

COSC349 Assignment 2

Report for Shay Stevens, ID #7196262

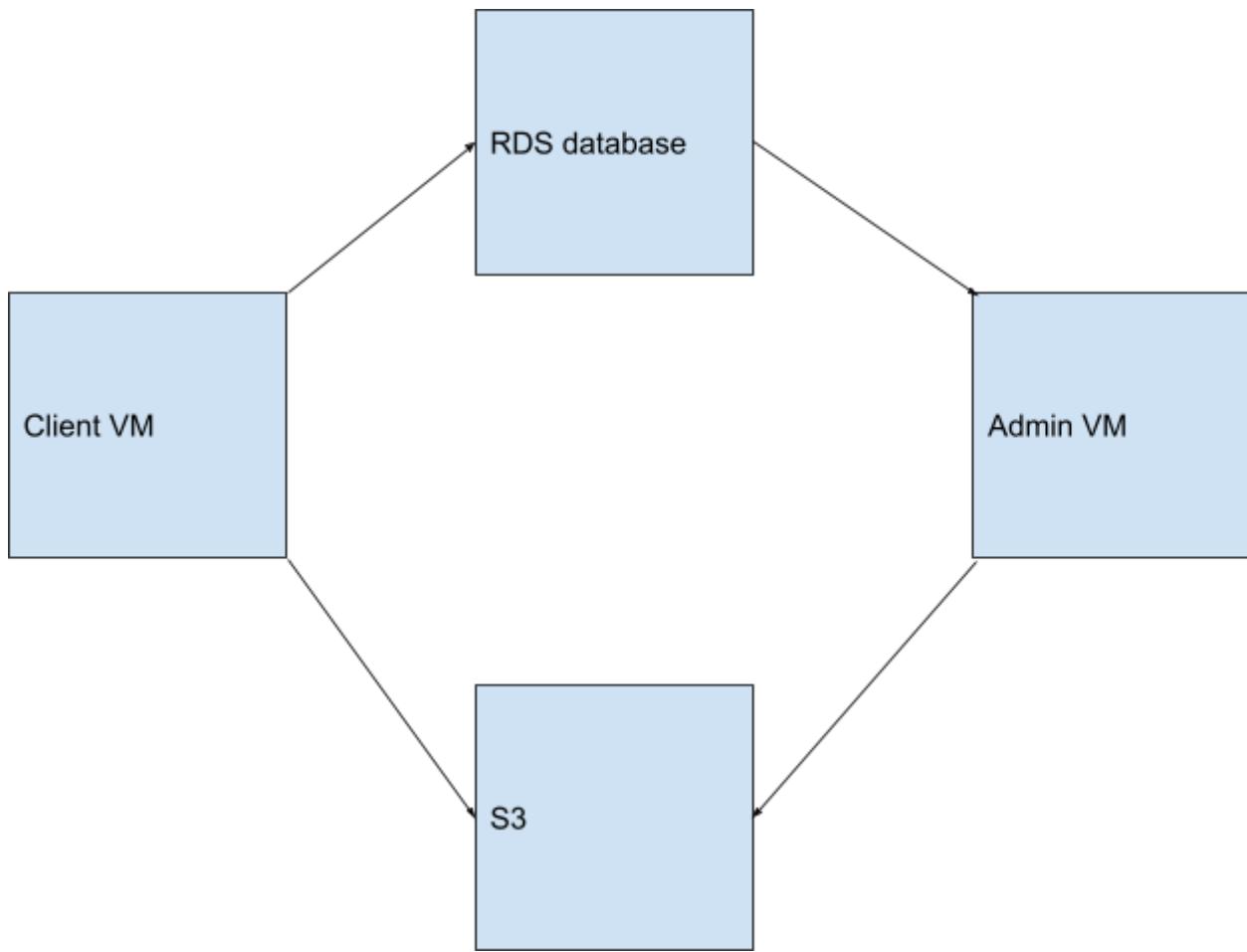
Introduction

My application is a dog booking website, called Doge Rentals. The application is built using two virtual machines, an RDS database and S3 for storage. The first VM is a web server that users interact with to make a booking. And the second VM is an admin server that hosts the admin page that shows the bookings made by users from the database. The RDS database stores the bookings made by the customers while the S3 is used to backup the applications files.

