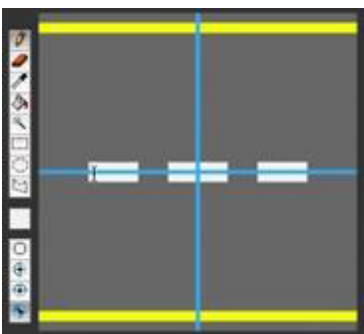


# Computer Village

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## Learning How to Create Frogger Using AgentCubes

### Introduction

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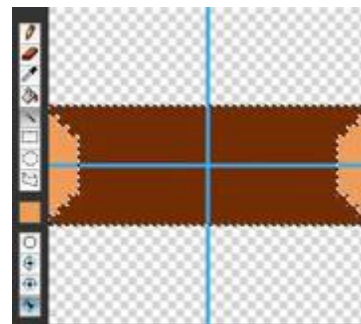
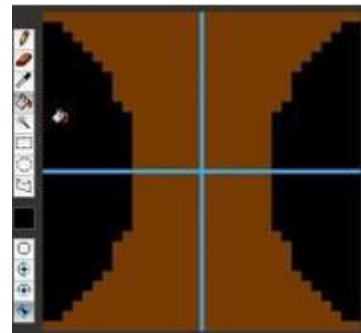
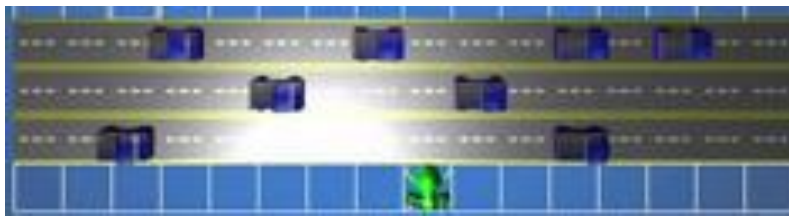
This project is the culmination of Computer Village-St. Louis embracing the coding revolution and 20 plus years of being IT specialists. During our 3 day endeavor we learned how to access the project website, construct the game agents and produce a working example of the game. See the game example by following this link:

<https://agentcubesonline.com/project/57084>

### Step-by-Step

We began the class with the normal pleasantries, introducing ourselves with the different teaching backgrounds and setting the norms for the class. The first day consisted of an evaluation to determine how the students comprehended the operation of different software and the hardware functions of the computer.

We moved to the next phase of describing what were going to learn and had all the students log in to the AgentCubes website.



Using the website we followed the instructional video. Day one process went as follows:

- Installation of AgentCubes
- Video Introduction of AgentCubes
- AgentCubes layout
  - Agent lists
  - Grid
  - Behavior Editor
  - Conditions and Actions Panels
  - Behavior Editor

After familiarizing ourselves with the navigation of the game we began to create our own personalized games. The first thing we saw was how to create your own 3d icons but we opted to use the supplied icon (frog) for time consideration. Some of the basic instructions that are important to remember are to save often and review each completed step in real-time. Each student submitted their game allowing them to work on their game at home. This concluded day one.

## **Day 2**

Today we began with reviewing the answers from the pretest and jumped right into the development of our Frogger game. Our focus was on development of additional icons: roads, cars, tunnels and the behavioral rules for the actions of the icons.

The behavioral aspects dealt with “if” the icon did something, “then” this was the result. Day 2 concluded ended with a basic game.

## **Day 3**

We immediately jumped into our creative mind sets and added following the video added highways, rivers, logs, islands and a higher risk level for success. We showed the students a completed game and to our surprise one of the students had completed a game.

At the conclusion of class the students played the completed games on the first student who won the sample game won a prize. By submitting their games the creators of the game had a downloadable certificate of completion from the University of Boulder Colorado. Each student received a certificate. Attendance was close to perfect for all who attended.

# Certificate of Completion

This certificate is awarded to

for the successful completion of

**Game Design: Level 1**

and demonstrating an understanding of  
the basic concepts of Computer Science.



Professor Dr. Alexander Repenning, Director, Scalable Game Design Project



University of Colorado  
Boulder



AgentSheets  
computational thinking tools