

Total Hours per Week by Type of Activity

Week	Start	End	Supervisor discussion	Team discussion	Design	Coding	Documentation	Testing, debugging	Research, training, learning	Other	Total hours for the week
1	1/26	2/1	0.0	0.0	0.0	0.0	5.8	0.0	4.0	7.1	16.9
2	2/2	2/8	0.0	0.0	0.0	0.5	8.8	0.0	6.7	0.0	16.0
3	2/9	2/15	2.0	0.0	0.0	0.0	5.0	0.0	16.3	0.0	23.3
4	2/16	2/22	0.0	0.0	0.0	15.1	2.5	0.0	6.5	0.0	24.1
5	2/23	3/1	0.0	0.0	4.5	5.7	4.0	0.0	1.5	1.0	16.7
6	3/2	3/8	0.0	0.0	0.5	0.0	2.5	0.0	12.7	0.5	16.2
7	3/9	3/15	0.0	0.0	0.0	0.0	0.5	0.0	25.6	1.0	27.1
8	3/16	3/22	0.5	0.0	0.0	0.0	1.0	0.0	13.8	0.0	15.3
9	3/23	3/29	2.0	0.0	0.0	0.0	8.3	0.0	19.3	0.5	30.1
10	3/30	4/5	0.0	0.0	0.0	0.0	0.5	0.0	18.8	1.5	20.8
11	4/6	4/12	0.0	0.0	0.0	2.0	2.3	0.0	11.0	0.5	15.8
12	4/13	4/19	0.0	0.0	0.8	2.0	8.5	1.0	0.5	0.5	13.3
13	4/20	4/26	0.0	0.0	1.0	13.3	0.6	3.0	0.5	0.0	18.4
14	4/27	5/3	0.0	0.0	5.3	32.5	0.5	5.6	0.0	0.0	43.9
15	5/4	5/10	2.0	0.0	14.8	13.0	5.0	7.0	0.0	0.0	41.8
16	5/11	5/17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Semester Total			6.5	0.0	26.9	84.1	55.8	16.6	137.2	12.6	339.7

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Sun 1/26/25	4:00 PM	5:30 PM	1.5	Other	Reviewed course materials and communications on Blackboard & updated my calendar app with course calendar	Set up Fastmail so Blackboard notifications are not filtered as spam	
Sun 1/26/25	6:00 PM	9:00 PM	3.0	Other	Started filling out intake survey, preparing resume, and reviewing project proposal requirements	Finish intake survey and continue working on project proposal	
Mon 1/27/25	5:00 PM	7:05 PM	2.1	Other	Attended orientation & took quiz		
Wed 1/29/25	5:00 PM	7:00 PM	2.0	Documentation	Brainstormed ideas for project proposal. Talked to supervisor over text messages.	Design a project that meets course requirements & that I want to work on	Project needs to be complex enough, and ideally would solve a real-world need.
Wed 1/29/25	11:00 PM	11:30 PM	0.5	Documentation	Looked into timelog template and examples to determine what it needs to do		
Thu 1/30/25	12:30 AM	2:00 AM	1.5	Documentation	Adapted timelog template for my own needs		Added start and end times so it can calculate hours, and changed formatting.
Thu 1/30/25	3:30 AM	5:00 AM	1.5	Documentation	Filled out and submitted intake survey. Uploaded resume and saved as draft. Worked on project proposal.	Upload first timelog when it is done. Work on refining project proposal.	I have a supervisor but the project proposal is still very nebulous.
Thu 1/30/25	6:40 AM	8:40 AM	2.0	Research, training, learning	Research into project proposals and games that could be used as inspiration.		Could go back to ideas for projects I've been wanting to do going years back.
Fri 1/31/25			0.5	Other	Download and install Unity, Adobe CC, Maya, and other software that might be used for project.		
