

Demo 2 Documentation

CSCI 441 Software Engineering

Group # 4:

ParKEZ Automated Parking Garage

Project URL: <https://fhsu-park-ez.vercel.app/>

12/08/2023

Team Members:

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Adrian Elgin

Mikael Mikaelian

Phongsavanh Mongkhonvilay

Geoffrey Sarpong

Christopher Smith (Team Leader)

Table of Contents

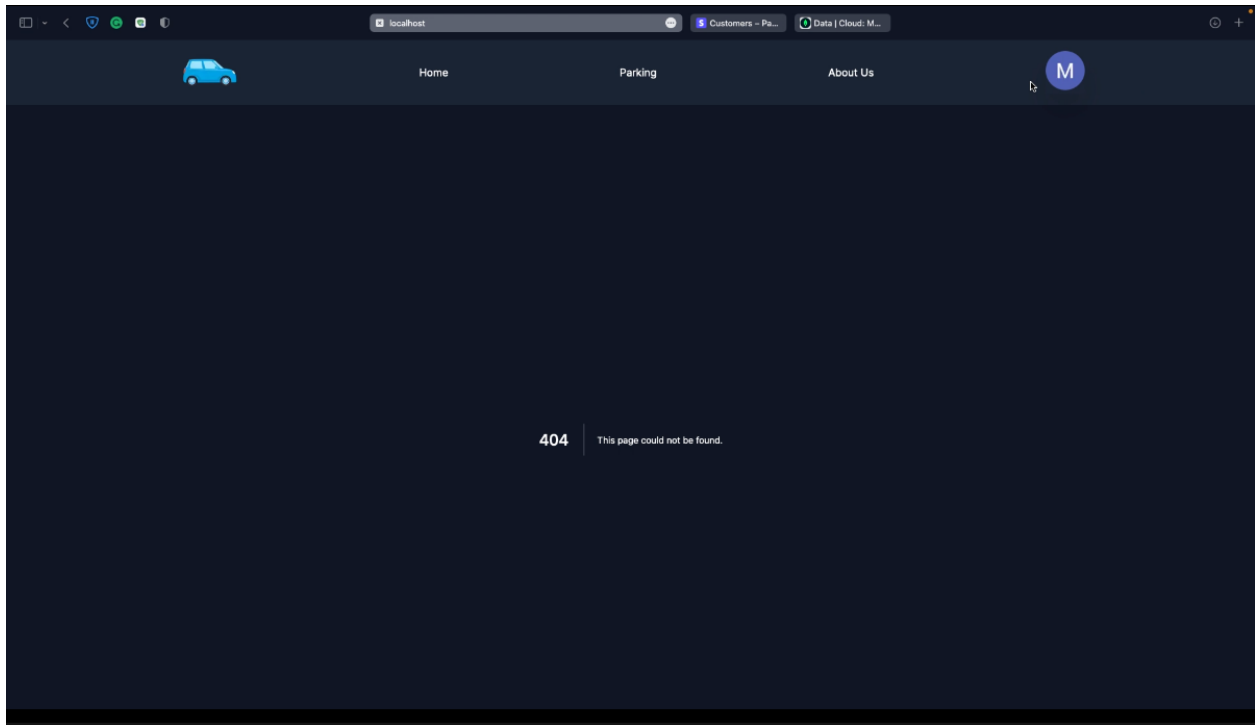
Table of Contents	Error! Bookmark not defined.
Contribution Breakdown	3
Slide Overview.....	4
Project Management.....	Error! Bookmark not defined.
References	10

Contribution Breakdown

Everyone contributed an equal amount on the Demo 2 video.

