C S 324E Progress Report 6.1

Group 13

Alex Chiu, Albert Liang, Amar Vaswani

**Simulation Plan:**

Our plan for our Assignment 6 simulation involves a scene with a ball moving up an elevator and along a platform where various forces affect it until it reaches the exit. Some of the forces include springs, friction (sliding and rolling), gravity, being struck by objects, etc. The whole sequence of events in the scene should take around 5-10 seconds and will loop. This simulation will require the implementation of a ball class, a platform class, and various force actors that will be elaborated upon in the UML diagram below. In terms of interactivity, we plan on including mouse input to introduce obstacles to the scene.

**Current Progress:**

Currently, our simulation includes the ball, the elevator, and one long platform. The ball starts offscreen and moves onto the elevator when the elevator reaches the bottom of the screen. From there, the ball rides up the elevator to the top of the screen, where it then gets off and moves across the long platform to the right. This is where the ball currently stops.

**Necessary Classes:**

Currently we have the Main class and the Ball class. We plan on introducing a Platform class and an Obstacle class for objects that will collide with and affect the ball.

**UML Diagram:**

Graphical user interface

Description automatically generated

**Work Breakdown:**

The following list breaks down the classes/objects each group member is working on:

Alex: Obstacle, Integration

Albert: Ball, Main

Amar: Platform, Main

**Plan Moving Forward:**

Moving forward, we need to incorporate the remaining forces that act on the ball. Gravity already acts on the ball, but we need to include various spring forces along the platform, as well as interactions between the ball and obstacles that appear when the user presses their mouse. Once we integrate all these components, our work will be ready for submission.