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:
Benjamin Bylsma
Adrian Elgin
Mikael Mikaelian
Phongsavanh Mongkhonvilay
Geoffrey Sarpong
Christopher Smith (Team Leader)

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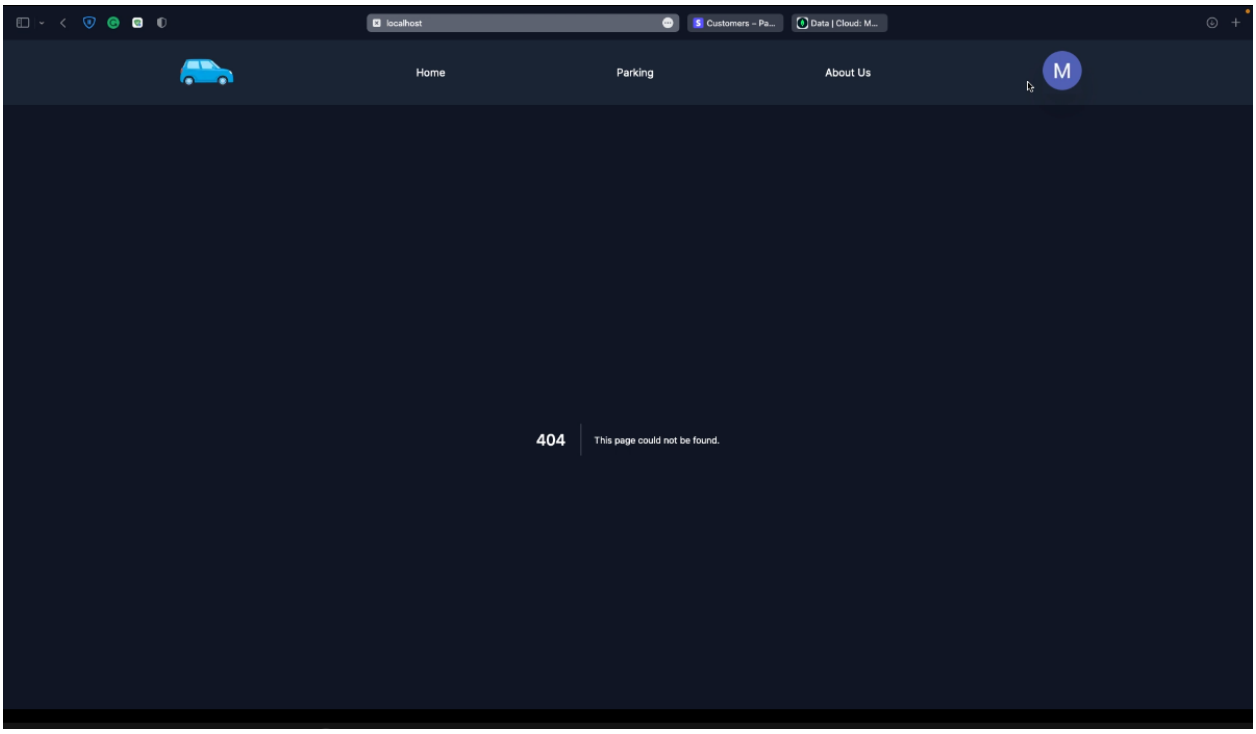
Contribution Breakdown