Fri 1/31/25	9:00 AM	11:00 AM	2.0	Research, training, learning	Research into game engines, physics, procedural generation, and other game-related topics	Pick a game engine & decide which area to focus on for differentiating this project from others	Orbital mechanics simulator suggested by ChatGPT seems like the best idea
Sat 2/1/25			0.3	Documentation	Write out reflections on time spent and submit time logs along with resume		
Wed 2/5/25	10:00 PM	11:59 PM	2.0	Research, training, learning	Researched terms and concepts used in project proposal survey		
Thu 2/6/25	12:01 AM	4:00 AM	4.0	Documentation	Updated project proposal & filled out related survey. Created GitHub Project issue tracker.		
Thu 2/6/25	5:30 AM	6:00 AM	0.5	Coding	Created & set up GitHub repo for the project		
Thu 2/6/25	6:00 AM	7:00 AM	1.0	Research, training, learning	Researched workflow & project management software involving Unity, Git, and Github	Go through Unity 3D tutorials	
Fri 2/7/25	1:50 PM	3:50 PM	2.0	Documentation	Further updated project proposal and survey		
Sat 2/8/25	12:01 AM	2:30 AM	2.5	Documentation	Completed and submitted project proposal and survey	Work out project schedule and scope	
Sat 2/8/25	11:20 AM	3:00 PM	3.7	Research, training, learning	Completed a Unity Beginning 3D Game Development tutorial	Continue with 3D tutorials	
Sat 2/8/25			0.3	Documentation	Worked on time logs and writing reflections		
Sun 2/9/25	12:01 AM	3:00 AM	3.0	Research, training, learning	Worked on another Unity 3D tutorial		
Mon 2/10/25	12:01 PM	2:00 PM	2.0	Supervisor discussion	Meeting with supervisor		
Wed 2/12/25	10:30 AM	11:30 AM	1.0	Research, training, learning	Research for Diagrams deliverables & GitHub Projects		
Wed 2/12/25	12:01 PM	2:00 PM	2.0	Documentation	Work on Diagrams slide deck		
Wed 2/12/25	2:00 PM	4:00 PM	2.0	Research, training, learning	Work through Unity 3D tutorials		
Thu 2/13/25	12:15 AM	1:30 AM	1.3	Research, training, learning	Work through Unity 3D tutorials	Tutorials are too basic or have irrelevant info for my project.	Will probably have to figure it out on my own with Google searches.
Thu 2/13/25	3:15 PM	4:45 PM	1.5	Documentation	Work on diagrams	Start sketching out UI next	

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Fri 2/14/25	7:00 AM	8:00 AM	1.0	Documentation	Submit project tools survey. Create changelog and readme docs.		
Fri 2/14/25	10:30 AM	3:30 PM	5.0	Research, training, learning	Work through Unity Essentials tutorials		
Sat 2/15/25	7:00 AM	11:00 AM	4.0	Research, training, learning	Work through Unity Essentials tutorials		
Sat 2/15/25			0.5	Documentation	Update and reformat timelogs. Write reflections.		
Tue 2/18/25	1:50 PM	2:50 PM	1.0	Research, training, learning	Research on how to do various things in Unity, such Git LFS usage, floating origin, 64-bit precision, and custom models		
Wed 2/19/25	3:45 AM	5:30 AM	1.8	Coding	Create new project in Unity, set it up for Git, and check in to repo	Had to configure GitHub Desktop on Windows for long filenames & CRLF conversion	After doing some research, I think it would be better to use URP instead of HDRP, and to consistently use LF for line endings even on Windows.
Wed 2/19/25	8:30 AM	1:00 PM	4.5	Coding	Work on creating a solar system in Unity project. Convert to URP & set line endings to be LF. Delete old repo and start afresh with a new repo in order to stay within LFS limits.	Challenges: Solar system distances with 32-bit floats in Unity engine; Understanding how Git LFS works	Due to configuration issues, many large files were checked in to git. To undo this mistake, the old repo was deleted and a new one created in its place.
Wed 2/19/25			1.0	Documentation	Migrate issues to new project and add more tasks to do. Take screenshots of GitHub repo and project for slide deck.	Challenge was understanding how GitHub Projects work.	I created a new project in GitHub but I didn't need to. Now the URL needs to be updated.
Wed 2/19/25	9:00 PM	10:30 PM	1.5	Research, training, learning	Research how to add 2D and UI elements to a 3D scene	Challenges: finding the best practices for adding UI elements. I can think of many ways to do this, but what is the best way?	
