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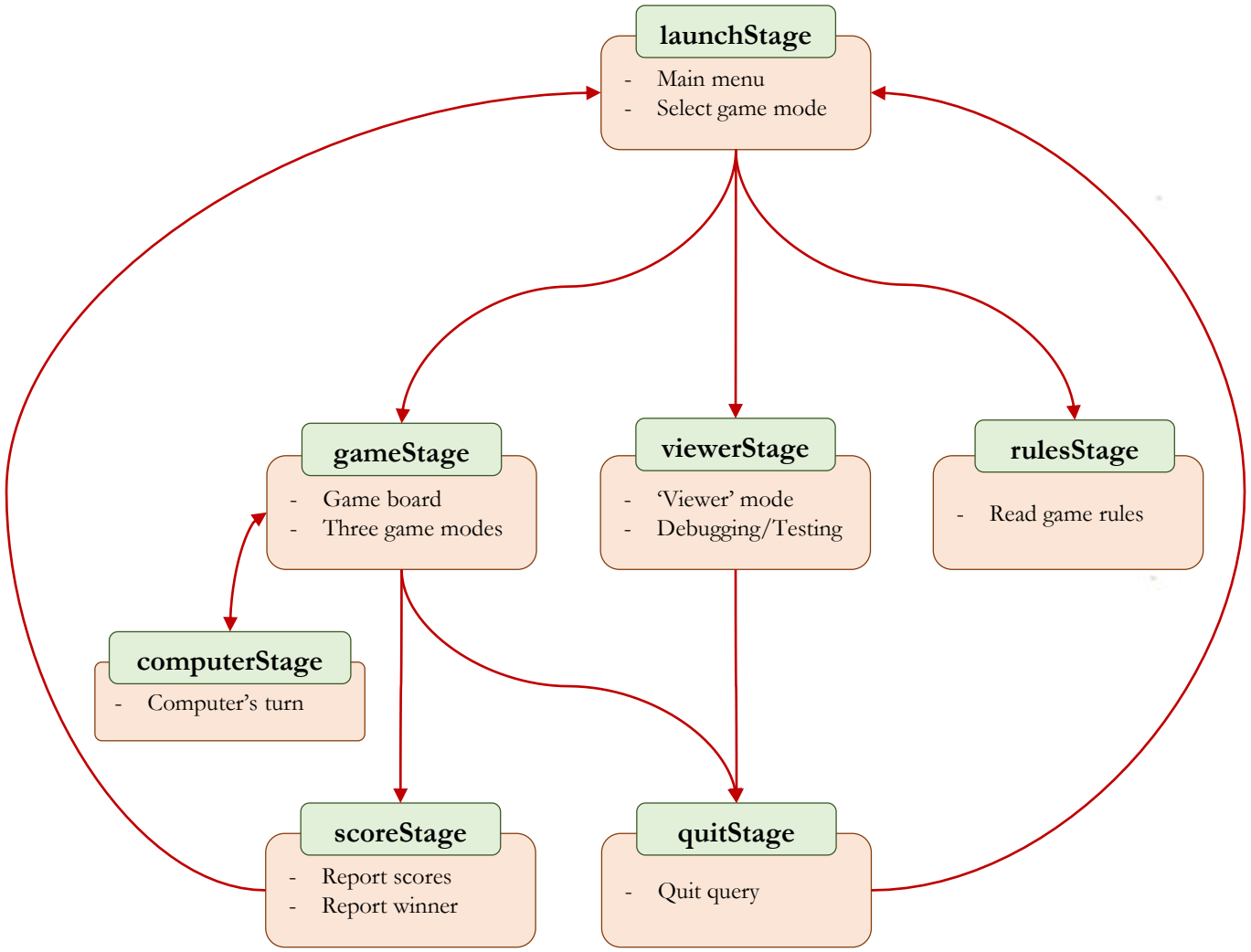
Game Design