Slide Overview

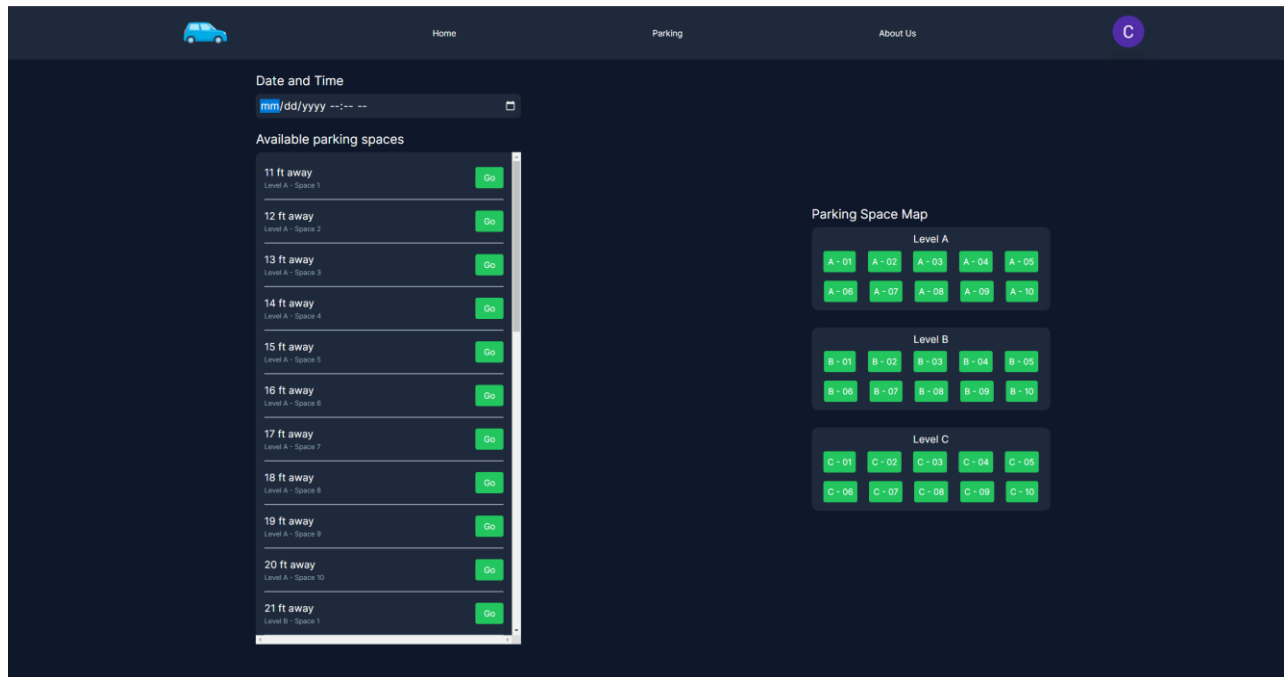
ParkeEZ Home Page.



Sign-Up Screen

A screenshot of the ParkeEZ Sign-Up Screen. The page has a light blue background with a car icon and the text 'Park EZ'. The main content is a white form titled 'Create an account'. The form contains the following fields: 'Adrian' (with a yellow circle around the text), 'Email' (with the value 'adrian37@gmail.com'), 'Phone', 'License Plate (upload pic required)', 'Make' and 'Model' (separate fields), 'Year' and 'Color' (separate fields), and 'Payment Type'. At the bottom of the form, there is a link that says 'Already have an account? Login here'.

Reservation Screen



The Reservation Screen features a dark blue header with a car icon, navigation links (Home, Parking, About Us), and a user profile icon labeled 'C'. Below the header, there is a 'Date and Time' section with a date picker showing 'mm/dd/yyyy'. The main content area is divided into two columns. The left column, titled 'Available parking spaces', lists 11 spaces with their distances and levels, each with a green 'Go' button. The right column, titled 'Parking Space Map', displays three maps for Level A, Level B, and Level C, each showing a grid of 10 spaces (01-10) with green buttons.