Thu 2/20/25	12:30 PM	4:00 PM	3.5	Research, training, learning	Research orbital mechanics, Keplerian elements, and planetary data.	I found several sources of data with varying levels of precision and slightly different values. Challenge is deciding which to use and what level of precision is needed.	
Thu 2/20/25	9:00 PM	11:30 PM	2.5	Coding	Work on rendering orbit lines & camera control.	Challenge: getting used to how Unity scripting works	
Fri 2/21/25	2:15 PM	5:45 PM	3.5	Coding	Work on camera controls		
Fri 2/21/25	9:30 PM	10:00 PM	0.5	Research, training, learning	Research coordinate systems		Tricky part is when I need to apply rotations in 3d space so that the orbits have the proper shape and inclination
Fri 2/21/25	10:00 PM	10:30 PM	0.5	Documentation	Manage items in issue tracker		
Sat 2/22/25	10:00 AM	11:00 AM	1.0	Coding	Work on ability to change the camera's target		Half of coding time is looking up how to do things and could be categorized as research.
Sat 2/22/25	3:00 PM	4:45 PM	1.8	Coding	More work on camera control	Next steps: work on UI	
Sat 2/22/25			1.0	Documentation	Managing issues and recording time spent on tasks. Update diagrams slide deck & timelog.		Managing the project takes time away from research and coding, but it does help in prioritizing tasks and keeping on track towards a goal.
Tue 2/25/25	6:30 PM	9:00 PM	2.5	Design	Brainstormed concepts for UI and made paper sketches		UI will evolve as feature set is developed
Wed 2/26/25			0.5	Other	Scheduled live presentation and reviewed what I need for it		
Thu 2/27/25	12:30 PM	2:30 PM	2.0	Design	Updated and fleshed out design for MVP.	Did not find any good free assets for spaceship, so I'll create my own in Maya.	I have a Google Doc where I write down my thoughts on the project as they come to me which helps me plan what I want to do next.

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Thu 2/27/25			1.0	Documentation	Updated issue tracker. Reviewed what needs to be done and planned out what I want to work on next.	Reserve a few hours to create the demo video	
Thu 2/27/25	8:15 PM	9:45 PM	1.5	Research, training, learning	Researched best practices for creating UI in Unity, comparing Unity UI vs. newer UI Toolkit.		
Thu 2/27/25			0.5	Other	Rescheduled live presentation and reviewed its requirements again.	It's really confusing that there are two instructors with two different pages for scheduling this	
Thu 2/27/25	9:45 PM	11:59 PM	2.2	Coding	Added basic UI to show camera position parameters.	Work on icons to represent planets when distance is far	
Fri 2/28/25	12:01 AM	1:30 AM	1.5	Coding	Added icons that show planet position when camera distance is too far to show planet itself		
Fri 2/28/25	2:00 PM	4:00 PM	2.0	Coding	Updated planet icons including its script and color coding. Reorganized GameObject hierarchy. Added orbits and icons for outer planets.		
Fri 2/28/25			0.5	Documentation	Created spreadsheet to keep track of color coding of planets and decided on more colors		
Fri 2/28/25	5:15 PM	7:15 PM	2.0	Documentation	Created video showing project progress.		
Sat 3/1/25			0.5	Documentation	Updated timelogs and submitted them along with demo video		
Mon 3/3/25	4:45 PM	5:15 PM	0.5	Other	Reviewed next steps and next deliverables. Checked that this week's deliverables have been submitted.		
Wed 3/5/25	2:30 AM	3:30 AM	1.0	Documentation	Updated issue tracker and project journal. Researched space news.		With space activity focused on going to the Moon, maybe my project should focus on Earth-to-Moon missions?
Fri 3/7/25	1:00 AM	2:00 AM	1.0	Documentation	Updated project journal with potential project direction.		Need to have more concrete goals and plans for the project to proceed further
Fri 3/7/25	2:15 PM	2:45 PM	0.5	Design	Sketched a new screen flow diagram.		