Reaching application in cloud

- Navigate to the learner lab and start the lab.
- When AWS goes green click the link
- When at console home navigate to EC2 and go to instances running
- Check the box next to one of the running VM's and click the ipv4 address
- Change https to http

Design



The web user uses the client VM. They interact with the website to make a booking. When a booking is made it is stored into the RDS database. Admins use the admin VM to look at the bookings made by clients. The admin VM connects to the rds database and displays the data in the bookings table. S3 stores the web user and admins files. This is for backup in case a file corrupts or if you want to update the files you always have a backup just in case something goes wrong.

RDS database

I decided to use an RDS database as it was simple to set up and it added security as you can restrict the amount of access people can have with choosing VPC security groups.

For example, my database only lets the web VPC have access.

Security

VPC security groups

[cosc349-web \(sg-0c36a73ffcb70015a\)](#)
 Active

The database is only used to store the bookings made by clients.

S3

S3 is used to backup the web users folders and the admin folders. I chose to do this because it is always good practice to backup files. Files may corrupt, or if developers want to update the website in the future they have a backup to fall back on.

Objects (2)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

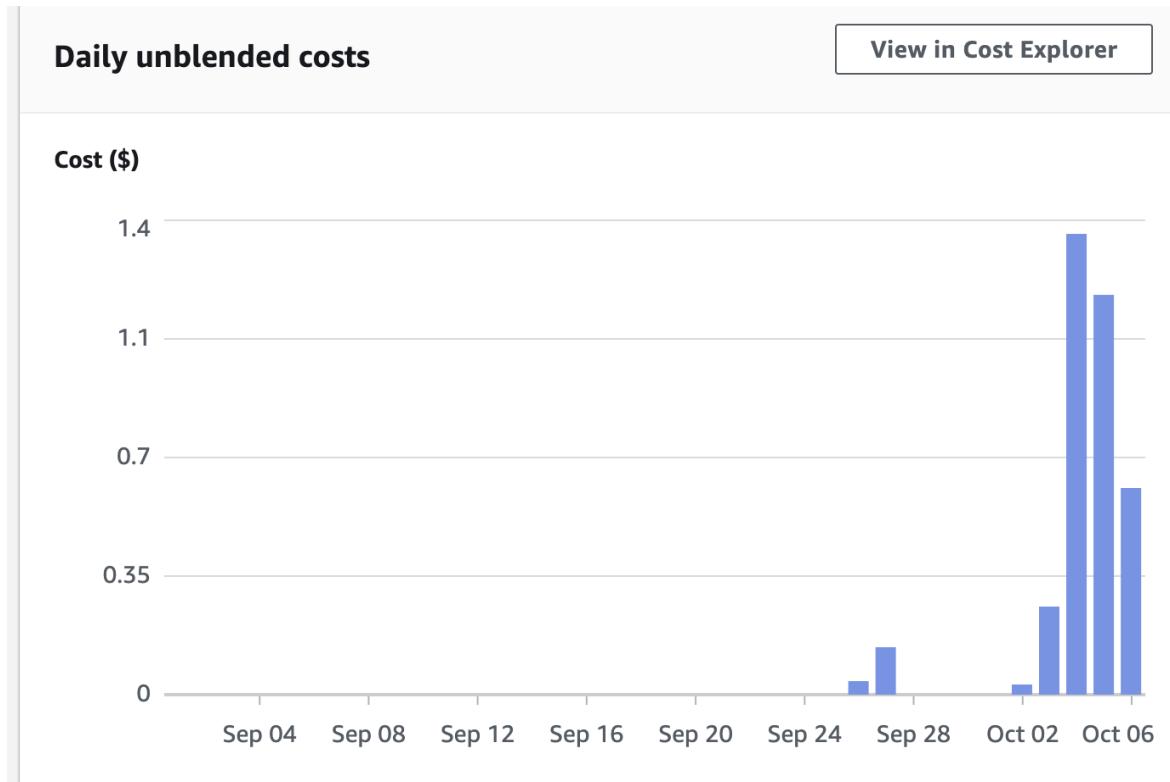
Find objects by prefix

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	admin/	Folder	-	-	-
<input type="checkbox"/>	www/	Folder	-	-	-

Running costs

Idle - It costs roughly approximately 60 cents to run the application in idle for a day.

Lightly running - It costs roughly \$1.20 to run the application when it's lightly being used for a day.



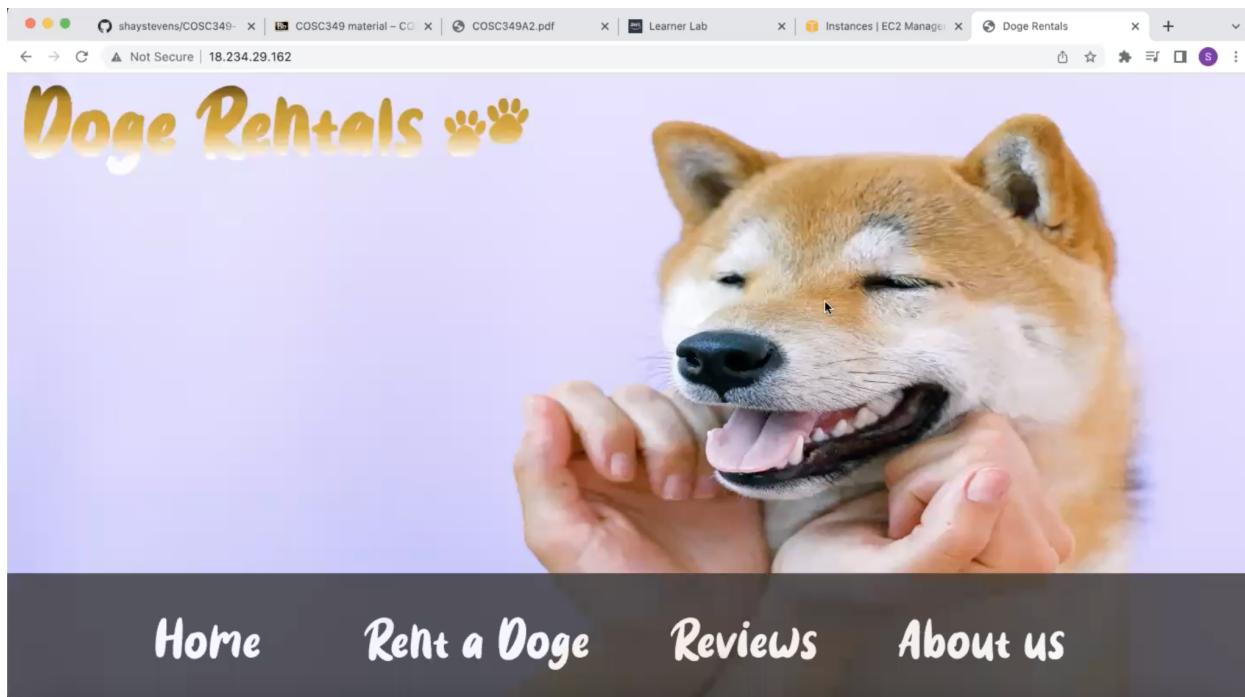
The main costs are coming from the RDS database.

