

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Railroad Arcade

The Capstone Experience

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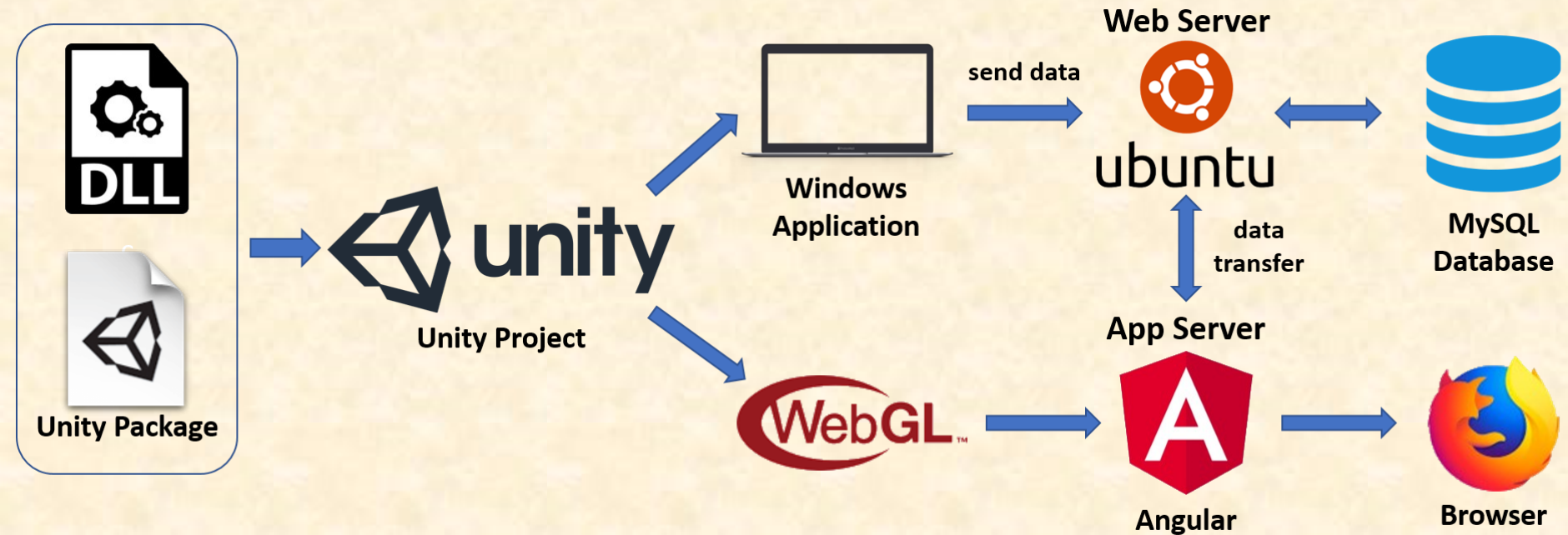
From Students...
...to Professionals

Project Overview


- Build reusable components to reduce game development time
 - Main Menu with Level Selection, Scoring, Login, Settings, PDF Generation, Message Box
 - Different configurations for each
- Simulations available on Windows PC and Web
 - Developed as a local application
 - Simplified upload process to web
- Create sample games to demonstrate reusability and functionality



System Architecture



Main Menu Component


Logged in as Meg Smith (ID 486) [Logout](#) 

Category:

Type:

Scenario:

