

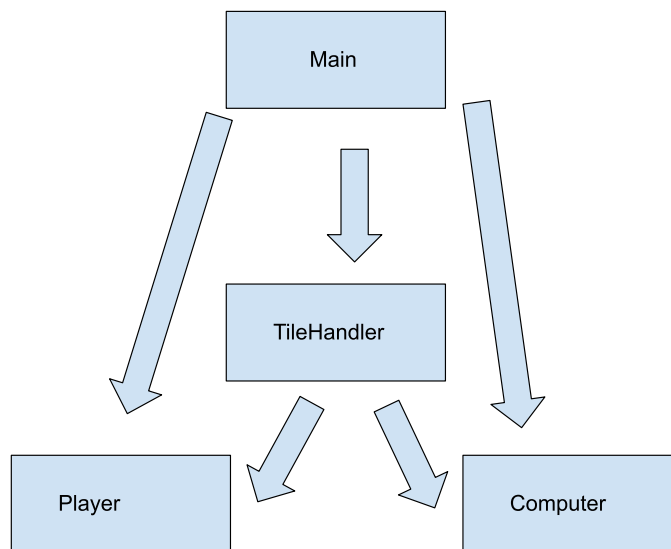
TERMINAL DESIGN

Main: This class contains the game loop and collects all user input. Runs the main parts of the game.

TileHandler: This class handles everything done with the tiles. It plays tiles, handles the game board, and handles the boneyard.

Player: This class handles the player's tiles. It adds and removes tiles, as well as rotates them.

Computer: This class handles the computer's tiles. It adds and removes tiles, as well as rotates them. It also play's the computer's round.



DESCRIPTION OF OBJECTS IN Main.java

`main()`: This is the main function that runs the entire program.

DESCRIPTION OF OBJECTS IN TileHandler.java

Variables:

int[][] allTiles: all possible game tiles

Int[][] boneyard: all tiles in the boneyard

Int boneLength: number of tiles in the boneyard

Int[][] boardTiles: all tiles on the game board

Int topBoardLen: length of the top row of the game board

Int botBoardLen: length of the bottom row of the game board

Int lastTop: index of the last tile on the top row of the game board

Int lastBot: index of the last tile on the bottom row of the game board

Functions:

TileHandler(Player player, Computer computer): Constructor deals tiles to the players and initializes all variables.

Param player is the player object

Param computer is the computer object

getRandTile(): gets a random tile from the boneyard. Returns the tile.

getNumTiles(): gets the number of tiles in the boneyard. Returns this number.

addBoardTile (int[] tile, int loc): Adds a tile to the board.

Param tile: The tile to be added.

Param loc: the location of the tile to be added. Loc 1 is top left, loc 2 is bottom left, loc 3 is top right, loc 4 is bottom right.

getBoard(): creates the visuals for the board. Return the string that contains the board.

isPlayable(int[] tile, int loc): determines if a tile is playable. Returns the location where is playable.

Param tile is the tile to be checked

Param loc is the location where the tile will be checked. Loc 1 is left and loc 2 is right.

getBoardNum(): Returns the number of tiles on the board

gameOver (Player player, Computer computer, int lastPlayed): handles the end of the game. Determines the winner.

Param player is the player object.

Param computer is the computer object

Param lastPlayed is the last player to place a tile

DESCRIPTION OF OBJECTS IN Player.java

Variables:

int[][] playerTiles: tiles in the player's tray

int numTiles: number of tiles in the player's tray

Functions:

giveTile(int[] tile): gives the player a tile.

Param tile is the tile to be given

removeTile(int pos): removes a tile at a given position

Param pos is the location of the tile to be removed

getTiles(): Returns a string of the player's tiles

getTilesInt(): returns the player's tiles in int[][] format

getNumTiles(): returns the number of tiles in the player's hand

rotateDomino(int pos): rotates a tile at a given position

Param pos is the location of the tile to be rotated

getTile(int pos): returns a tile at a given position

Param pos is the location of the tile to be given

DESCRIPTION OF OBJECTS IN Computer.java

Variables:

`int[][] compTiles`: tiles in the computer's tray

`int numTiles`: number of tiles in the computer's tray

Functions:

`giveTile(int[] tile)`: gives the computer a tile.

Param `tile` is the tile to be given

`removeTile(int pos)`: removes a tile at a given position

Param `pos` is the location of the tile to be removed

`getTilesInt()`: returns the computer's tiles in `int[][]` format

`getNumTiles()`: returns the number of tiles in the computer's hand

`rotateDomino(int pos)`: rotates a tile at a given position

Param `pos` is the location of the tile to be rotated

`getTile(int pos)`: returns a tile at a given position

Param `pos` is the location of the tile to be given

`canPlay(TileHandler tileHandler)`: plays one of the computer's tiles if possible. Returns false if the computer must draw.

Param `tileHandler` is the `TileHandler` object.