Top costs for current month

	Amazon Relational Database Service	\$3.07
	Amazon Elastic Compute Cloud - C...	\$0.29
	EC2 - Other	\$0.07
	Amazon Simple Storage Service	\$0.00
	CloudWatch Events	\$0.00

Recording:

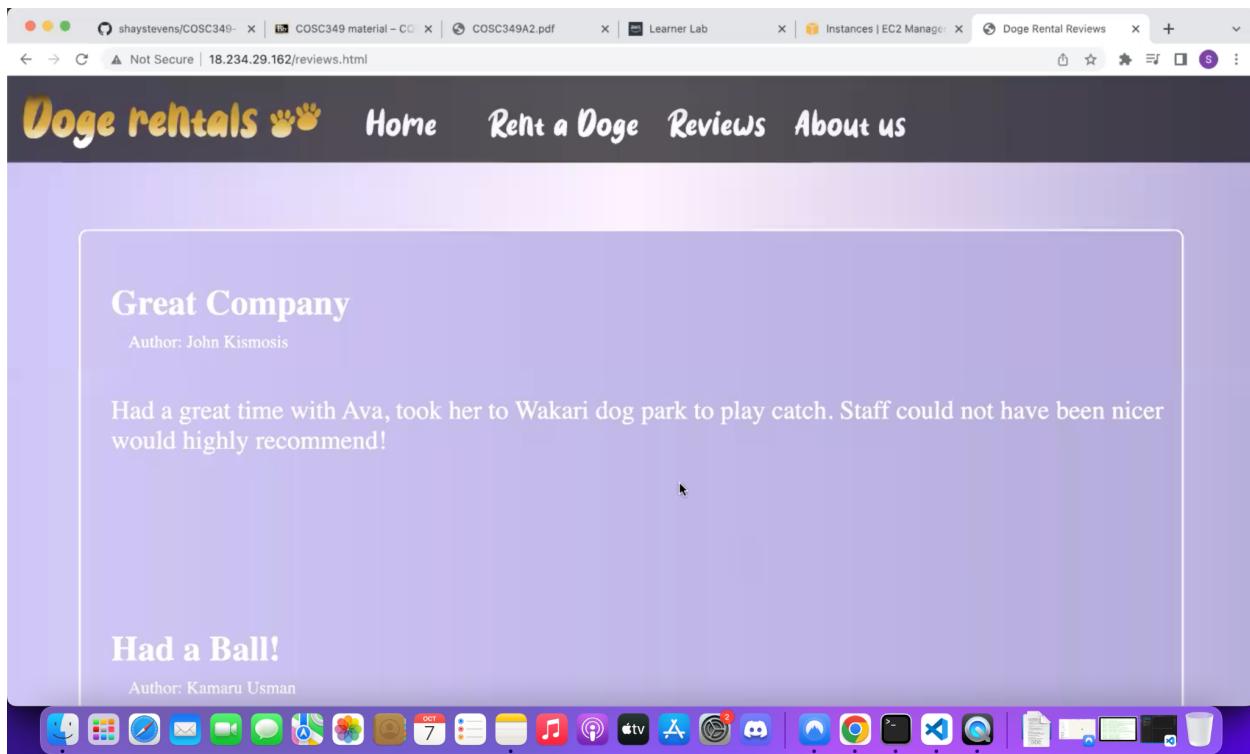
0:00 - 0:06



This is the index page of the web server (#VM1) it is hosted on a random ip provided by AWS. The user can use the header to go to three different web pages. Rent a Doge,

Reviews, or About us.

