile |
| RemovePlayer(Player\* remove\_player); | removes the player from the tile |
| *Private:* |  |
| int number; | storage for number of tile |
| int \* chute; | storage for chute (if applicable for this tile) |
| int \* ladder; | storage for ladder (if applicable for this tile) |
| vector<\*Player> | storage for players currently on this tile |