Date and Time

mm/dd/yyyy --:-- --

Available parking spaces

- 11 ft away
Level A - Space 1 [Go](#)
- 12 ft away
Level A - Space 2 [Go](#)
- 13 ft away
Level A - Space 3 [Go](#)
- 14 ft away
Level A - Space 4 [Go](#)
- 15 ft away
Level A - Space 5 [Go](#)
- 16 ft away
Level A - Space 6 [Go](#)
- 17 ft away
Level A - Space 7 [Go](#)
- 18 ft away
Level A - Space 8 [Go](#)
- 19 ft away
Level A - Space 9 [Go](#)
- 20 ft away
Level A - Space 10 [Go](#)
- 21 ft away
Level B - Space 1 [Go](#)

Parking Space Map

Level A

A - 01	A - 02	A - 03	A - 04	A - 05
A - 06	A - 07	A - 08	A - 09	A - 10

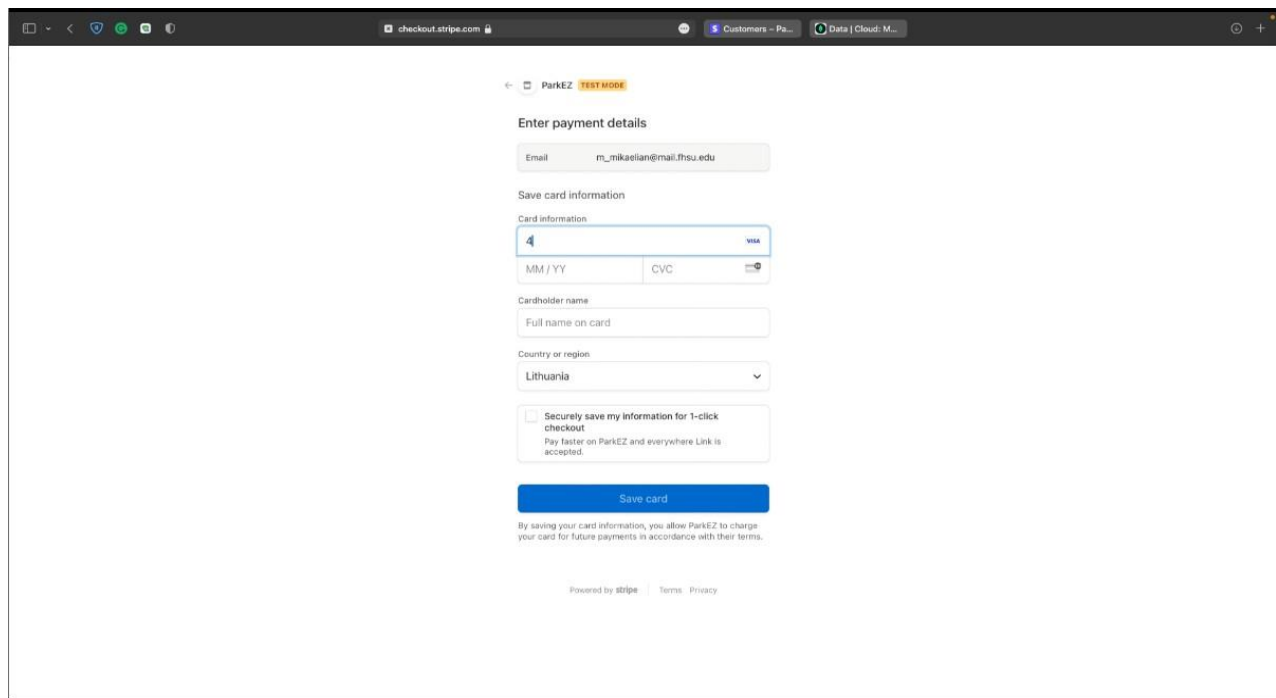
Level B

B - 01	B - 02	B - 03	B - 04	B - 05
B - 06	B - 07	B - 08	B - 09	B - 10

Level C

C - 01	C - 02	C - 03	C - 04	C - 05
C - 06	C - 07	C - 08	C - 09	C - 10

Payment screen.