Fri 3/7/25	2:45 PM	6:45 PM	4.0	Research, training, learning	Completed Unity tutorial on UI Components and Welcome to Creative Core Pathway. Researched Intuitive Machines lander.		I'm finding myself stuck in Unity because I don't know how create what I envision in my sketches
Fri 3/7/25	6:45 PM	9:15 PM	2.5	Research, training, learning	Completed Unity tutorials in Creative Core Pathway up to Copyrights.		
Fri 3/7/25	10:15 PM	11:59 PM	1.7	Research, training, learning	Completed up to "Critical Evaluation" tutorial in Unity Creative Core.		
Sat 3/8/25	2:45 AM	3:45 AM	1.0	Research, training, learning	Completed first section of "Shaders & Materials" tutorial in Unity Creative Core.		
Sat 3/8/25	7:15 AM	9:15 AM	2.0	Research, training, learning	Completed "Map materials with textures" tutorial in Unity Creative Core.		
Sat 3/8/25	8:30 PM	10:00 PM	1.5	Research, training, learning	Completed "Bump mapping" tutorial in Unity Creative Core.	Challenge: getting a long block of uninterrupted time to work on project	
Sat 3/8/25			0.5	Documentation	Updated timelogs		
Sun 3/9/25	12:01 AM	2:00 AM	2.0	Research, training, learning	Completed "more texture mapping" tutorial in Unity Creative Core.		
Sun 3/9/25	4:30 AM	6:00 AM	1.5	Research, training, learning	Completed "Shader Graph" tutorial in Unity Creative Core.		
Sun 3/9/25	10:45 AM	12:45 PM	2.0	Research, training, learning	Completed "still life" tutorial in Unity Creative Core.		

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Sun 3/9/25	8:00 PM	9:30 PM	1.5	Research, training, learning	Completed all sections of "Shaders & Materials" tutorial in Unity Creative Core.		
Mon 3/10/25	1:00 AM	1:30 AM	0.5	Research, training, learning	Completed "Get started with lighting" tutorial in Unity Creative Core.		
Mon 3/10/25	6:00 AM	8:15 AM	2.3	Research, training, learning	Completed tutorials up to "Configure shadows in your scene" in Unity Creative Core.		The section on lighting is much longer than the one for shaders and materials
Mon 3/10/25	2:30 PM	3:30 PM	1.0	Research, training, learning	Completed "Bake a lightmap" tutorial in Unity Creative Core.		
Mon 3/10/25	9:00 PM	9:45 PM	0.8	Research, training, learning	Completed "Light probes" tutorial in Unity Creative Core.		
Tue 3/11/25	3:00 AM	6:30 AM	3.5	Research, training, learning	Completed tutorials up to "Improve reflections" in Unity Creative Core.		
Wed 3/12/25	3:30 AM	5:00 AM	1.5	Research, training, learning	Completed tutorials in "Creative Core: Lighting"		
Thu 3/13/25	12:30 AM	1:30 AM	1.0	Research, training, learning	Worked on lighting on guided project in Unity & completed lighting quiz		
Thu 3/13/25	5:30 AM	7:30 AM	2.0	Research, training, learning	Completed first 3 sections of Animation tutorial in Unity Creative Core		
Thu 3/13/25	9:30 AM	10:30 AM	1.0	Research, training, learning	Completed next 2 sections of Animation tutorial in Unity Creative Core		
Thu 3/13/25	1:30 PM	2:00 PM	0.5	Other	Prepared for live presentation		
Thu 3/13/25	2:00 PM	2:30 PM	0.5	Other	Gave live presentation over Zoom to instructors		
Fri 3/14/25	5:45 AM	7:45 AM	2.0	Research, training, learning	Completed last 2 sections and quiz of Animation tutorial in Unity Creative Core		
Fri 3/14/25	11:30 AM	12:30 PM	1.0	Research, training, learning	Completed first 3 sections of VFX tutorial in Unity Creative Core		
Sat 3/15/25	8:30 AM	10:30 AM	2.0	Research, training, learning	Completed last 4 sections and quiz of VFX tutorial in Unity Creative Core		
Sat 3/15/25			0.5	Documentation	Updated timelogs & submitted supervisor interim report		
Mon 3/17/25	7:30 AM	10:30 AM	3.0	Research, training, learning	Completed Camera tutorial and first 2 sections of Post-Processing tutorial in Unity Creative Core		
Mon 3/17/25	3:00 PM	4:45 PM	1.8	Research, training, learning	Completed all sections of Post-Processing tutorial in Unity Creative Core		
Mon 3/17/25			0.5	Supervisor discussion	Emailed and coordinated with supervisor		
Tue 3/18/25	2:00 AM	3:00 AM	1.0	Research, training, learning	Completed 2 sections of Audio tutorial in Unity Creative Core		
Wed 3/19/25	6:30 AM	7:30 AM	1.0	Research, training, learning	Completed 2 sections of Audio tutorial in Unity Creative Core		
Wed 3/19/25	9:00 AM	11:59 AM	3.0	Research, training, learning	Completed all sections of Audio tutorial in Unity Creative Core & 3 sections of UI tutorial.		
