Project Title: 4D World

Group Members:
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Goals: Create a 4 (spacial) dimensional world that a player can move around in and interact with objects in 4D in 'real time'.

Motivation: A 4D world is something very simple, but is hard to imagine and is more complex to simulate then a 3D world.

Technical Challenges:

1) The step from 3 to 4 D is the same multiple as the growth from 2 to 3 D. We need to simulate a 4D world and keep the work load manageable for 'real time' exploration.
2) We are used to experiencing a 3D world in 2D. We need to express the 4D world on a 2D screen in a way the user can understand it. (This will inevitably impose limits on the controls.)
3) We will need to define the 4D world to be simulated, and integrate in how objects act across the 4'th dimension.

Milestone 1 (Feb 20): itemized tasks:

- Investigate and select tools/packages/data format/hardware/... to be used;
- Finalize best way to move in 4D space.
- Start making first world.

Milestone 2 (Mar 20): itemized tasks:

- Basic phase shift mechanics implemented
- Find how to integrate a physics engine with the world

Milestone 3 (Apr 17): itemized tasks:

- Implement interactions with 4D objects. (like pushing in the 4'th D)
- Finish 4D visual aid

Task matrix for Milestone 1

Task	Briot	Cameron	Culp
Investigate/Select Tools	1/3	1/3	1/3
Requirement Document	write 25%	write 25%	write 50%
Design Document	write 15%	write 15%	write 70%%
Option Documentation	1/3	1/3	1/3

Approval from Faculty Sponsor

- "I have discussed with the team and approve this project plan. I will evaluate the progress and assign a grade for each of the three milestones."
- Signature: _____ Date: _____