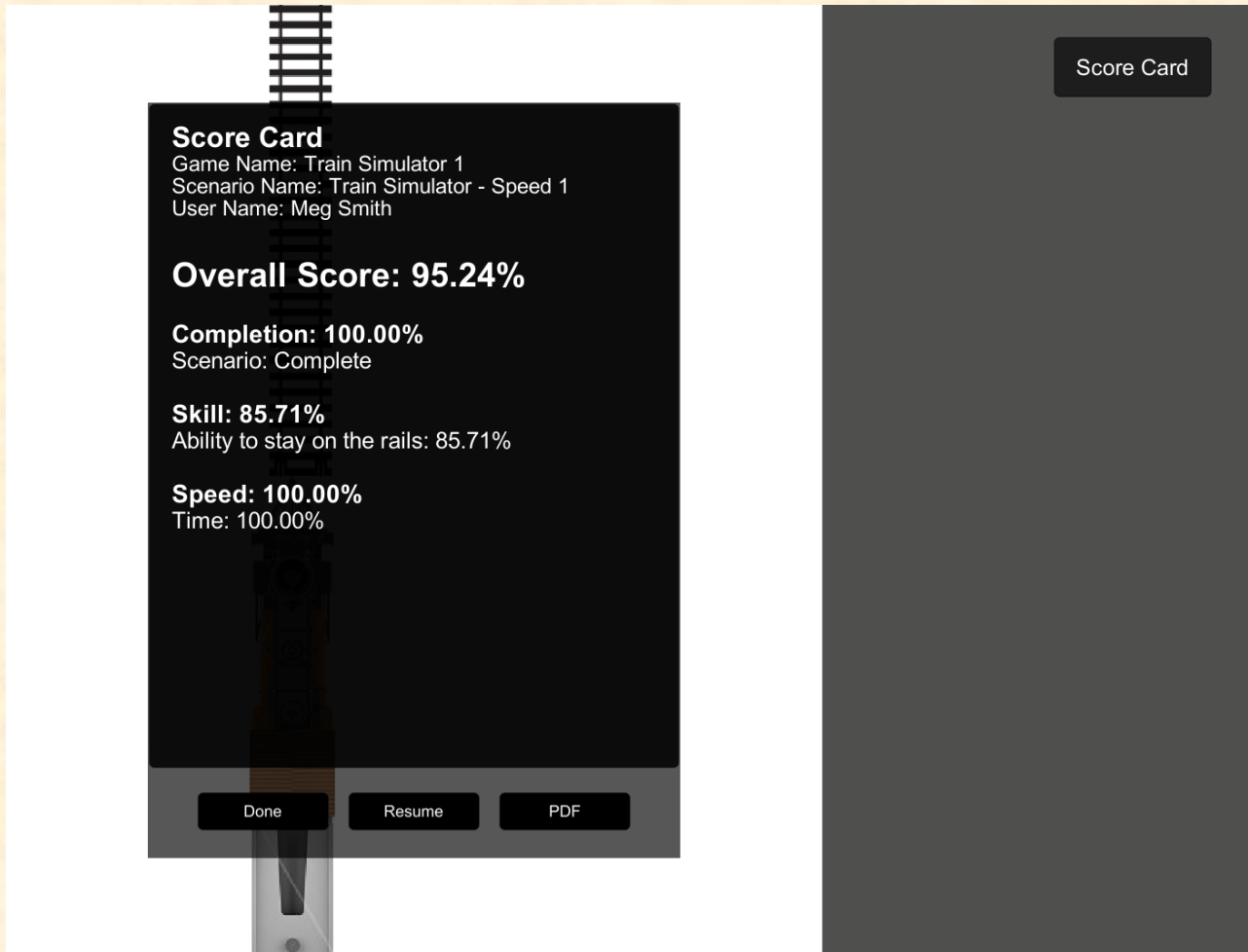
[Start](#)



