Title -

Space Defenders

Members -

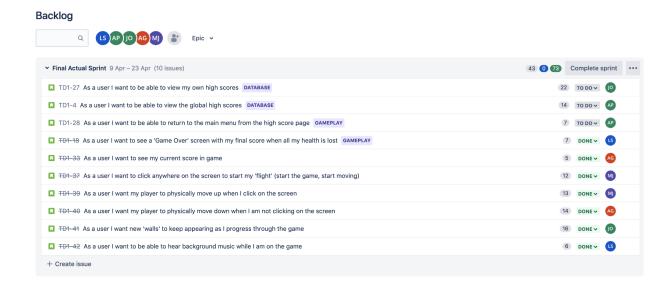
- Joshua O'Leary
- Michael Jordan
- Alice Gurkova
- Luke Soderquist
- Adam Poppenhagen

Description -

Our app is called Space Defender. Space Defender is a flappy bird style game capturing all the excitement of futuristic space exploration! The game will be hosted on its very own website with several features. At the outset, new users will be prompted to create their very own profile with a custom username and password. Upon registration, users will then be treated to the most cutting edge graphical interface possible! (within 16 weeks of amateur production by students) Gazing at the amazing functionality of our menu, users can start a new game, view and most recent high scores. It may even be possible to send messages to other players (time permitting). From here, users will not be able to contain their excitement and will rush to start a new game. Upon accessing the game, the user will notice that the astronaut immediately plummets to the first of many deaths. Then, upon accepting the replay and clicking literally anywhere other than the play button, the countdown to adventure begins! Set in an exciting, vibrant and totally immersive futuristic struggle for the destiny of the universe, you are known simply as "The Astronaut". Your superpower? To somehow be affected by gravity in an extremely predictable way even in deep space! Shot down behind enemy lines, you must escape back to the resistance base. Marvel at wave after wave of electrified barrier that you must squeeze through or perish in the attempt. Experience a Kafka-esque never-ending Groundhog day like experience as you die over and over in a futile effort to return to friendly space. Just like real life! Our users will be casual phone gamers and people who have fifteen minutes to kill. Maybe people waiting in line at the post office.

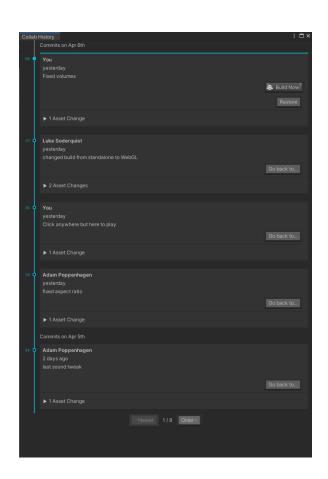
Project Tracker -

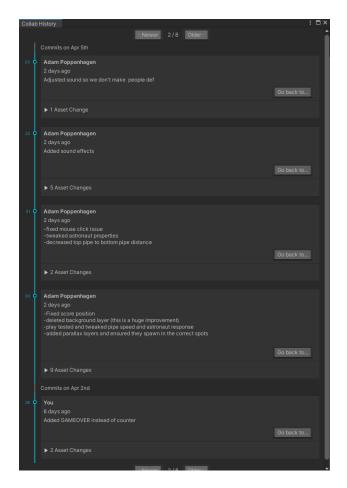
https://csci-3308-spring21-group1.atlassian.net/jira/software/projects/TD1/boards/1

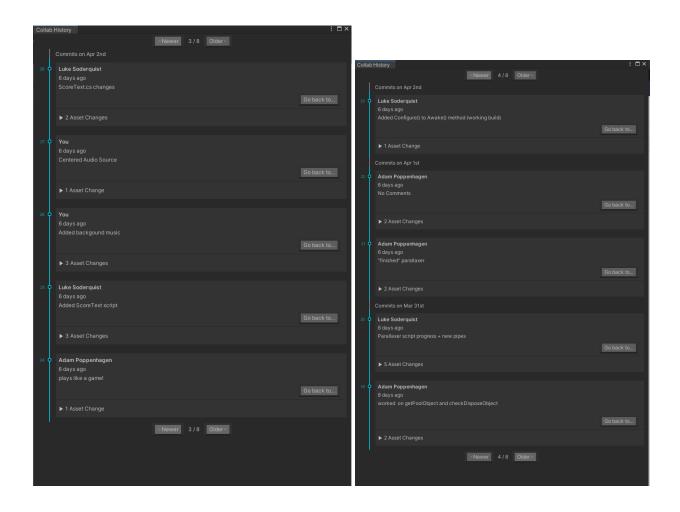


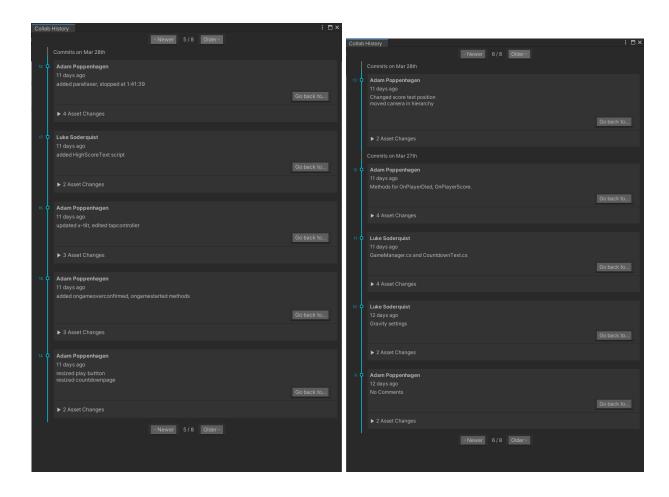
Link to Git Repository - https://github.com/CSCI-3308-CU-Boulder/3308SP21_section014_1