UI Design

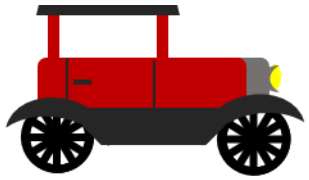
Code Design

Method Example

Demonstration



Game Design



Flow of game

Relationship between Stages

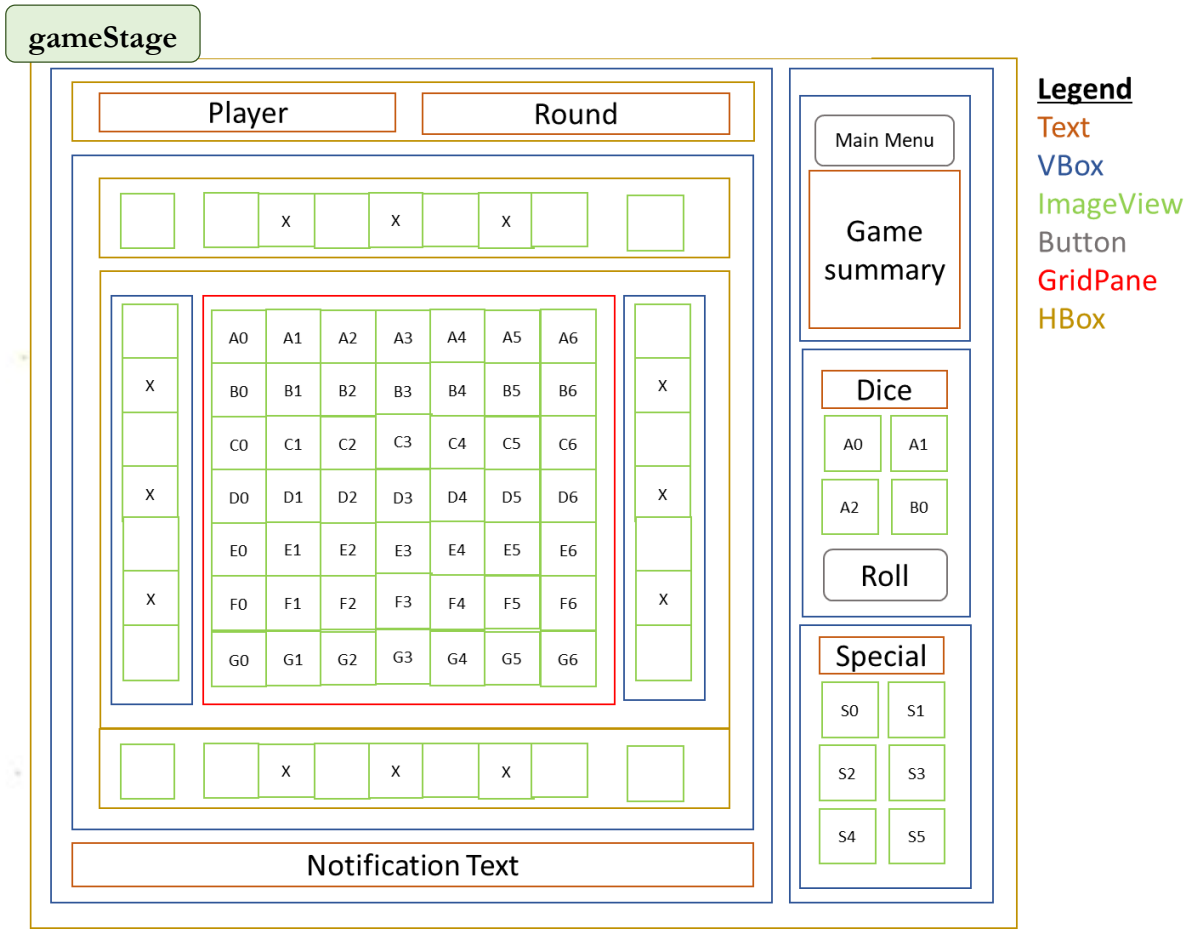
Function of Stages

UI Design

Break into components

Find suitable JavaFX classes

Plan hierarchy and layout

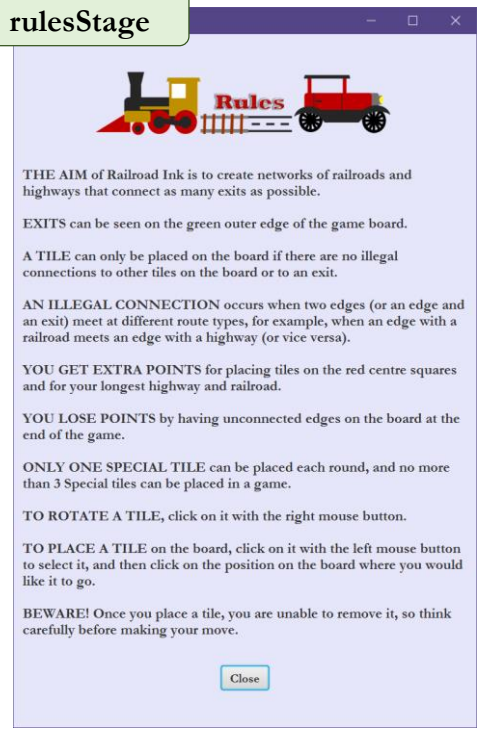


UI Design

