

# System Design Document - rev 1.0

## Animal Simulation

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## 1 Introduction

### 1.1 Purpose

The purpose is to create a virtual environment in which these animals live. No external forces such as weather will affect our system.

### 1.2 Design Goals

The rules laid out shall be:

- World is 150 kms square. Carve up the world into a grid of 150/150 (2D environment)
- Animals without wings can travel three kms in a day. (3 grid locations)
- Animals with wings can travel 5kms.
- Insects can travel 1km.
- Everything must eat within two days.
- No reproducing of any kind. Everything will die.
- Print out only what is living at each location.

## 2 Current software architecture

New design

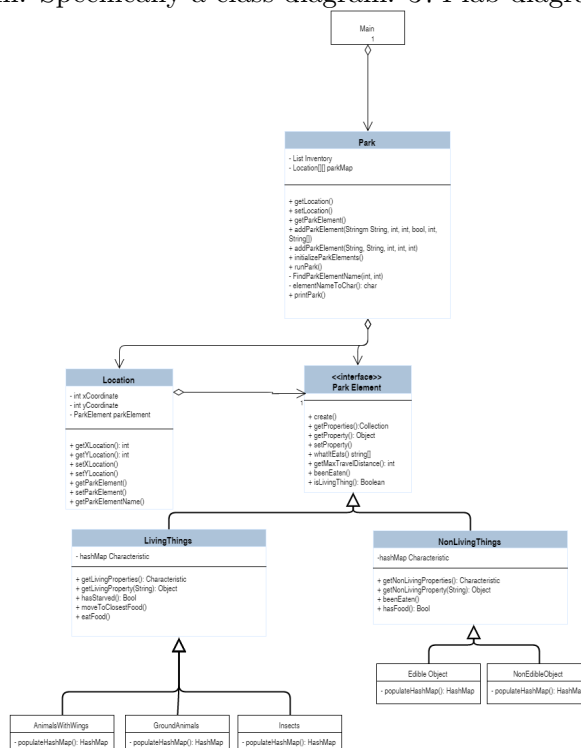
### 3 Proposed software architecture

#### 3.1 Overview

The programming language is Java and the application will run on a personal computer.

#### 3.2 Subsystem decomposition

UML Diagram. Specifically a class diagram. 374 lab diagram.png



#### 3.3 Boundary conditions

When world is created the user shall be allowed to populate the world. If a user inputs far too many items an error shall be received.