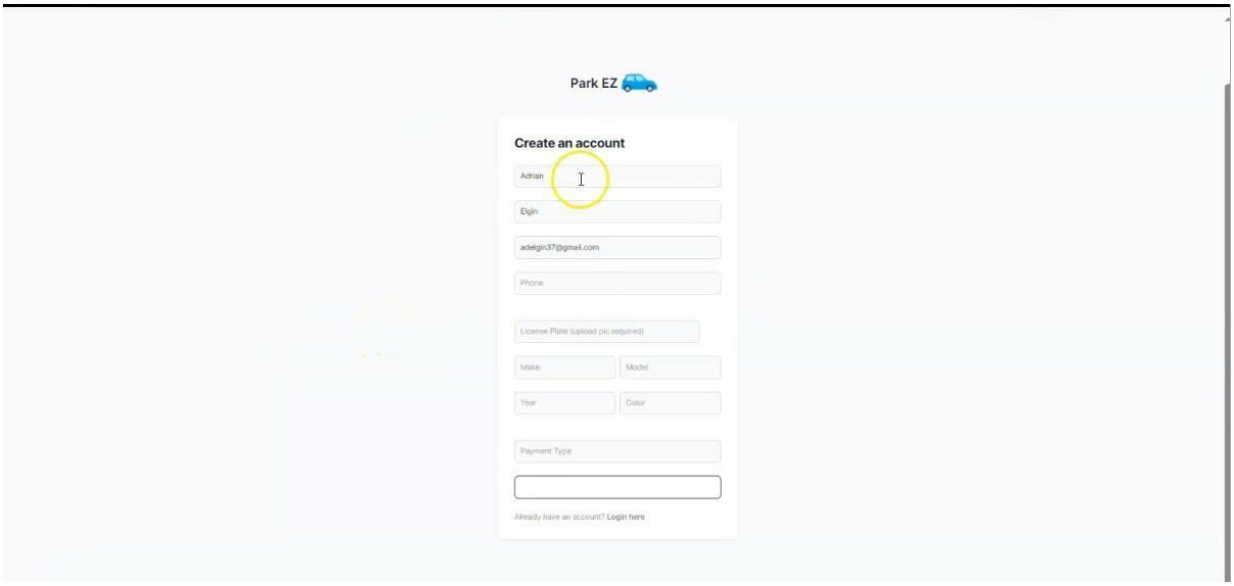
Everyone contributed an equal amount on the Demo 2 video.

Slide Overview

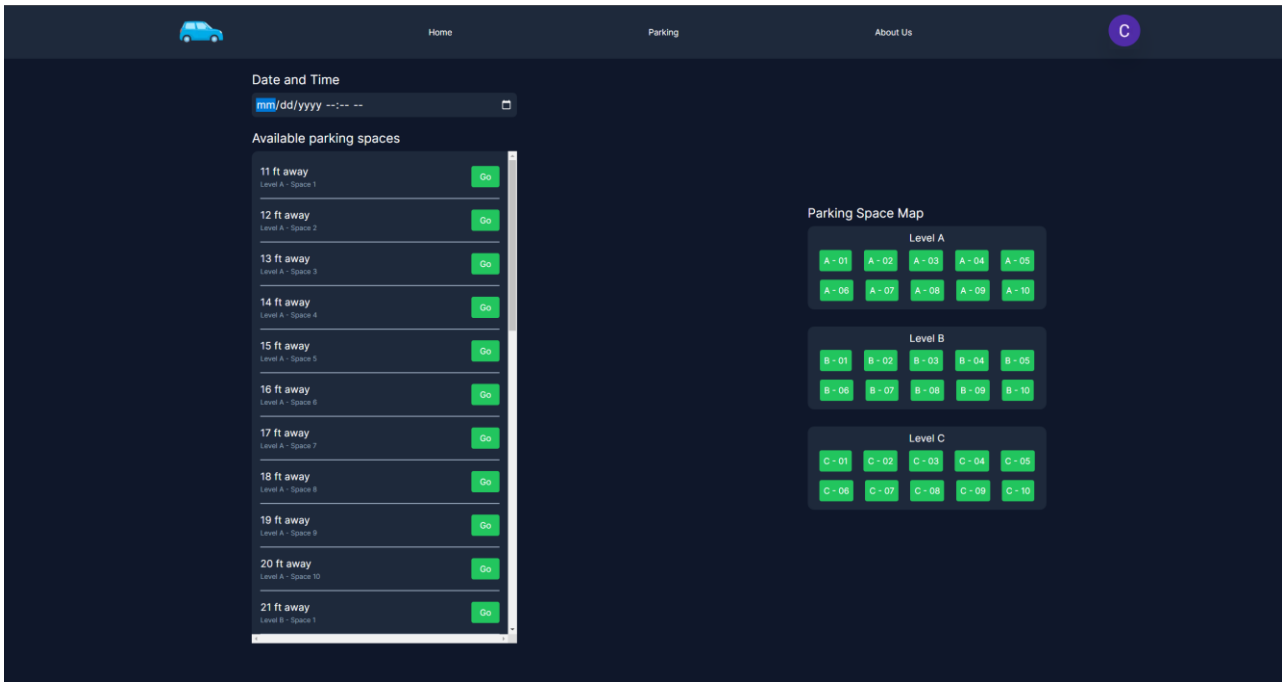
ParkEZ Home Page.