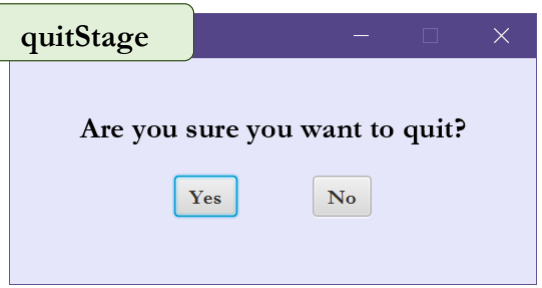
Final designs

launchStage

rulesStage



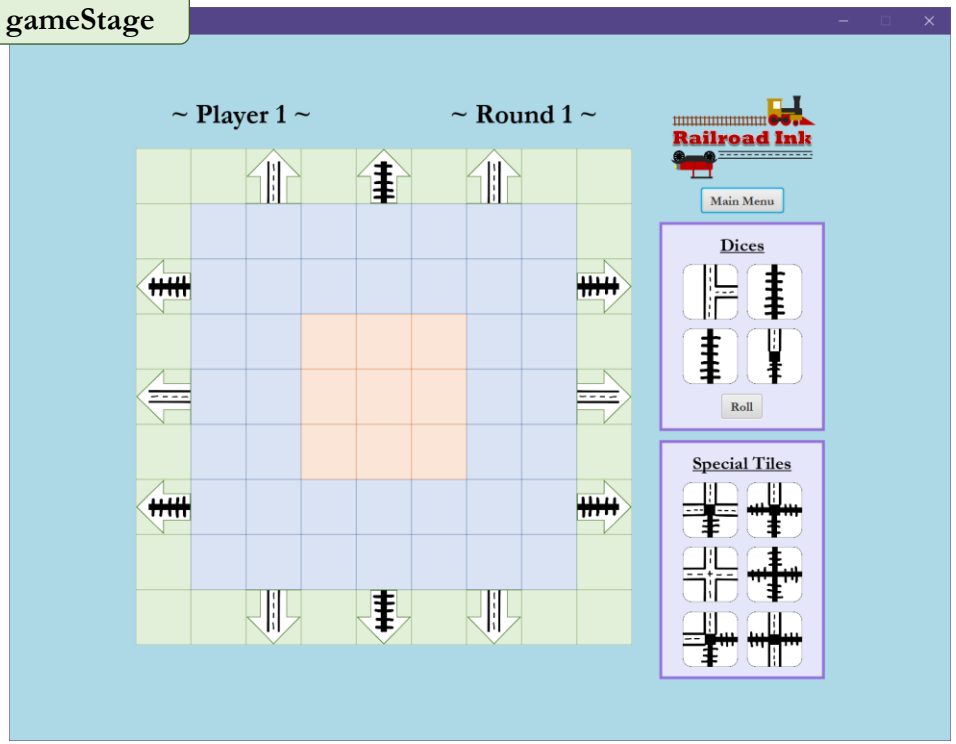
quitStage



UI Design

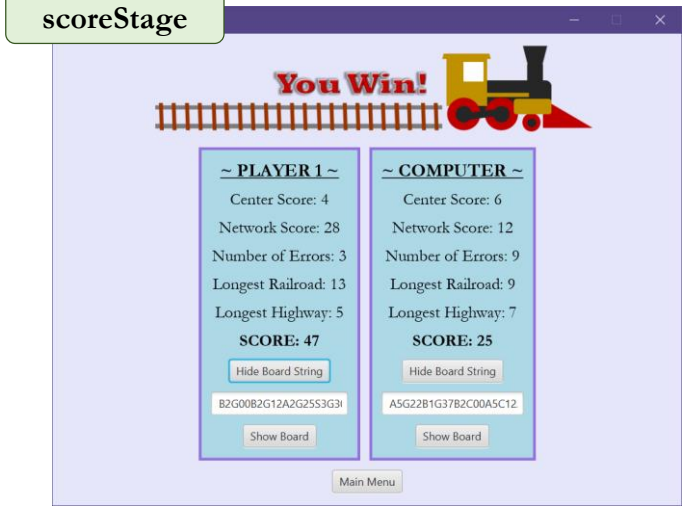
Final designs

gameStage



scoreStage

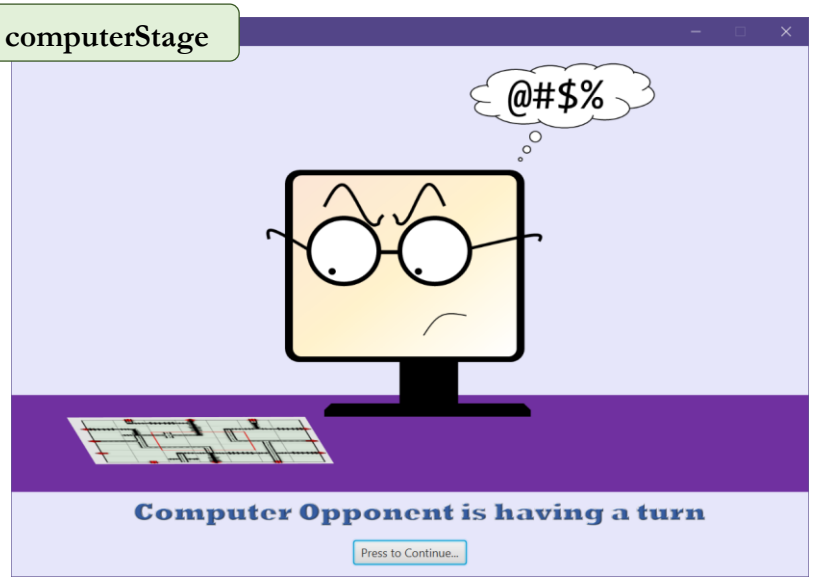
scoreStage



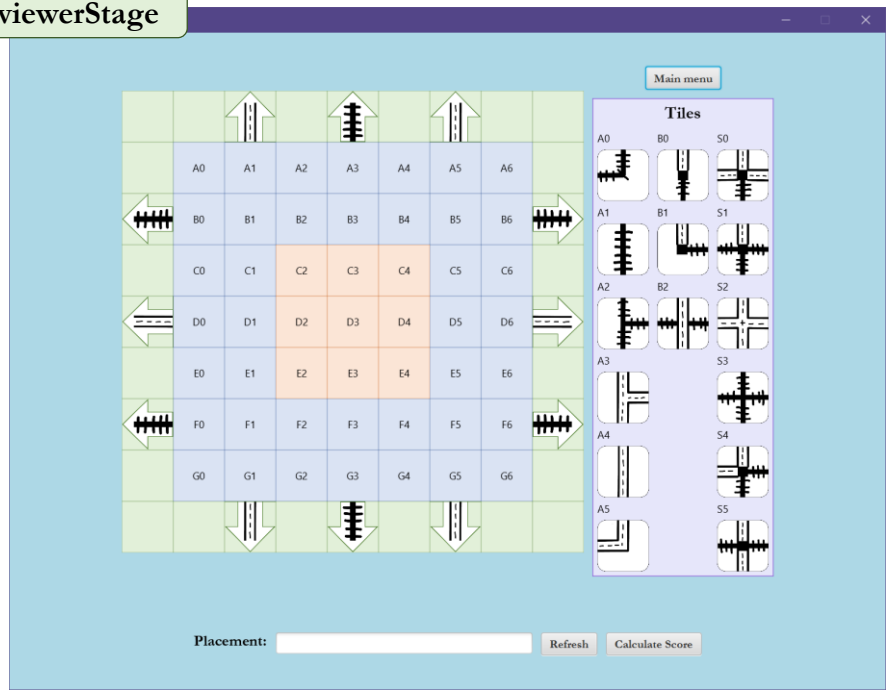
UI Design

Final designs

