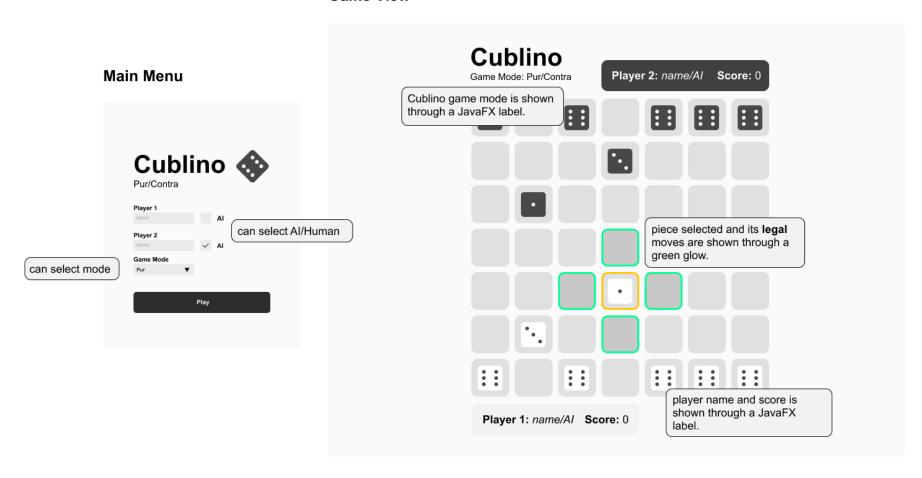
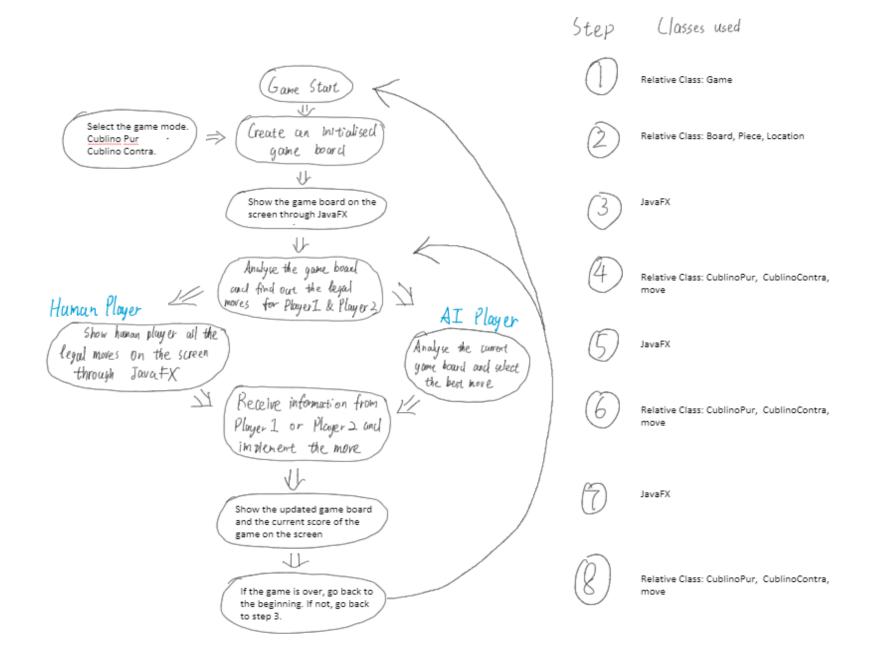
Assignment 2 - Design Document

Basic JavaFX UI Layout

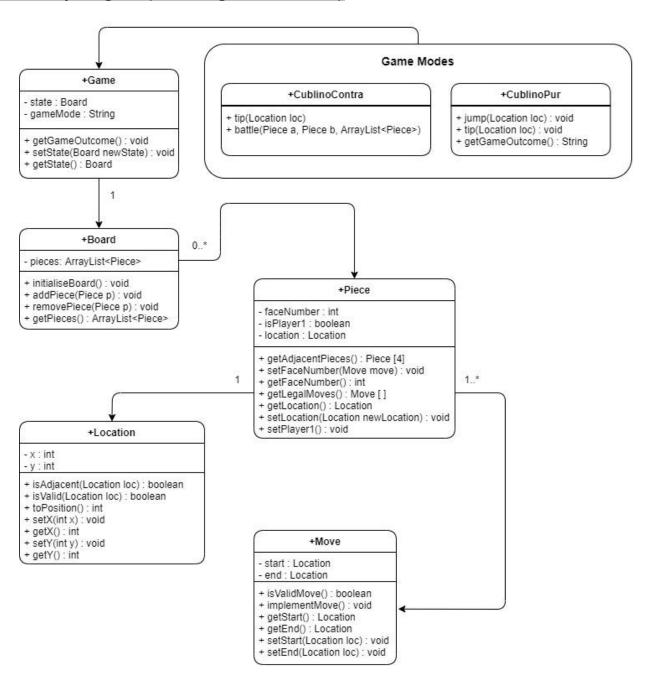
Game View



Basic Overview of Game Implementation Logic



Basic Java Class Relationship Diagram (excluding the UI classes)



Basic Classes' Specifications

Location

Fields:

- Int x
- Int y

Methods:

- o isAdjacent(Location loc) // checks if a location is adjacent
- o isValid (Location loc) // checks if a location is valid
- o toPosition() // returns an integer value for the current coordinate
- Setters and getters

Piece

• Fields:

- Int // The current number facing up, default: 6.
- o (Final) Boolean isPlayer1 // checks if piece in player 1
- Location // current location of the piece

Methods:

- getAdjacentPieces() // gets an array of pieces around current piece
- setFaceNumber(Move m1) // changes face number of piece
- getFaceNumber()
- o getLegalMoves() // gets all possible moves/jumps (depends on the gamemode) for the current piece
- Setters and getters

Game

• Fields:

- Board // current state of the game
- String // stores the current game mode

Methods:

- isGameOver() // game is over or draw
- Setters and getters

The game starts with creating an initialised board.

Board

- Fields:
 - Piece [] // pieces on the board
- Methods:
 - initialisedBoard() initialise a board
 - Setters and getters

Move

- Fields:
 - Location start
 - Location end
- Methods:
 - isMoveValid()
 - implementMove()
 - Setters and getters

CublinoPur

A class containing methods of implementing a Cublino Pur move

- Methods:
 - o jump(Location loc) // output a new location after jumping
 - o tip(Location loc) // output a new location after tipping
 - o getGameOutcome() // gets the game outcome (win, loss, draw)

CublinoContra

A class containing methods of implementing a Cublino Contra move

- Methods:
 - tip(Location loc) // output a new location after tipping
 - o battle(piece, piece, pieces[]) // remove or keep a piece after a battle and update piece position