Thu 3/20/25	8:30 AM	11:30 AM	3.0	Research, training, learning	Completed 6 sections of UI tutorial in Unity Creative Core		
Fri 3/21/25	7:30 PM	8:30 PM	1.0	Research, training, learning	Completed 2 sections of Prototyping tutorial in Unity Creative Core		
Sat 3/22/25	10:00 AM	10:30 AM	0.5	Documentation	Created a prototype design document		
Sat 3/22/25			0.5	Documentation	Updated timelogs		

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Sun 3/23/25	8:00 AM	11:00 AM	3.0	Research, training, learning	Completed 5 sections of Prototyping tutorial in Unity Creative Core		
Sun 3/23/25	1:15 PM	4:30 PM	3.3	Research, training, learning	Completed remainder of Prototyping tutorial in Unity Creative Core. Going back and finishing up skipped sections of tutorials.		
Mon 3/24/25	12:01 PM	2:00 PM	2.0	Supervisor discussion	Met with supervisor		
Mon 3/24/25	2:30 PM	3:00 PM	0.5	Other	Reviewed deliverables for next week		
Wed 3/26/25	11:15 AM	1:00 PM	1.8	Documentation	Collected images and did research for slide deck	Plan is to explain some of the challenges I faced up to this point in the project	
Wed 3/26/25	2:15 PM	3:15 PM	1.0	Documentation	Collected more images for slide deck		
Wed 3/26/25	6:00 PM	8:00 PM	2.0	Documentation	Took screenshots of project and collected more images for slide deck		
Wed 3/26/25	9:00 PM	11:59 PM	3.0	Documentation	Made outline for new version of slide deck. Reworked slide deck to have a narrative		
Thu 3/27/25	10:45 AM	2:45 PM	4.0	Research, training, learning	Completed first 6 sections of Junior Programmer pathway in Unity		
Thu 3/27/25	4:15 PM	7:15 PM	3.0	Research, training, learning	Completed 1st Mission of Junior Programmer pathway in Unity		
Thu 3/27/25	10:30 PM	11:30 PM	1.0	Research, training, learning	Completed 1st section of 2nd mission of Junior Programmer pathway in Unity		
Fri 3/28/25	3:15 PM	6:15 PM	3.0	Research, training, learning	Completed tutorials up to Challenge 2 of Basic Gameplay mission of Junior Programmer pathway		Most of this content is stuff I already know, but I am scouring them to make sure I don't miss anything. I have found at least one tip that I can use in my project so far. And understanding how programming is supposed to be done is important.
Sat 3/29/25	1:00 PM	3:00 PM	2.0	Research, training, learning	Completed 2 quizzes in Junior Programmer pathway. Started Unit 3.		
Sun 3/30/25	12:01 AM	2:00 AM	2.0	Research, training, learning	Completed 2 labs & 2 sections in Unit 3 of Junior Programmer pathway.		
Sun 3/30/25			0.5	Documentation	Updated timelogs & submitted slides		
Sun 3/30/25	5:30 PM	7:30 PM	2.0	Research, training, learning	Completed up to Lesson 3.4 in Unit 3 of Junior Programmer pathway.		
