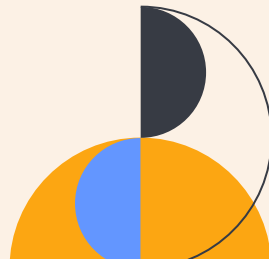




Group 402:
Adding Vehicles to Covey.Town

Abhay Bisht, Ethan van Heerden, Liam Evans, Sam Phillippo



Movement in Covey.Town



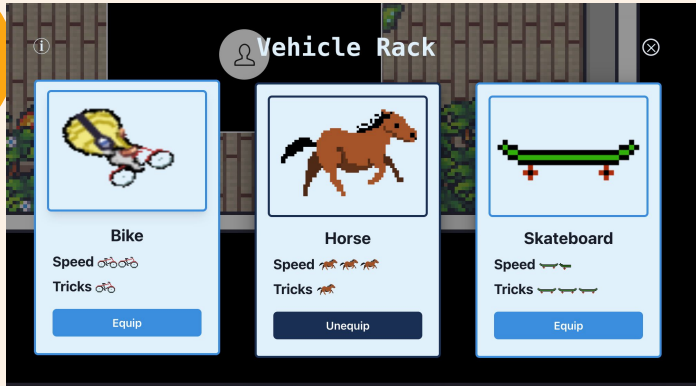
“As a user who wants to use vehicles, I want an accessible vehicle pick-up station and a tutorial on how to use them so that I can use a vehicle.”

“As a user, I want ways to equip and unequip a vehicle such that my movement speed changes depending on what vehicle I have.”

“As a user with a vehicle, I want to be able to do tricks to have more fun in Covey.town.”

Features Implemented

- 3 new vehicles! (skateboard, bike, and horse), with all new speeds and animations
- Vehicle rack for selecting your vehicle, including a descriptive tutorial
- New typing minigame, allowing tricks to be performed on your vehicle
 - Includes local and all-time leaderboards

Screenshot of a 'Leaderboard' menu. It shows a table with columns for Rank, Initials, and High Score. The table is divided into 'Current' and 'All Time' sections.

Leaderboard		
① Current		① All Time
RANK	INITIALS	HIGH SCORE
1	LJA	1100
2	EVH	1000
3	SAM	1000
4	LJE	1000
5	LJE	900
6	EEE	900

Tech Stack



Tiled - Map editor used to implement our custom interactable zones and sprites



Piksel - Sprite/Animation creation tool, used for all custom sprites and animations



Free Texture Packer - free sprite atlasing tool to generate useful spritesheets

Firebase - Used their cloud database tool in order to store our leaderboard information



Render - Platform used to deploy and host our finalized version of Covey.Town

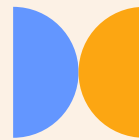
Covey.Town existing tech stack (Typescript, React, Jest, ChakraUI)



Contributions



- Ethan - BE implementation for trick game, Leaderboard HTTP API, tests
 - Percent: 25 Hours: 55
- Abhay - Vehicle data structures, BE vehicle equip, trick game FE/partial BE, Leaderboard implementation
 - Percent: 25 Hours: 60
- Liam - BE/FE Implementation for the vehicle rack, UI redesign for our frontend pieces
 - Percent: 25 Hours: 55
- Sam - Art + implementation/integration for custom sprites/animations for vehicles + interactable areas
 - Percent: 25 Hours: 50



Challenges Faced + Deviations

Challenges

1. Animations: lots of learning + time-consuming (bad at art)
2. Firebase Memory Issue
3. Tricks can only be performed in a specific area
4. Setting up asynchronous timer in the backend
5. Creating super and subclasses for Vehicles vs adding it as a shared type interface

Deviations - not completed due to time constraints

1. Did not implement our desired feature of letting users choose the color of their vehicle
2. Did not complete our optional feature of letting the user do tricks anywhere (not just in the vehicle trick area)
 - a. Associating a custom event with a Phaser key event was tricky for our use case

We devoted more time to make our functional UI be very visually appealing and engaging for users

The background features several abstract geometric shapes. In the top left, there's a blue circle partially overlapping an orange circle. At the top center, a blue circle is partially enclosed by a thin black outline. The top right shows a large blue circle, an orange circle, and a blue semi-circle. In the middle right, there's a large, empty white circle with a thin black outline. The bottom left has a blue circle overlapping an orange circle, with a dark grey semi-circle above them. The bottom center shows a dark grey semi-circle above a blue circle, which is overlapping a larger orange circle. The bottom right features a blue circle overlapping an orange circle, with a dark grey semi-circle above them. There are also two sets of three dots arranged in a 2x3 grid, one in the upper right and one in the lower left.

live demo!

Thank you

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Site



Repo