The Payment screen is a Stripe checkout page for ParkEZ. It includes a back arrow, the ParkEZ logo, and a 'TEST MODE' label. The 'Enter payment details' section contains an email field with 'm_mikaelian@mail.fhsu.edu'. The 'Save card information' section includes a card information field with a Visa logo, MM/YY and CVC fields, a cardholder name field, and a country or region dropdown set to 'Lithuania'. There is a checkbox for 'Securely save my information for 1-click checkout' and a 'Save card' button. At the bottom, there is a disclaimer about saving card information and links for 'Powered by stripe', 'Terms', and 'Privacy'.

← ParkEZ TEST MODE

Enter payment details

Email m_mikaelian@mail.fhsu.edu

Save card information

Card information

4 [VISA](#)

MM / YY CVC [Stripe](#)

Cardholder name

Full name on card

Country or region

Lithuania

☐ Securely save my information for 1-click checkout
Pay faster on ParkEZ and everywhere Link is accepted.

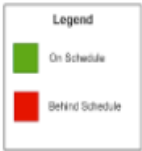
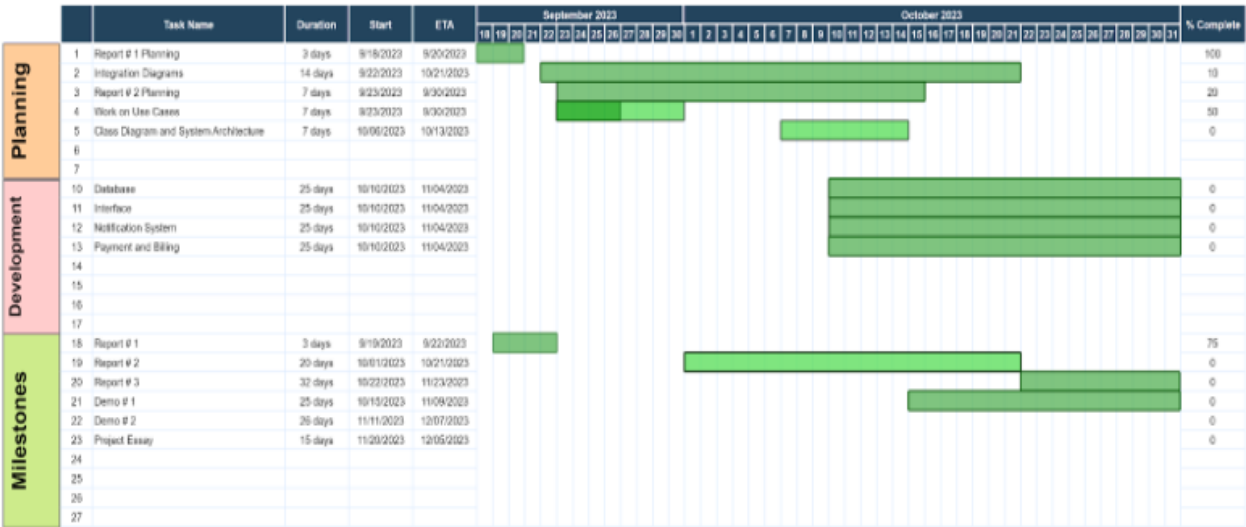
[Save card](#)

By saving your card information, you allow ParkEZ to charge your card for future payments in accordance with their terms.