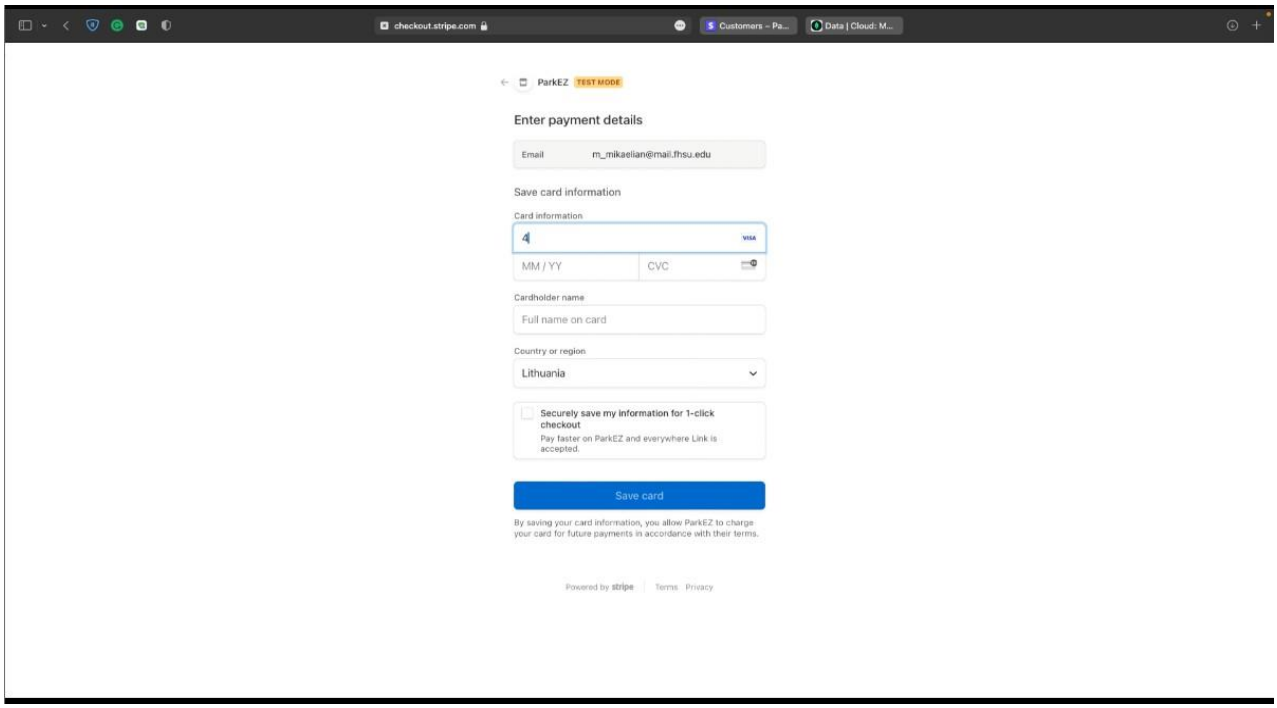
Sign-Up Screen



Reservation Screen

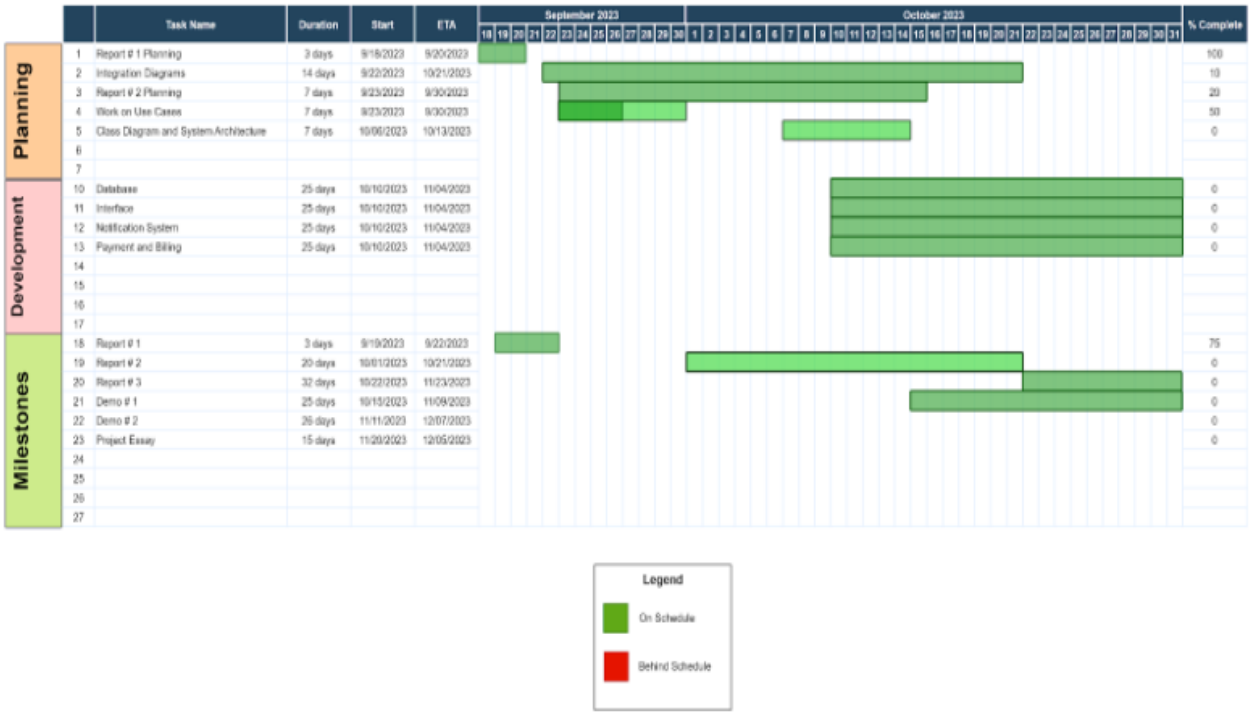


Payment screen.