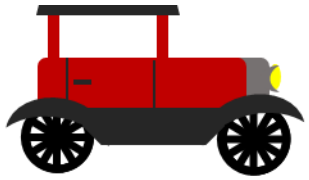
computerStage



viewerStage



Code Design



Classes

UI Classes

Viewer
- Main UI class
- Builds and launches all Stages

ImageHandler
- Image retrieval and manipulation

SpecialTiles
- State and behavior of the special tiles sub-UI

Dices
- State and behavior of dices sub-UI

Primary Game Classes

Board
- Checks placement validity
- Stores all placements

ComputerOpponent
- State and behavior of computer opponent.

ScoreCalculator
- All score calculation methods

Tile
- State and behavior of tiles

Utility Classes

Iterator
- Enable iteration around the edges of a tile

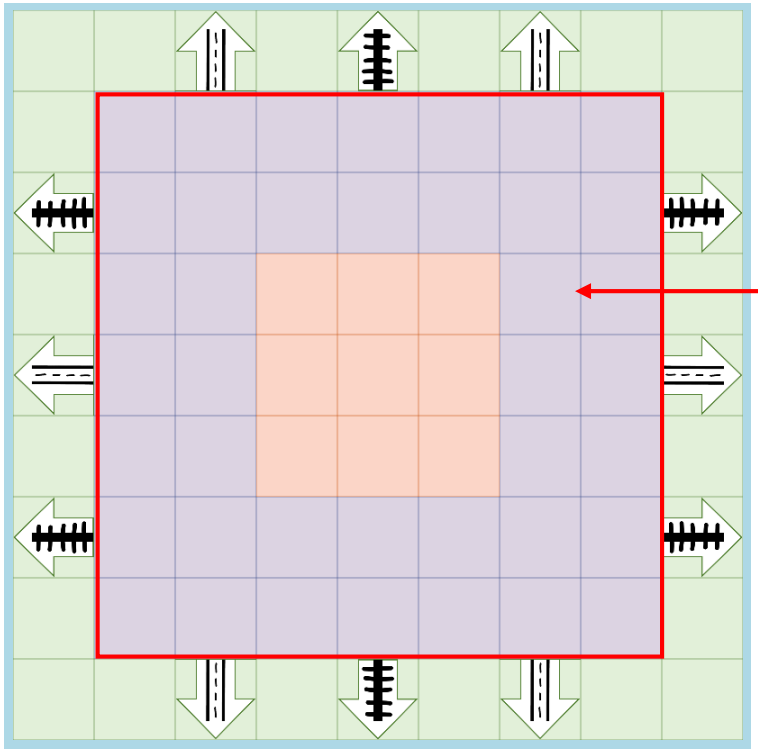
Placement
- Enable easy access to components of a placement string