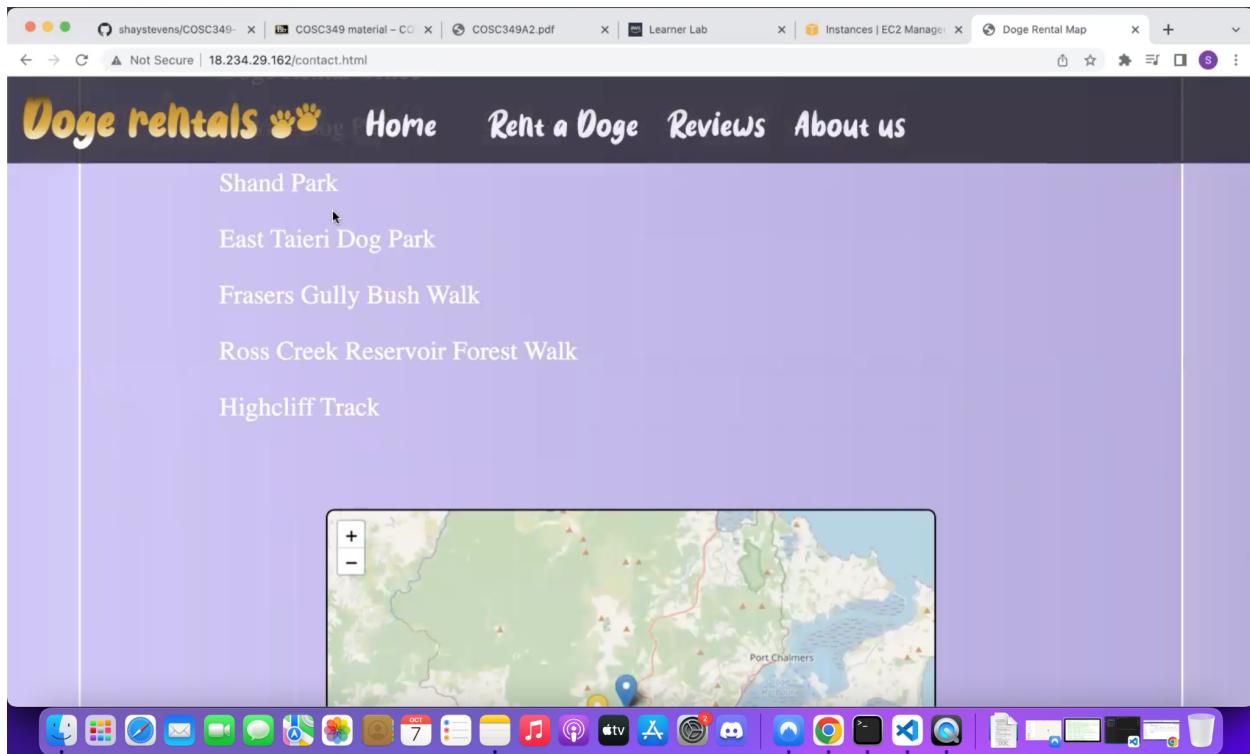
0:07 - 0:10



The screenshot shows a web browser window with multiple tabs open. The active tab displays a website for 'Doge rentals' with a purple header. The header includes the logo 'Doge rentals' with a paw print, and navigation links for 'Home', 'Rent a Doge', 'Reviews', and 'About us'. The main content area features a review titled 'Great Company' by 'Author: John Kismosis'. The review text reads: 'Had a great time with Ava, took her to Wakari dog park to play catch. Staff could not have been nicer would highly recommend!'. Below this review is another one titled 'Had a Ball!' by 'Author: Kamaru Usman'. The browser's toolbar and a purple Mac OS X-style dock with various application icons are visible at the bottom.

This is the reviews page for the website which displays reviews left by other users. The reviews are read from a JSON file.