Mon 3/31/25			2.0	Research, training, learning	Completed remainder of Unit 3 of Junior Programmer pathway.		
Wed 4/2/25	5:45 PM	6:45 PM	1.0	Other	Reviewed schedule, documentation, progress, and next steps. Planned for Demo 2 video.		
Thu 4/3/25	12:45 AM	2:30 AM	1.8	Research, training, learning	Completed up to Lesson 4.2 of Junior Programmer pathway		
Thu 4/3/25	1:15 PM	2:45 PM	1.5	Research, training, learning	Completed up to Lesson 4.4 of Junior Programmer pathway		
Thu 4/3/25	9:00 PM	11:59 PM	3.0	Research, training, learning	Completed Unit 4 of Junior Programmer pathway		
Fri 4/4/25	10:00 AM	1:00 PM	3.0	Research, training, learning	Completed up to Lesson 5.2 of Junior Programmer pathway	Had a roadblock with the tutorial UI input not working. Turns out it was Unity's new Input System.	I had to figure out how to solve this issue on my own, because the tutorials assume you are using the old Input System

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Fri 4/4/25			0.5	Other	Planned out what to record for Demo 2 video	Write a script, plan for what to record, and do a few takes of the recording to get it right	
Fri 4/4/25	6:15 PM	7:15 PM	1.0	Research, training, learning	Completed up to Lesson 5.3 of Junior Programmer pathway		
Fri 4/4/25	8:45 PM	11:15 PM	2.5	Research, training, learning	Completed up to Quiz 5 of Junior Programmer pathway		
Sat 3/29/25			0.5	Documentation	Updated timelogs		
Sun 4/6/25	2:30 PM	4:15 PM	1.8	Documentation	Wrote, revised, recorded, and edited Demo 2 video, including using OBS, Unity, Google Slides, and Adobe Premiere	Challenge: preparation for the video takes a lot of time and then it has to be edited	Demo 2 Video
Mon 4/7/25	4:45 PM	5:15 PM	0.5	Other	Reviewed requirements for the final project presentation and video that were posted today	Will need to plan out how much time to spend on project itself, the slides, and the video	
Wed 4/9/25	9:15 AM	11:45 AM	2.5	Research, training, learning	Completed up to Portfolio of Junior Programmer pathway		
Wed 4/9/25	4:30 PM	7:00 PM	2.5	Research, training, learning	Completed up to "Counting Prototype" of Junior Programmer pathway		Changing platforms or building simple projects takes a long time. A simple WebGL build takes around 8 minutes.
Wed 4/9/25	8:30 PM	9:30 PM	1.0	Research, training, learning	Completed up to "Create a scene flow" of Junior Programmer pathway		
Thu 4/10/25	12:01 AM	1:30 AM	1.5	Research, training, learning	Completed "Scene Flow and Data" mission of Junior Programmer pathway		
Thu 4/10/25	4:00 PM	7:30 PM	3.5	Research, training, learning	Completed last mission of Junior Programmer pathway		
Sat 4/12/25	9:45 PM	11:45 PM	2.0	Coding	Added title scene and a scene to test calculating orbits to Unity project	Next steps: trying to draw orbit lines as 2D UI elements on top of 3D view	
Sat 4/12/25			0.5	Documentation	Updated timelogs		
Mon 4/14/25	12:01 AM	12:30 AM	0.5	Research, training, learning	Researched antialiased line drawing in Unity	I know how to draw antialiased lines in OpenGL, but not in Unity	
Wed 4/16/25	4:45 PM	5:15 PM	0.5	Other	Reviewed latest announcements, the self-assessment survey, and final deliverables information on Blackboard.		