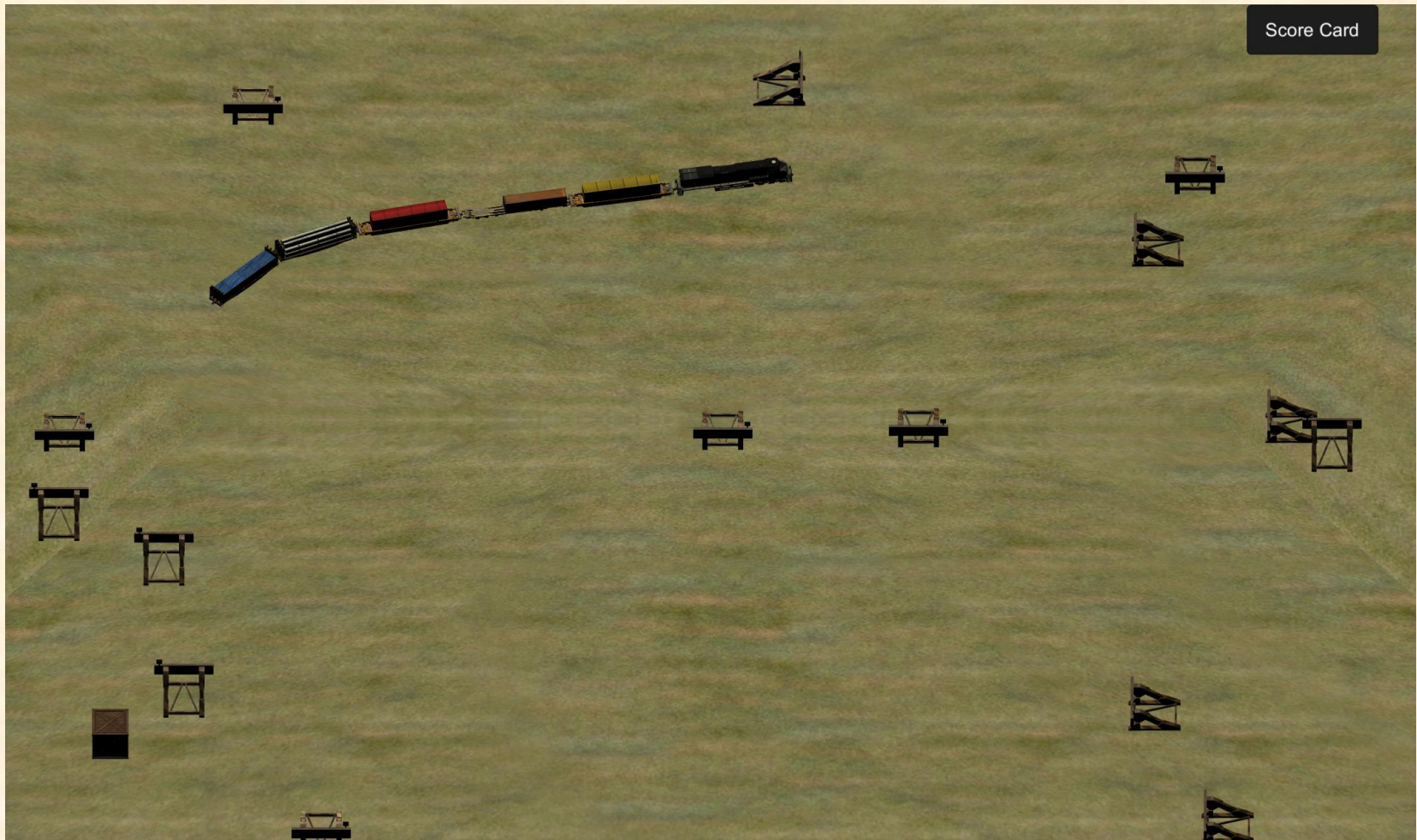
Scenario Description

This is the first level. Move the train from start to finish without driving off the tracks.