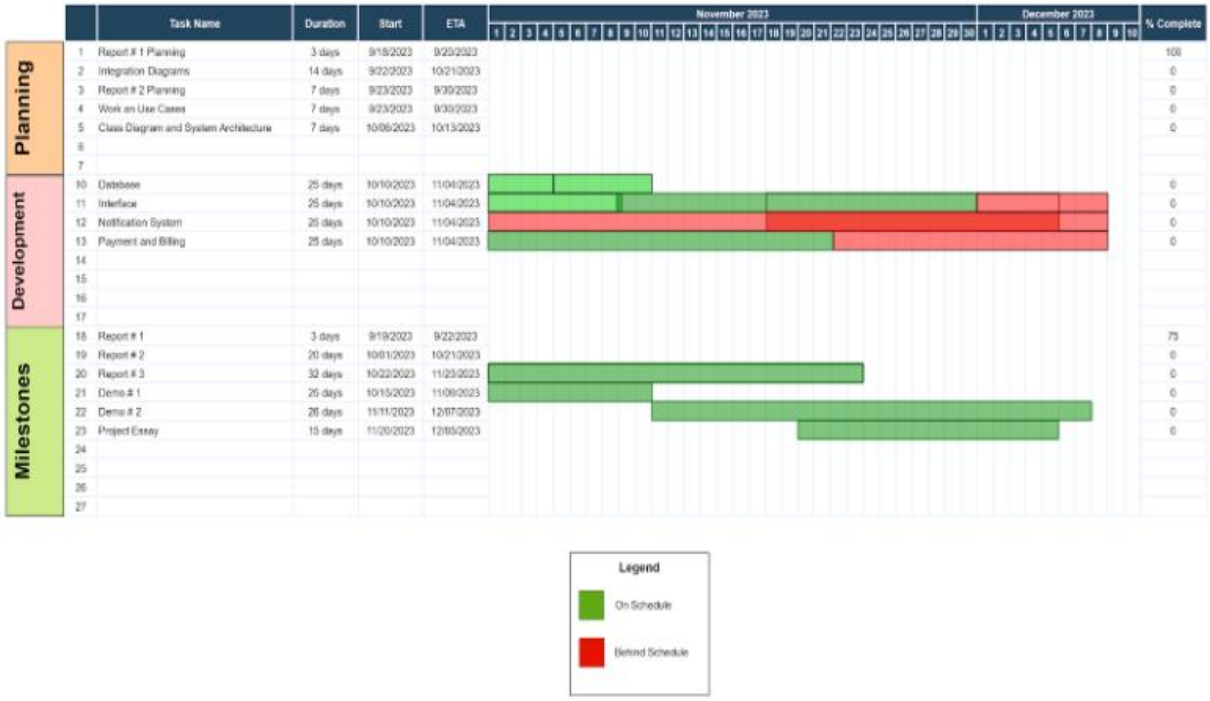


Project Management

ParkEZ Gantt Chart



ParkEZ Gantt Chart



		Task Name	Duration	Start	ETA	% Complete
Planning	1	Report # 1 Planning	3 days	9/18/2023	9/25/2023	100
	2	Integration Diagrams	14 days	9/22/2023	10/21/2023	0
	3	Report # 2 Planning	7 days	9/23/2023	9/30/2023	0
	4	Work on Use Cases	7 days	9/23/2023	9/30/2023	0
	5	Class Diagram and System Architecture	7 days	10/06/2023	10/13/2023	0
	6					
	7					
Development	10	Database	25 days	10/10/2023	11/04/2023	0
	11	Interface	25 days	10/10/2023	11/04/2023	0
	12	Notification System	25 days	10/10/2023	11/04/2023	0
	13	Payment and Billing	25 days	10/10/2023	11/04/2023	0
	14					
	15					
	16					
	17					
Milestones	18	Report # 1	3 days	9/19/2023	9/22/2023	75
	19	Report # 2	20 days	10/01/2023	10/21/2023	0
	20	Report # 3	32 days	10/22/2023	11/23/2023	0
	21	Demo # 1	25 days	10/15/2023	11/09/2023	0
	22	Demo # 2	26 days	11/11/2023	12/07/2023	0
	23	Project Essay	15 days	11/20/2023	12/05/2023	0
	24					
	25					
	26					
	27					

Product Ownership:

Breakdown of Teams	Team Member Assignment	Coordination Activities
Team Pair #1: Benjamin Bylsma Mikael Mikaelian	Benjamin Bylsma • Customer registration and profile management. Mikael Mikaelian • Payment processing and billing.	Functionalities: Customer registration and profile management Qualitative Property: Develop an intuitive and user-friendly online registration process that securely stores customer data and reservation data in a database.