Thu 4/17/25	2:30 PM	9:00 PM	6.5	Documentation	Expanded slide presentation as it relates to my learning outcomes & other content		
Fri 4/18/25	8:00 PM	9:00 PM	1.0	Documentation	Managed the project by adding items to the issue tracker and planning out next steps		
Sat 4/19/25	4:00 PM	4:45 PM	0.8	Design	Sketched out a new storyboard		
Sat 4/19/25	4:45 PM	6:45 PM	2.0	Coding	Worked on implementing latest storyboard in Unity		
Sat 4/19/25			1.0	Testing, debugging	Tested newly added scenes and code		
Sat 4/19/25			0.5	Documentation	Updated timelogs		
Tue 4/22/25	3:15 PM	5:15 PM	2.0	Coding	Added Intro and EndCredit scenes from latest storyboard in Unity. Updated other scenes.		
Tue 4/22/25	7:15 PM	8:30 PM	1.3	Coding	Added Earth and some lines to Orbit scene		
Thu 4/24/25	4:15 PM	9:15 PM	5.0	Coding	Wrote code for orbit line calculations and animation.		
Thu 4/24/25			1.0	Testing, debugging	Tested calculations and animation.		

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Fri 4/25/25	5:30 PM	8:30 PM	3.0	Coding	Attempted to write code to calculate orbit position from time	Challenge: there is no closed form for this equation, so I will have to figure out the best approach	
Fri 4/25/25			0.3	Documentation	Added issues in the issue tracker		
Fri 4/25/25			0.5	Research, training, learning	Researched the problem of calculating the eccentric anomaly from the mean anomaly		
Sat 4/26/25	12:01 AM	2:00 AM	2.0	Testing, debugging	Debugged and wrote code for the Orbit and other scenes.		
Sat 4/26/25			0.3	Documentation	Updated and closed issues in the issue tracker		
Sat 4/26/25	4:00 PM	5:00 PM	1.0	Design	Planned out gameplay and UI concepts in journal		It's important to have a roadmap to know what features to work on and which features can be omitted from the final product
Sat 4/26/25	7:00 PM	9:00 PM	2.0	Coding	Adapted code for Kepler orbit from SimpleKeplerOrbits on Github & worked on Orbit scene		There's existing code for orbital mechanics on Github, so I don't need to reinvent things.
Sat 4/19/25			0.5	Documentation	Updated timelogs		
Sun 4/27/25	1:00 AM	3:30 AM	2.5	Coding	Worked on first mission & added maneuver node icon		
Sun 4/27/25	3:30 PM	7:00 PM	3.5	Coding	Refactored code & updated scenes		Calculating the Kepler orbits from position and velocity vectors is hard to do from scratch
Sun 4/27/25	8:00 PM	10:30 PM	2.5	Coding	Worked on orbits & maneuver nodes		
Mon 4/28/25	12:01 AM	1:30 AM	1.5	Coding	Worked on calculating orbit given a position and velocity		
Mon 4/28/25	12:30 PM	1:30 PM	1.0	Testing, debugging	Debugged code that calculates orbit given a position and velocity		
Mon 4/28/25	4:15 PM	6:30 PM	2.3	Testing, debugging	Found and fixed mistake in code that calculates the velocity vector. Made progress on more orbit code.		
Mon 4/28/25	6:30 PM	7:30 PM	1.0	Coding	Added win state to orbit scene		
Tue 4/29/25	12:15 AM	2:15 AM	2.0	Coding	Refactored code		
Tue 4/29/25	4:30 AM	6:15 AM	1.8	Testing, debugging	Fixed bug with calculating velocity. Updated UI for orbit scene.		
Tue 4/29/25	4:00 PM	9:00 PM	5.0	Coding	Added "Success" panel and refactored more cde. Added 2nd mission.	Challenge: calculating the closest approaches between two orbits.	The SimpleKeplerOrbits project has an elliptical orbit solver, so I could adapt that
Wed 4/30/25	12:01 AM	4:00 AM	4.0	Coding	Added features to 2nd mission and refactored code common to missions 1 & 2.	Challenge: close approach has no closed form, and I haven't found a solution yet	
Wed 4/30/25	3:00 PM	8:00 PM	5.0	Coding	Added code that will support calculating the closest approaches		
Thu 5/1/25	12:01 AM	2:30 AM	2.5	Coding	Added Mission 3. Refactored to remove duplicate code.	Next steps: working on cinematic scenes	
Fri 5/2/25	2:45 PM	5:00 PM	2.3	Design	Worked on Launch scene. Updated layout and colors in other scenes.		
