

Aaron Jacobson

Touch Based Ant Simulator

May 12, 2014



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What is it?

This will be an ant simulator with some gameplay aspects for android. The game will feature ants, which while the user cannot directly control, are able to be given tasks such as “dig into the ground here”. The game will have different levels which the user can switch between to build their base. The ants will require food and water to be able to live. There will also be dangers such as spiders, humans, and dogs which the player cannot control. These creatures will be an integral part of the game because they will be a major obstacle that the player must overcome if they want their ants to live. There will also be a “god mode” where the player can do a wide variety of things such as spawning creatures and shaping the terrain to their whim. I will use Java as the programming language and \_\_\_\_\_\_\_ as the IDE.

Why?

The biggest priorities for this project are: to learn how to program for the android platform, to learn how to create artificial intelligence that the player is not able to control. I will also have to learn how to use Graphics in Java.

**More Information:**

In order to complete this project I will have to know how to manage many different classes working at the same time. A large part of the code will be based off of Grid World because the game will be tile based and Grid World is a great foundation for a tile based world. I will also learn how to create and interpret save files for the player so they can save the process they have made.

**Target User:**

The target user for this game is a casual gamer who is willing to spend a little more time on a game in one sitting than they are used to.

Ant Simulator

Major Classes:

Major GUI classes:

Title screen

In game GUI

Options

Task Creation

Major Creatures:

Creature

Human

Animal

Ant

Mole

Anteater

Worm

Snail

Spider

Other:

Water

Plant

Ground

May 12th: Project proposal turned in

May 14th: Lab 12 Case Study Part 4 turned in

May 16th: Lab 13 Ant Farm Project turned in

May 19th: Inheritance Tree created

May 21st: World Class created

May 23rd: Environment Classes created

May 26th: Menus created

May 30th: Ant Class created (including AI)

June 2nd: Spider, Worm, Snail, Mole, Anteater classes created

June 4th: Human and Animal classes created

June 6th: Touch Screen capabilities achieved

June 9th: Game is available for android

June 11th: God mode created

June 13th: Project turned in

Project Plan

Resources:

IntelliJ IDE

Java documentation

Potential Difficulties

Some possible problems when making this game include: not having a good distribution system, touch screen not working properly, and the game being installed on the wrong kind of phone (ie ios as opposed to android)

Technologies

IntelliJ will be used as the IDE

Touch screen will be used

Key listeners

Month Day Year

Testing

I will consider a class finished when all the methods in it have been tested and are working with all the other classes. Once the game is in a state where it can be tested by people who are not involved with the coding I will make it available to a select few who will do further bug-testing. When that group of people reports a problem I will look into it and depending on the severity of the bug I will decide what priority it is and work from there.