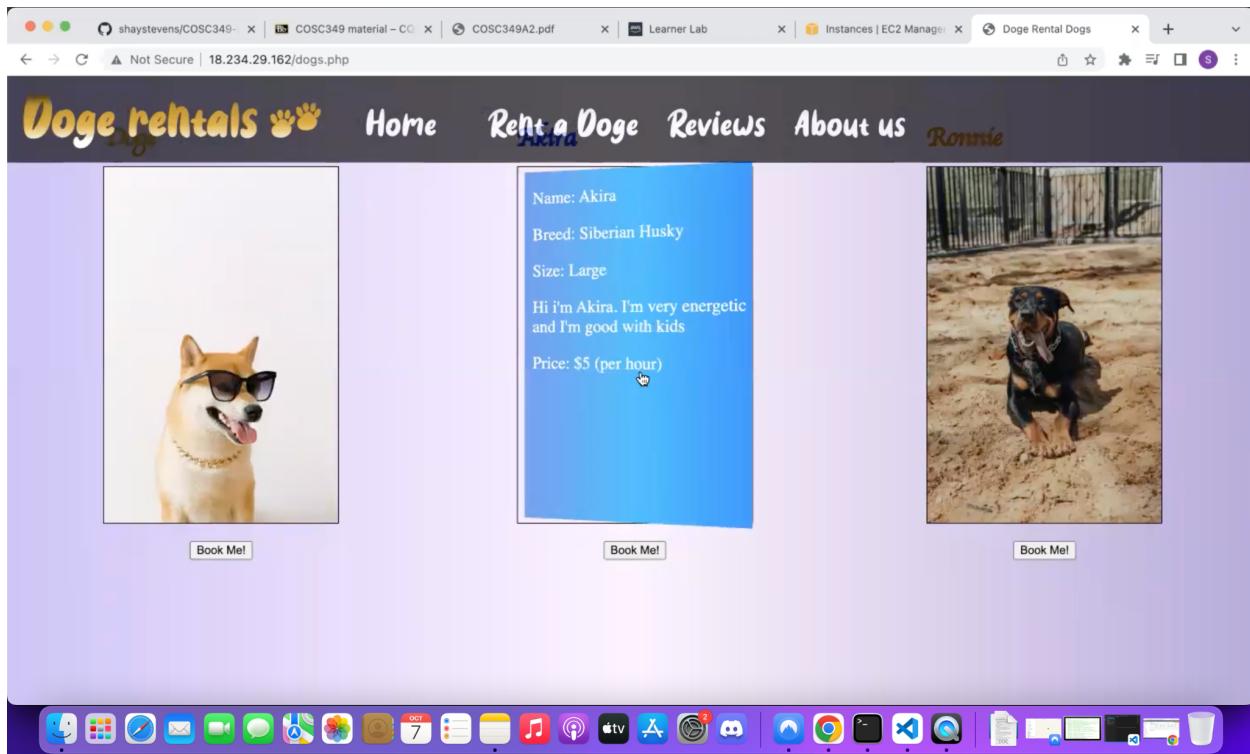
0:11 - 0:23



The screenshot shows a web browser window with multiple tabs open. The active tab displays a website for 'Doge rentals' with a purple header. The header includes the logo 'Doge rentals' with a paw print, and navigation links for 'Home', 'Rent a Doge', 'Reviews', and 'About us'. Below the header, there is a list of locations: 'Shand Park', 'East Taieri Dog Park', 'Fraser's Gully Bush Walk', 'Ross Creek Reservoir Forest Walk', and 'Highcliff Track'. At the bottom of the page is a map of a coastal area with a red line and a blue location pin. The browser's toolbar and a purple Mac OS X-style dock with various application icons are visible at the bottom.