Fri 5/2/25	7:00 PM	10:00 PM	3.0	Design	Worked on greybox model of Saturn V and mobile launcher.		
Sat 5/3/25	2:00 AM	3:00 AM	1.0	Coding	Wrote scripts for animating rocket		
Sat 5/3/25	10:15 AM	10:45 AM	0.5	Testing, debugging	Fixed bug with acceleration		
Sat 5/3/25	4:00 PM	5:30 PM	1.5	Coding	Worked on UI for launch scene		
Sat 5/3/25	8:15 PM	8:45 PM	0.5	Coding	Added readouts to launch scene		
Sat 5/3/25			0.5	Documentation	Updated timelogs		

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Project: Orbital Mechanics Simulator

Activities Completed

Date	Start	End	Hours	Category	Description of completed task	Challenges and/or next steps	Reflection
Sun 5/4/25	12:01 AM	1:00 AM	1.0	Coding	Added fill gauge UI element		
Sun 5/4/25	1:00 AM	2:00 AM	1.0	Design	Worked on S-IC textures		
Sun 5/4/25	3:45 PM	5:45 PM	2.0	Design	Worked on S-II and S-IV textures		
Sun 5/4/25	6:00 PM	11:00 PM	5.0	Design	Worked on terrain & mobile launcher models and textures		
Mon 5/5/25	12:01 AM	3:30 AM	3.5	Design	Worked on crane models and textures. Started working on Solar System scene.		
Mon 5/5/25	12:01 PM	2:00 PM	2.0	Supervisor discussion	Met with supervisor		
Mon 5/5/25	2:30 PM	7:30 PM	5.0	Coding	Worked on Solar System scene.		
Mon 5/5/25	8:00 PM	9:30 PM	1.5	Coding	Worked on Solar System scene.		
Tue 5/6/25	12:01 AM	1:30 AM	1.5	Design	Added music & sound effects		
Tue 5/6/25	10:45 AM	12:45 PM	2.0	Coding	Refactored orbit plots and Solar System scene		
Tue 5/6/25	1:15 PM	2:15 PM	1.0	Coding	Worked on hiding and changing nodes depending on camera distance		
Tue 5/6/25			1.0	Documentation	Updating issues in issue tracker		
Tue 5/6/25	5:15 PM	5:45 PM	0.5	Coding	Worked on lighting in Solar System scene		
Tue 5/6/25	6:30 PM	8:00 PM	1.5	Coding	Worked on Cinemachine & launch sequence in Launch scene		
Tue 5/6/25	10:00 PM	11:00 PM	1.0	Design	Added and revised sound effects, particle effects, cinematics, icons, and credits.		
Tue 5/6/25			1.5	Testing, debugging	Tested and fixed bugs by progressing through all scenes.		
Wed 5/7/25	1:00 AM	2:00 AM	1.0	Testing, debugging	Worked on floating origin problem		
Wed 5/7/25	3:15 PM	5:15 PM	2.0	Testing, debugging	Finished implementing and testing floating origin in Solar System scene		
Wed 5/7/25	5:15 PM	6:00 PM	0.8	Design	Updated chapter select scene & made other minor adjustments		
Wed 5/7/25	6:00 PM	7:00 PM	1.0	Documentation	Updated final presentation slides		
Wed 5/7/25	7:00 PM	8:00 PM	1.0	Testing, debugging	Tested WebGL & PC builds. Fixed issues that were found.		
Wed 5/7/25	9:30 PM	11:59 PM	2.5	Documentation	Created and edited final demo video		
Thu 5/8/25	6:00 PM	7:00 PM	1.0	Testing, debugging	Removed video scene & made a new WebGL build.		
Thu 5/8/25	9:00 PM	9:30 PM	0.5	Testing, debugging	Published WebGL build & tested it.		
Thu 5/8/25	10:15 PM	10:45 PM	0.5	Coding	Implemented using the mean longitude at epoch.		
Fri 5/9/25			0.5	Documentation	Updated timelogs		