RailroadInk
- Utility methods

PlayerData
- Store game data for each player

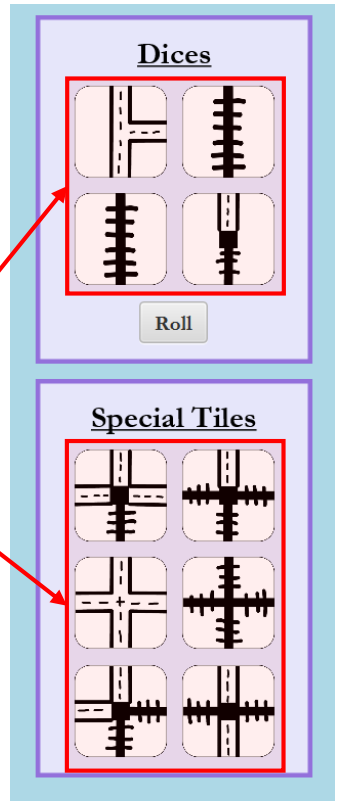
Code Example

Tile Placement



Viewer
.setUpDropTarget()

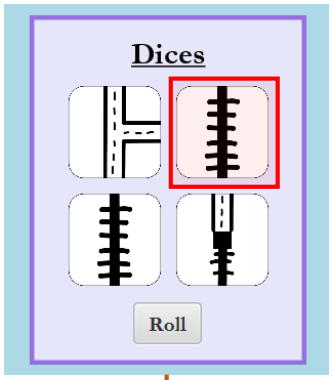
Viewer
.setUpSelectAndRotate()



Code Example

Tile Placement

Player clicks on tile with left mouse button

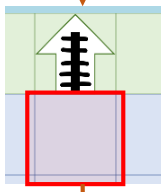


Viewer

New Placement object created

new **Placement**

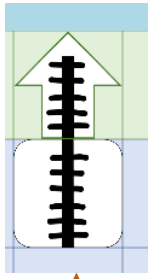
Player clicks on board with left mouse button



Viewer

Placement object updated with coordinates

Placement.updateCoordinates()



Board

If placement is legal .addTile() returns **true**

Illegal placement!

Board

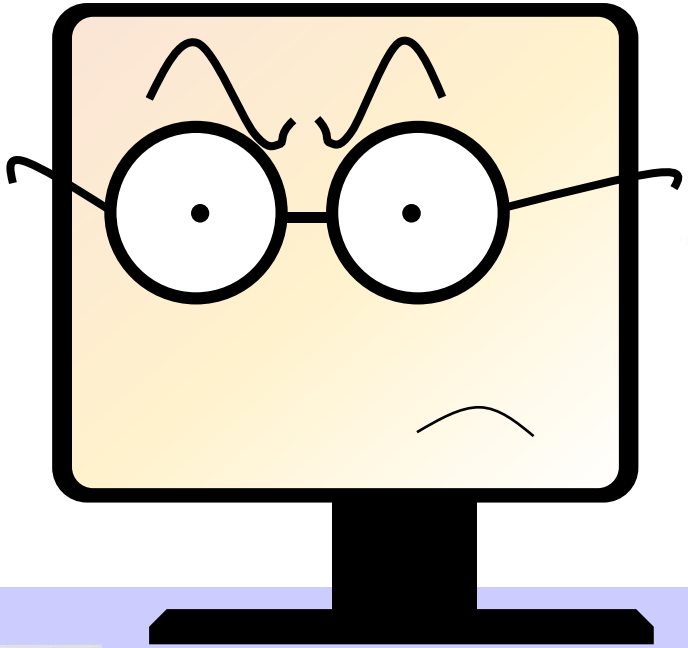
If placement is illegal .addTile() returns **false**

PlayerData

Board.addTile()

Placement is passed to that player's Board object

Please shut up and just show me…



Demonstration