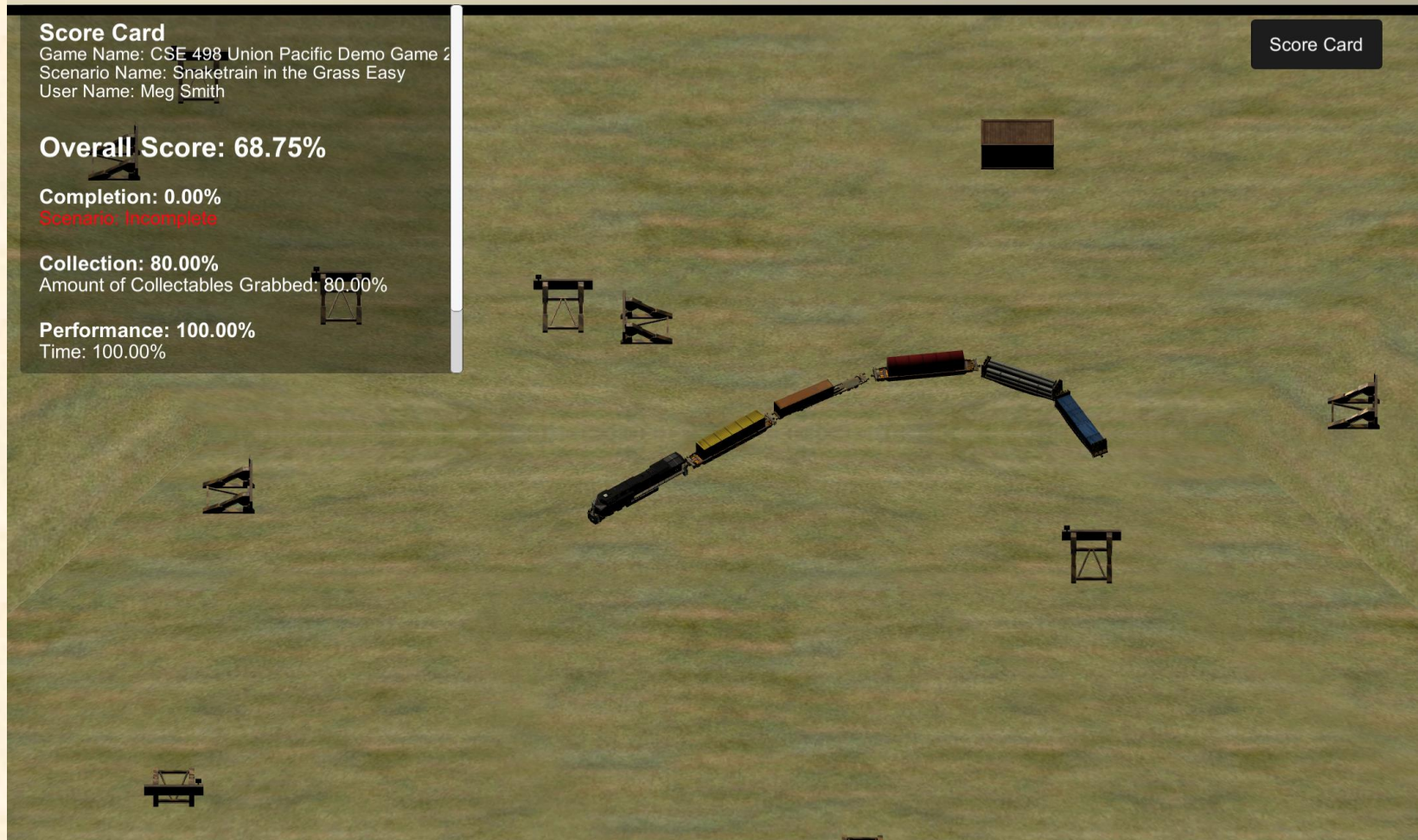
Scorecard Component



Train Snake Sample Game



Snake Game with Live Scoreboard



The image shows a top-down view of a Snake Game. The snake is a long, curved line of various colored segments (black, yellow, orange, red, blue) moving across a green field. Several small, dark, rectangular structures are scattered across the field. A dark grey scoreboard overlay is positioned in the top-left corner, displaying game statistics. A 'Score Card' button is visible in the top-right corner of the game area.

Score Card
Game Name: CSE 498 Union Pacific Demo Game 2
Scenario Name: Snaketrain in the Grass Easy
User Name: Meg Smith

