

Hello World

PROBLEM

- Lack of tools for younger students to learn programming concepts in a familiar environment

SOLUTION

- Create a video game aimed to teach young students programming concepts in a gaming environment
- Encourage people to learn to program
- Eliminate line between work and play
- Create a world where players can learn through interaction with objects in the environment

DESIGN

- Allow players to modify certain objects in the environment
- Modifications are made by editing pseudocode given to the players
- Focus on programming concepts rather than specific language/syntax
- Variables, Conditional Statements, Loops, Functions

PARTICIPANTS



Matthew Tucker

Student

tuckermr@mail.uc.edu



Professor Gowtham Atluri

Faculty Advisor

atlurigm@ucmail.uc.edu

TECHNOLOGIES

- Created in Unity Game Engine
- Developed using C# Scripts within Visual Studio



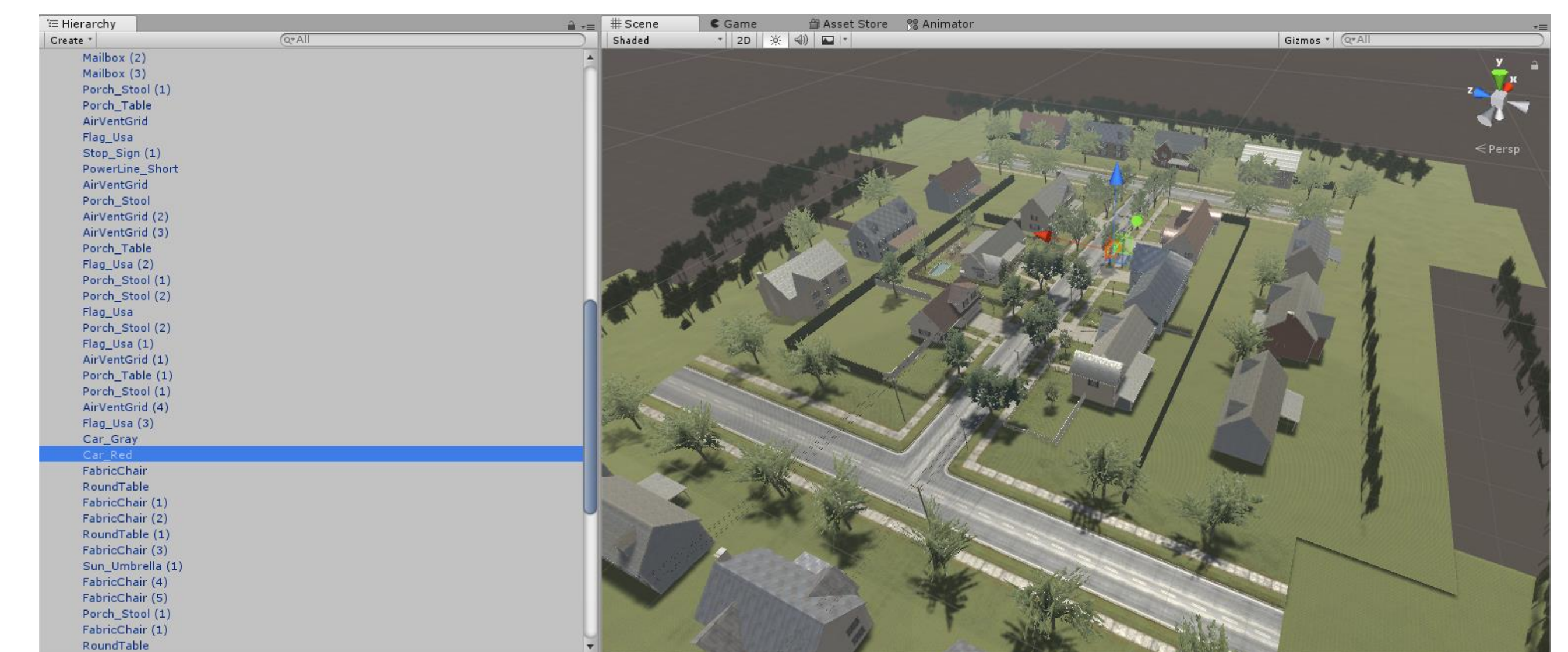
CHALLENGES & ACCOMPLISHMENTS

- Creating a world from scratch
- Defining the process in which players would learn
- Developing the interactions players would have in the environment
- Guiding the player through each individual lesson
- Allowing for player experimentation
- Gained valuable experience in a popular game engine

