

# System design document for Candy Monsters

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This version overrides all previous versions.

## 1. Introduction

### 1.1 Design goals

The design must be testable. The model must not be tied to the controller and view in order to enable the possibility of changing GUI.

### 1.2 Definitions, acronyms, abbreviations

- GUI, graphical user interface.
- Java, platform independent programming language.
- JRE, the Java Runtime Environment. What's needed to run a Java program.
- MVC, a design pattern in which one separates the application code (Model) from the GUI (View) and the Controller.
- Solid ground, everything that the character can't walk, jump or fall through.
- Non-empty space, all things that are not "air", for example solid ground and walls the chosen item, the item that the character is standing near placed on the..., on the image (not on top of the character, target, etc.)
- World, the area of the screen which can be referred as the "game window" (the area where the character is able to move without moving passed walls)
- Wall, included in solid ground

## 2. System design

### 2.1 Overview

The application will use the MVC model.

### 2.2 Software decomposition

#### 2.2.1 General

- model: the model part of MVC

- controller: control classes for the MVC model
- view: view parts of MVC
- utils: conversion methods, I/O

//Package diagram. For each package a UML class diagram in appendix

## 2.2.2 Decomposition into subsystems

### 2.2.3 Layering

See Figure 2 below.

### 2.2.4 Dependency analysis

Dependencies are as shown in the Figure 1 and Figure 2:

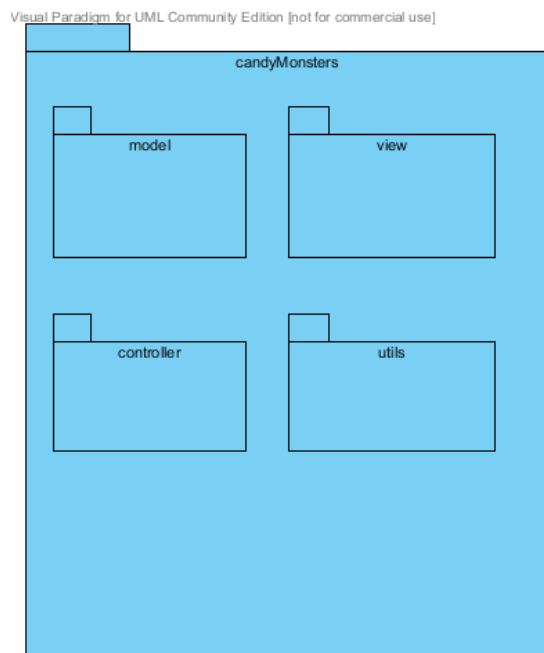


Figure 1: High level design

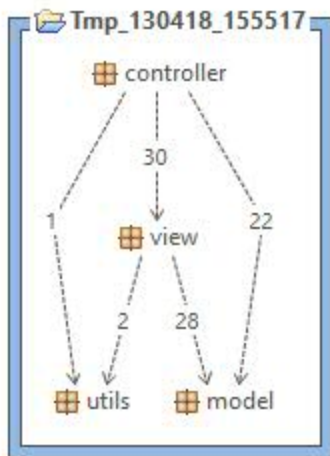


Figure 2: STAN Diagram, Layering & Dependencies analysis

### 2.3 Concurrency issues

### 2.4 Persistent data management

### 2.5 Access control and security

### 2.6 Boundary conditions

## 3. References

MVC, see <http://en.wikipedia.org/wiki/Model%E2%80%93view%E2%80%93controller>

## APPENDIX