Capital College Visual Science 2/14/2020 CMPSC 488

Development Plan

Month	Day	Development Plan	Test and Demonstration Plan								
February	3										
	10	Application Window (Framework)	User can open and compile								
	17		 Tests for basic gravitational simulation code Some example inspection mode text Some basic low-level graphics code for celestial rendering Early UI prototype example components 								
	24	Inspection Mode TextGravitational Simulation	 Complete inspection mode text Gravitational simulation graphical demo with n-bodies without additional kinematics (like angular momentum, collisions) 								
March	2		 Complete UI prototype for Menu Bar Procedural spherical planet generation algorithm Demo of kinematics simulation with rotations and angular momentum Stellar models example descriptions 								
	9	Menu Bar Inspection Mode Controller	 Complete UI demo of menu bar and utility options Tests for Inspection Mode physical features detection algorithms 								
	16	 Physical Properties Dialog Input Controller 3D Celestial Rendering Stellar Models Description 	 User can create moons and other natural satellites User can change orbits and rotations of celestial bodies User can use camera and movement controls to view the simulation User can see a 3D render of their celestial model User can edit physical properties of the celestial body 								
	23	Celestial Bodies DialogKinematics Simulation	User can view their celestial body with different inspection modes								

	30	Inspection Mode Dialog	Users can inspect physical phenomena in detail directly from the simulation
April	6	 N-body Rendering Collision FX Thermodynamics Simulation Stellar Models Dialog 	 User can see and hear the effects of celestial objects colliding User can read about their chosen stellar model User can view the effects of thermodynamics
	13		
	20	 Atmospherics Simulation Atmospherics Rendering Lighting and Stellar Effects Save/Load Controller 	 User can save their project User can view lighting changes User can view the atmosphere of their celestial body
	27	Electromagnetism SimulationStatus Bar	User can view the effects of electromagnetism on their celestial body
May	4	Electromagnetism RenderingInspection Overlay	

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Gantt Chart

	Feb				Mar					Apr				May
	3	10	17	24	2	9	16	23	30	6	13	20	27	4
Application Window (Fery)														
Inspection Mode Text (Fery)														
Gravitational Simulation (Matthew)														
Menu Bar (Foram, Fery, Dominique)														
Side Panel (Foram, Fery, Dominique)														
Stellar Models Descriptions (Fery)														
3D Celestial Rendering (Danny)														
Kinematics Simulation (Matthew)														
Input Controller (Dominique)														
N-body Rendering (Danny)														
Collision FX (Danny, Dominique)														
Thermodynamics Simulation (Matthew)														
Inspection Mode Controller (Matthew)														

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Atmospherics Simulation (Matthew)								
Atmospherics Rendering (Danny)								
Save/Load Controller (Fery)								
Electromagnetism Simulation (Matthew)								
Electromagnetism Rendering (Danny, Matthew)								
Inspection Overlays (Danny, Matthew)								

Legend:

- Core Features
- UI/UX
- Simulation & Physics
- Graphics & Art