CONCLUSION

- Functioning game that succeeds in providing players with an interactive and educational environment
- Playtests showed that players gained knowledge of programming concepts taught throughout the game
- Future work needed to create new environments and teach more complex concepts

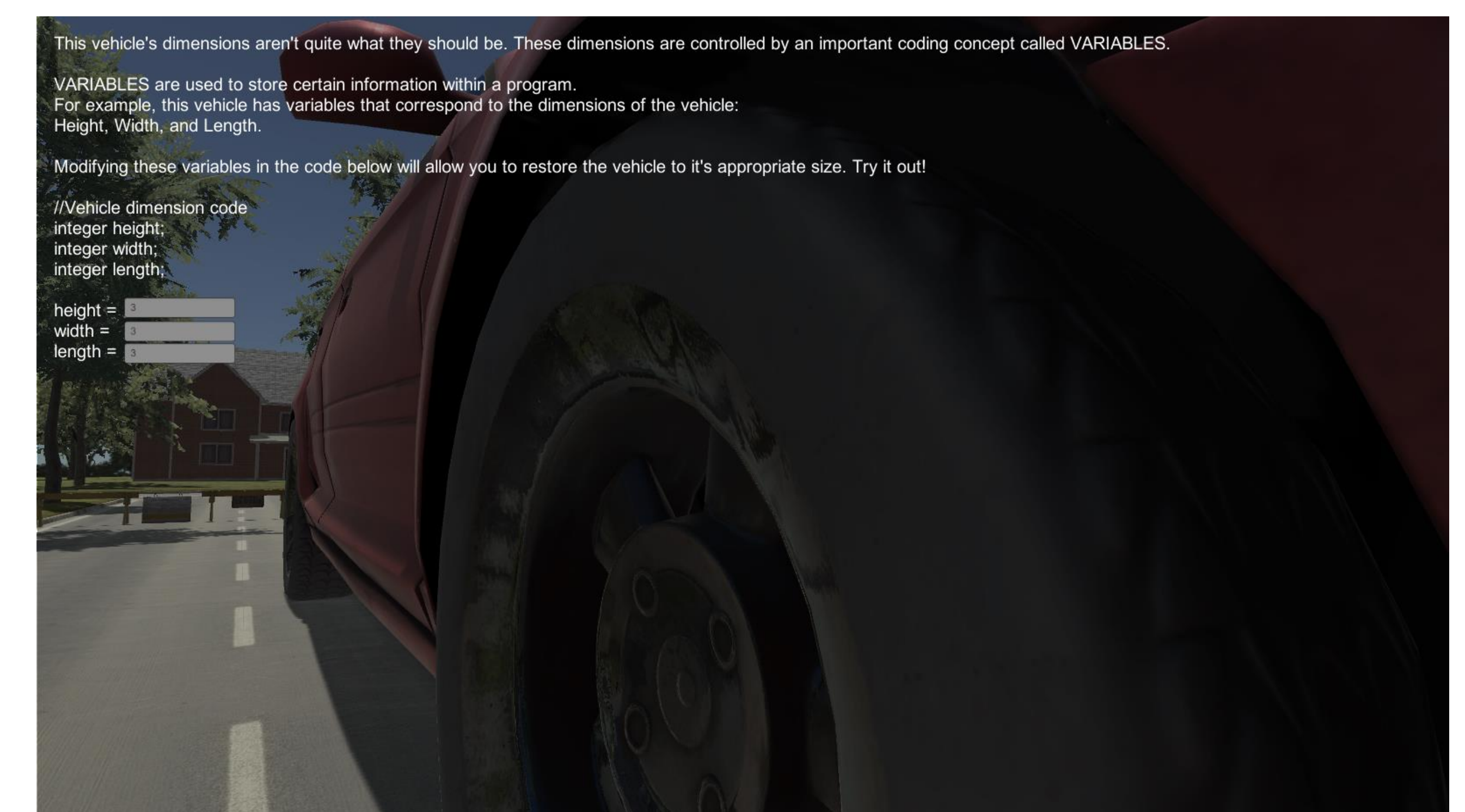
RESULTS



Development screenshot of Unity showing the world that was created



In-game screenshot of player's perspective



In-game screenshot of a lesson on variables