Overall Score: 68.75%

Completion: 0.00%
Scenario: *Incomplete*

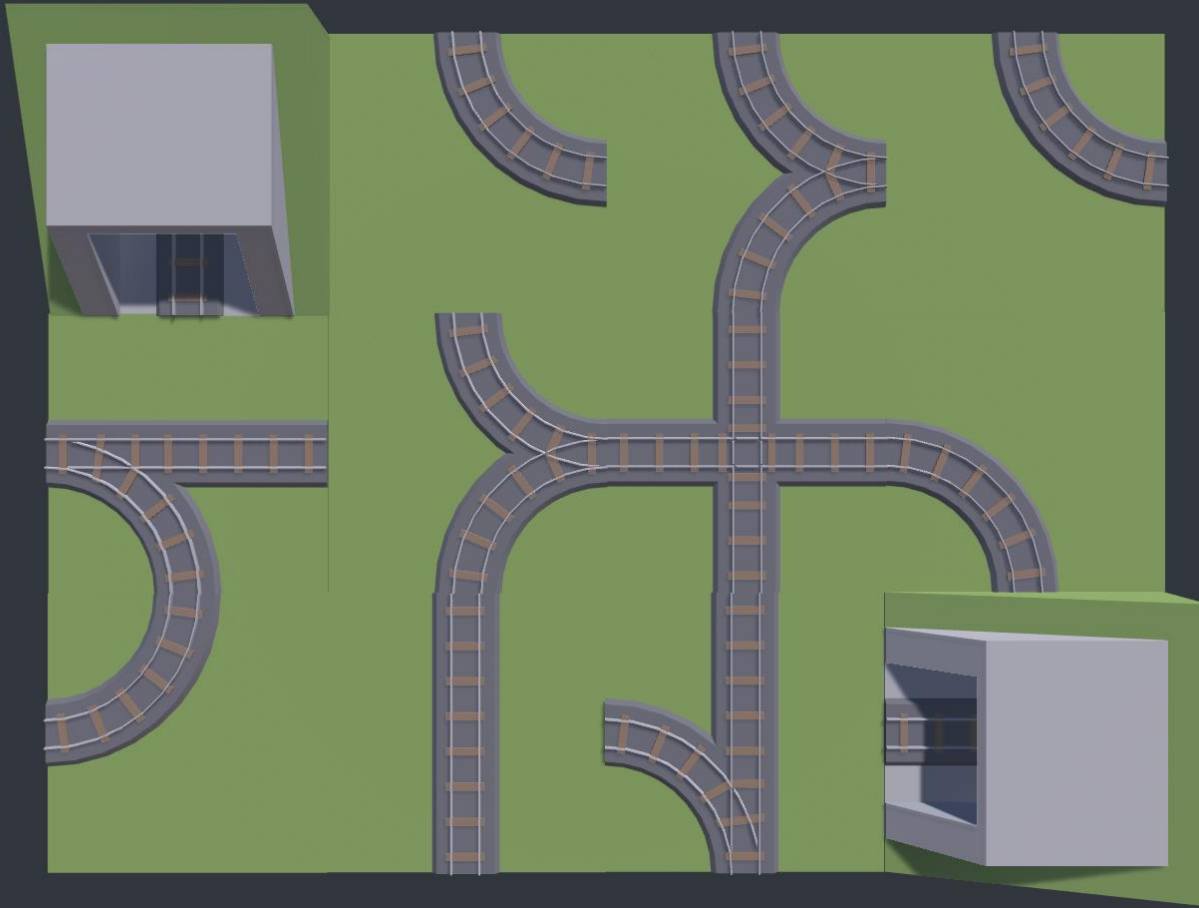
Collection: 80.00%
Amount of Collectables Grabbed: 80.00%