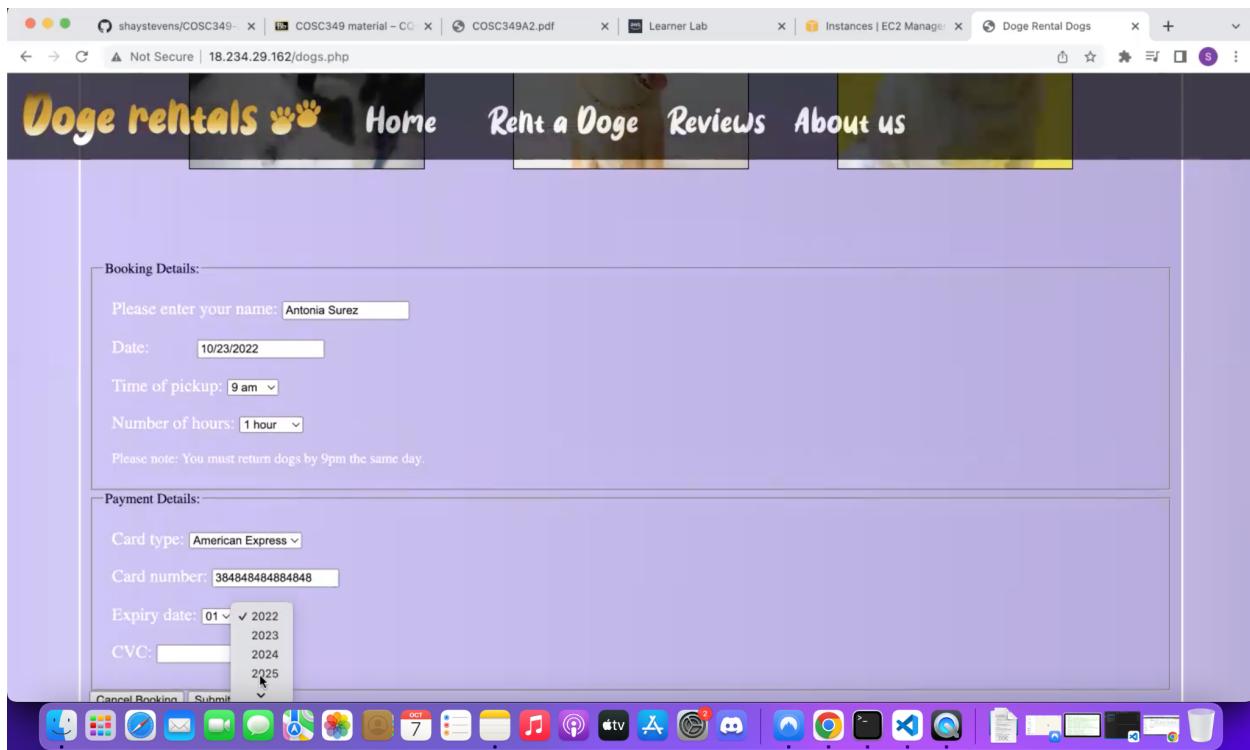
This is the about us page. It contains a nice description about the company. Scrolling down reveals a leaflet map that is used to show key locations. The red marker is the location of the business, Yellow markers are Dog parks, and Blue markers are walking tracks. The buttons underneath the map can be used to show/hide the tracks/parks and the location names can be clicked to focus the map onto that location. The locations are read from a GEOJSON file.

0:24 - 0:43



This is the Rent a Doge page. You can click on the image of the dog to get a description about the dog names, breed, size etc. Then click again to spin back to the picture of the dog. You can book at maximum three dogs at a time. The dogs chosen are stored in local storage so you can leave the web page and go back and your picks will be remembered.

