INFO6022 - Physics 2

Project #3

Due Date: Sunday, March 11th 2018 11:59PM

This is an individual assignment. One submission is expected per person.

The submitted code must compile in Visual Studio 2015 or 2017. If it does not compile, then the mark assigned will be zero.

# Soft Body Physics

For this project, you will simulate a soft body object using a ball-and-spring model. There will be also be several rigid body objects in the scene that can be controlled by the user to interact with each other, and the soft body.

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|  | Item | Marks |
|  | **MUST HAVES: ( Just do it, or you get zero ☹ )**  **Project 1:** With one difference: There’s a soft body in there! |  |
| !! | **Up to -5 marks for ugly code!!!** …. So What is ugly code?   * Bad or inconsistent formatting, indenting, and spacing. * Poor naming choices. Eg. “param5” “temp3” “MyClass” “v1, v2, v3, v4, v5, v6” names should be *accurately* descriptive. * No comments. * Inaccurate comments. |  |
| 1 | You have a soft body object in your scene that is simulated with a ball-and-spring model. This soft body can be interacted with by taking control of one of your rigid bodies and driving into it.  This soft body can be a cloth that’s pinned in place by restricting 2 or more of the nodes. It can also be a mesh that you’ve loaded, using the vertices as nodes and edges as springs.  Your soft body MUST be positioned such that it can be interacted with. | 20 |
| 2 | **BONUS:** There are two rendering options for your soft body object that can be toggled between using some hot key.   1. Each node is seen a sphere. 2. The soft body is rendered as a mesh, with the vertices being dynamically updated each frame. | 5 |
|  | TOTAL: | 20 + 5 |