Performance: 100.00%
Time: 100.00%

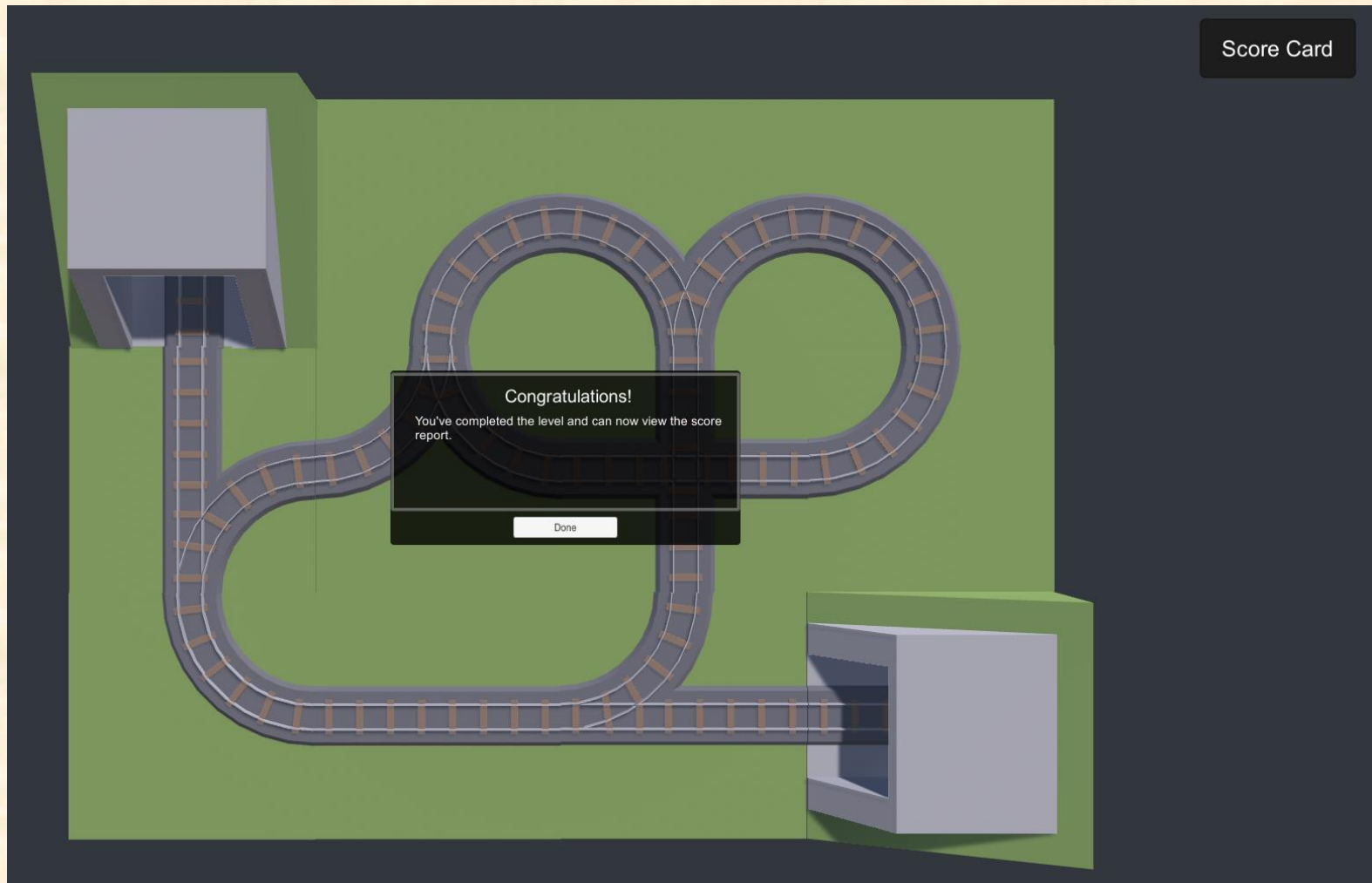


Tile Connect Sample Game

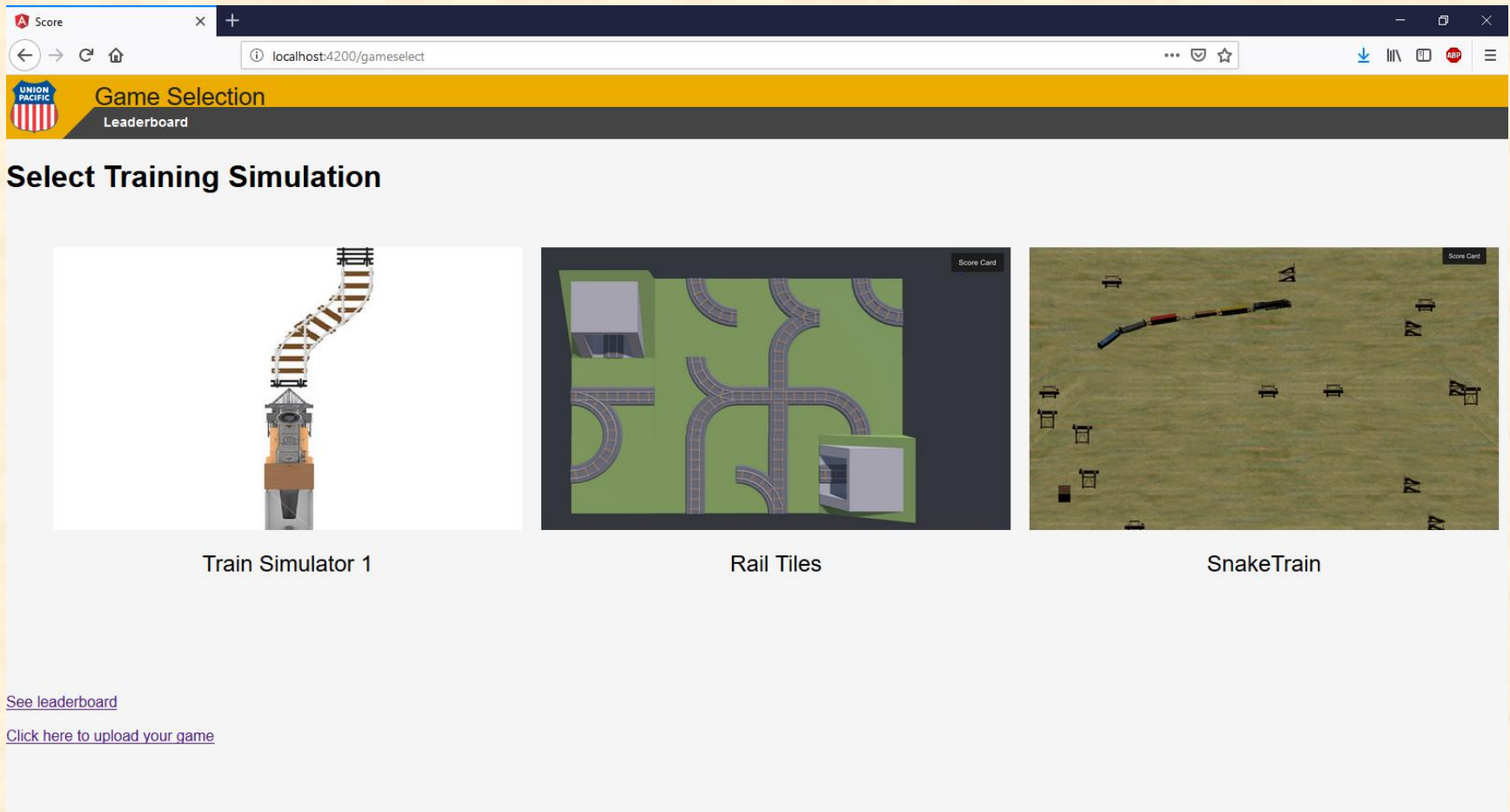
Score Card



Tile Connect Sample Game with Message Box Component



Website Game Selection Page



The screenshot shows a web browser window with the address bar displaying 'localhost:4200/gameselect'. The page has a yellow header with the 'UNION PACIFIC' logo and the text 'Game Selection' and 'Leaderboard'. Below the header is a section titled 'Select Training Simulation'. Three game thumbnails are displayed: 'Train Simulator 1' (a train on a curved track), 'Rail Tiles' (a top-down view of a rail track layout), and 'SnakeTrain' (a train moving on a track with obstacles). Below the thumbnails are two links: 'See leaderboard' and 'Click here to upload your game'.

Score

localhost:4200/gameselect

UNION PACIFIC

Game Selection

Leaderboard

Select Training Simulation

Train Simulator 1

Rail Tiles

SnakeTrain

[See leaderboard](#)

[Click here to upload your game](#)



Website Leaderboard

The screenshot shows a web browser window with the address bar at localhost:4200/leaderboard. The page has a yellow header with the 'UNION PACIFIC' logo and the title 'Leaderboard'. Below the header is a 'Game Selection' section with a checkbox