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 Text ● Gravitational 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 Dialog ● Kinematics 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 Simulation • Status Bar	• User can view the effects of electromagnetism on their celestial body
May	4	• Electromagnetism Rendering • Inspection 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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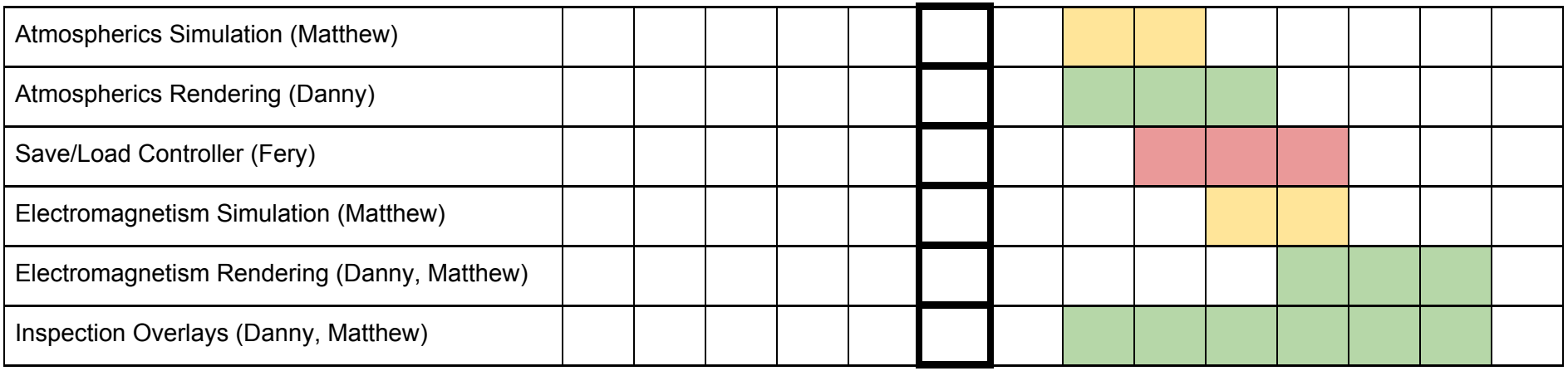

Legend:

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