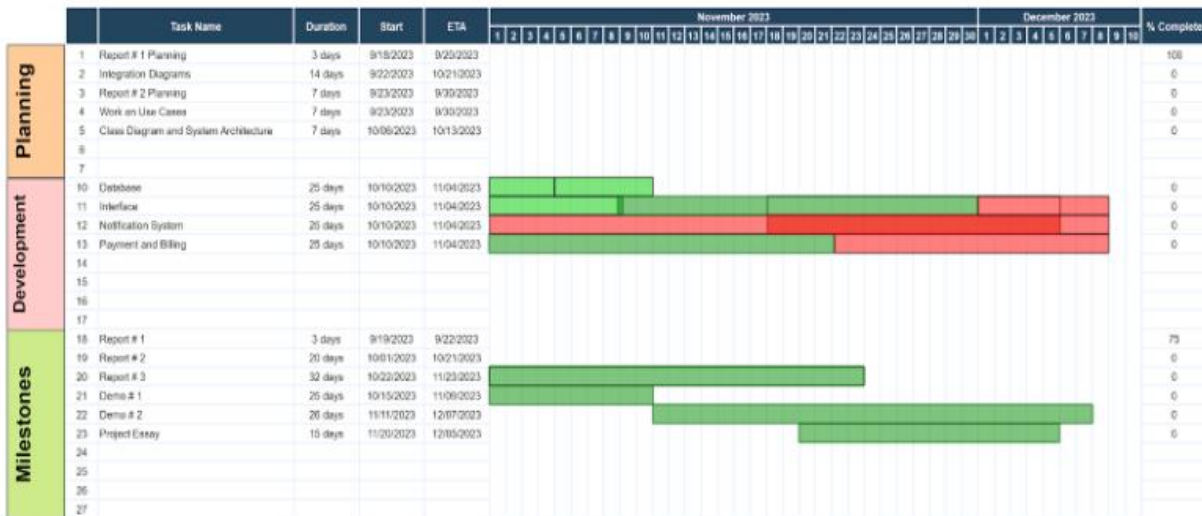
Powered by stripe Terms Privacy

Project Management


ParkeZ Gantt Chart



ParkeEZ Gantt Chart



Legend

 On Schedule

 Behind Schedule

Product Ownership:

Breakdown of Teams	Team Member Assignment	Coordination Activities
Team Pair #1: Benjamin Bylsma Mikael Mikaelian	<p>Benjamin Bylsma</p> <ul style="list-style-type: none">• Customer registration and profile management. <p>Mikael Mikaelian</p> <ul style="list-style-type: none">• Payment processing and billing.	<p>Functionalities: Customer registration and profile management</p> <p>Qualitative Property: Develop an intuitive and user-friendly online registration process that securely stores customer data and reservation data in a database.</p>

		Treatment: Address the problem of user registration complexity and ensure a seamless onboarding experience.
Team Pair # 2: Christopher Smith Adrian Elgin	<p>Christopher Smith</p> <ul style="list-style-type: none"> Real-time parking space availability updates. <p>Adrian Elgin</p> <ul style="list-style-type: none"> Reservation system with confirmation. 	<p>Functionalities: Real-time parking space availability updates by integrating parking space sensors, license plate cameras and customer check-in software.</p> <p>Qualitative Property: Ensure system performance to display availability within Seconds.</p> <p>Treatment: Alleviate the problem of customer frustration due to inefficient parking space searches.</p>
Team Pair # 3: Phongsavanh Mongkhonvilay Geoffrey Sarpong	<p>Phongsavanh Mongkhonvilay</p> <ul style="list-style-type: none"> Integration with security and surveillance. <p>Geoffrey Sarpong</p> <ul style="list-style-type: none"> Automated entry and exit for vehicles. 	<p>Functionalities: Automated entry and exit for vehicles using license plate recognition camera system.</p> <p>Qualitative Property: Develop and evaluate a user-friendly interface for the entry and exit process.</p> <p>Treatment: Resolve the issue of congestion and delays at entry and exit points.</p> <p>Additionally, we will collectively work on payment processing, billing, and the reservation system to enhance overall system efficiency.</p>

References

Marsic, I. (2009). *Software Engineering*. Ivan Marsic.

https://www.ece.rutgers.edu/~marsic/books/SE/book-SE_marsic.pdf.

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<https://www.ece.rutgers.edu/~marsic/books/SE/projects/ParkingLot/ParkingLot.pdf>

Gantt Chart and Use Case Diagram Design: <https://app.diagrams.net/>

Tran, L., Nguyen, K., Choudhury, S., Ngo, T., Nguyen, D., Xiao, Z., Patel, N. (2019).

Blockchain And Docker Assisted Secure Automated Parking Garage System. Ivan Marsic.

<https://www.ece.rutgers.edu/~marsic/books/SE/projects/ParkingLot/2019f-g4-report3.pdf>