for 'See all players', a search bar containing 'All players', and buttons for 'Search & Save' and 'Clear'. There are three dropdown menus: 'Select simulation: Train Simulator 1', 'Select scenario: Train Simulator - Speed 4', and 'Sort score based on: Overall'. A table displays the leaderboard data with columns for Simulation, Scenario, Player, Completion, Overall, Skill, Speed, Score Details, and Date. At the bottom, there are two links: 'Select training simulations to play' and 'Click here to upload your game'.

Simulation	Scenario	Player	Completion	Overall	Skill	Speed	Score Details	Date
Train Simulator 1	Train Simulator - Speed 4	Admin	100.00%	95.24%	85.71%	100.00%	See details	2/21/19, 5:25 PM
Train Simulator 1	Train Simulator - Speed 4	Admin	100.00%	95.24%	85.71%	100.00%	See details	2/26/19, 12:31 PM
Train Simulator 1	Train Simulator - Speed 4	Xu Huang	100.00%	80.95%	42.84%	100.00%	See details	2/28/19, 1:19 PM

[Select training simulations to play](#)
[Click here to upload your game](#)



What's left to do?

- Update UI elements in first sample game
- Adobe Captivate addition
- Documentation for reusable components & website system
- Optimize/clean up finalized components
- Fix bugs in second game



Questions?

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