0:44-1:11

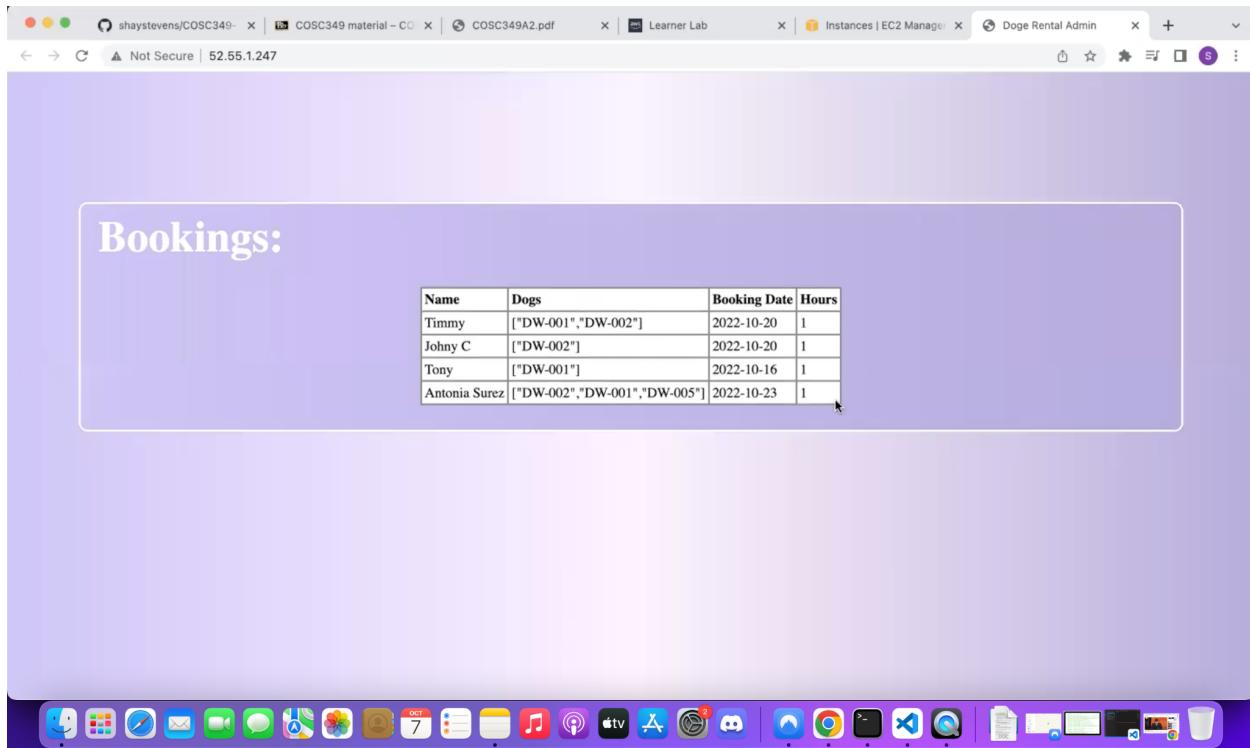


The screenshot shows a web browser window with the following details:

- Address bar: Not Secure | 18.234.29.162/dogs.php
- Page title: Doge rentals 🐶
- Header menu: Home, Rent a Doge, Reviews, About us
- Form sections:
 - Booking Details:**
 - Please enter your name:
 - Date:
 - Time of pickup:
 - Number of hours:
 - Please note: You must return dogs by 9pm the same day.
 - Payment Details:**
 - Card type:
 - Card number:
 - Expiry date: 2022 2023 2024 2025
 - CVC:
- Buttons at the bottom: Cancel Booking, Submit

After selecting dogs a form will appear at the bottom of the page. You can use the buttons at the bottom to either cancel the booking, or to submit the form. If you enter details into the form incorrectly error messages will appear at the bottom of the form detailing what you got wrong. When you enter details correctly the form will submit and give you a message saying your booking was successful and insert your booking details into the bookingsdb table in the database server (RDS).

1:29-1:37



Name	Dogs	Booking Date	Hours
Timmy	["DW-001", "DW-002"]	2022-10-20	1
Johny C	["DW-002"]	2022-10-20	1
Tony	["DW-001"]	2022-10-16	1
Antonia Surez	["DW-002", "DW-001", "DW-005"]	2022-10-23	1

This is the admin page that is hosted by the admin server (#VM2) by a random ip provided by aws. It reads from the bookings table from the database server RDS and displays the bookings made for the admin to view.

Things I wanted to deploy but was unable to:

- I wanted to make S3 automatically take snapshots of the files but I was unable to do this. Instead the files have to be manually uploaded.
- I wanted to set up an SNS. To send a message to a customer whenever they made a booking. However, I couldn't figure out how to do this within an application.
- I wanted to enable https but was unable to.