		Treatment: Address the problem of user registration complexity and ensure a seamless onboarding experience.
Team Pair # 2: Christopher Smith Adrian Elgin	Christopher Smith • Real-time parking space availability updates. Adrian Elgin • Reservation system with confirmation.	Functionalities: Real-time parking space availability updates by integrating parking space sensors, license plate cameras and customer check-in software. Qualitative Property: Ensure system performance to display availability within Seconds. Treatment: Alleviate the problem of customer frustration due to inefficient parking space searches.
Team Pair # 3: Phongsavanh Mongkhonvilay Geoffrey Sarpong	Phongsavanh Mongkhonvilay • Integration with security and surveillance. Geoffrey Sarpong • Automated entry and exit for vehicles.	Functionalities: Automated entry and exit for vehicles using license plate recognition camera system. Qualitative Property: Develop and evaluate a user-friendly interface for the entry and exit process. Treatment: Resolve the issue of congestion and delays at entry and exit points. Additionally, we will collectively work on payment processing, billing, and the reservation system to enhance overall system efficiency.

References

Marsic, I. (2009). *Software Engineering*. Ivan Marsic. https://www.ece.rutgers.edu/~marsic/books/SE/book-SE_marsic.pdf.

Marsic, I. (2009). *Software Engineering Course Project Parking Garage / Lot*. Ivan Marsic. 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