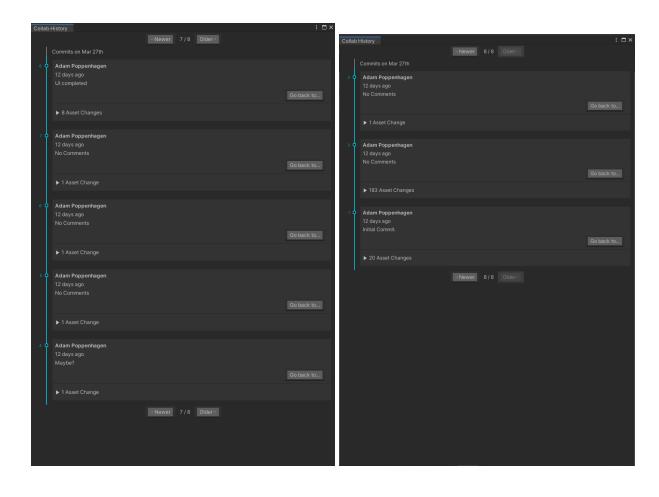
Contributions: These are the commits from Unity Hub and shows contributions to the game. Josh took the screen shots so "You" is Josh.









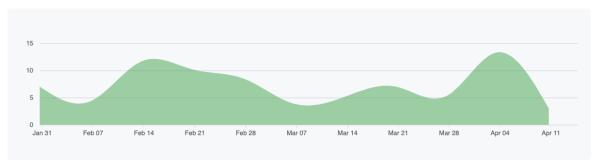


Commits to GitHub:

Jan 31, 2021 – Apr 15, 2021

Contributions: Commits ▼

Contributions to master, excluding merge commits and bot accounts













Individual Contributions:

- Luke:
 - Served as the team scribe, and dealt with most TA/group communication
 - Designed the UI of the registration/login page
 - Configured the docker-compose.yml file and node.js/postgreSQL environment that the project is run on.
 - Designed postgreSQL database structure
 - Wrote all server-side node.js code for post/get requests
 - Embedded Unity game into home page HTML
 - Converted HTML files to ejs to allow them to communicate with the node.js server-side code.
 - Contributed to Unity development which included troubleshooting Unity issues, creating/changing Unity GameObjects and writing C# scripts

Josh:

Initially created the unity team and project so we could collaborate and design out game, created jira board project for us to reference, helped make our sprints and difficulty ratings of tasks we wanted to finish, created the About Page and helped design the website, such as the navbar, scroll effect, home page, game box, helped implement the music into the game and set volume levels to a solid volume, helped with unity development, created custom port for the website to run, 3001, that way there are no issues with other instances running on 3000, some formatting on the unity side with text boxes etc, reformatted entire git repository to make sure all folders and documents had the same formatting and organization, removed unnecessary files from github. Worked on ReadMe to describe how to run the game and website as well and the team and project aspects.

Adam:

- Hand drew each background for webpages and wrote css style to make it fit in any screen size or aspect ratio.
- Wrote css for registration page font styling.
- Wrote the Application description
- Hand drew each game asset i.e. Astronaut, electrified barriers backgrounds, etc
- Composed original 5 ½ minute score for game music
- Custom created sound effects for death, score, and jump
- Created game object prefabs and attached hand drawn sprites
- Created games objects to attach sound effects to
- Created colliders for all necessary objects (astronaut, obstacles, sky and ground)

- Wrote and debugged C# scripts to describe astronaut behavior and parallaxer for background and obstacle movement, pool creation and deletion
- Extensively play-tested and tweaked gameplay (astronaut mass, gravity coefficient, tap force and obstacle speed)
- Implemented scoring features (high score and progressive in game score)

Michael:

- Helped to implement the About Us page on the website so that it properly explained the project and the project team.
- Helped to finalize presentation format and distribute presentation slides to group members.
- Helped to create and finalize all Project Milestone assignments.
- Generally helped to bug-fix the website through extensive browsing and log-in attempts.
- Play tested the game in order to find bugs and improve overall user experience. Successfully found and helped to correct a game-breaking bug involving collision detection.
- Provided format input for many website features and helped to decide overall art style for the project.
- Essentially provided code and project input by working alongside a
 primary contributor who was physically writing the code. Overall
 contributing background work that is not reflected by individual commits
 since other team members committed the work as a primary contributor.

Alice:

- Came up with actors and use cases and drew the Use Case Diagram
- Worked on the Project Features list and thought of many of the user stories, in the end made all the user stories for our final sprint (since we changed trajectory halfway through)
- Did research for and made the Entity Relationship Diagram
- Did research for and made all the Application Architectures including the final submission
- Worked on figuring out what PostgreSQL is and how to implement it into our project (before it was covered in class and lab) and helped in creating specifically the 'users' table to collect and store user account information
- Played a primary role in figuring out why the buttons weren't responding once SFX were added in Unity
- Helped group troubleshoot numerous Unity issues.
- Contributed to decisions concerning the look and technicalities of the game

- Worked alongside team members in discord calls when working on Unity, giving input and doing extra research for troubleshooting or just referencing previous game versions
- Aided in the creation of each Milestone Document, working on creating cohesive work and doing any extra research when we did not know what was being asked
- Was sick for almost two weeks towards the end of the project and couldn't be of any help to the group for that time unfortunately.

Deployment -

- Download "All Project Code" files from the repository or clone the repository
- Unzip and store in isolated file
- Open Command Prompt
- Navigate to Main Menu Build '/AllProjectCode/MainMenuBuild'
- Ensure docker is installed on your machine
- Run Terminal Command 'docker-compose up'
- Once the message "hosted on port 3001" appears, visit localhost:3001 in the browser of your choice
- Play the game! (Or browse the web page)