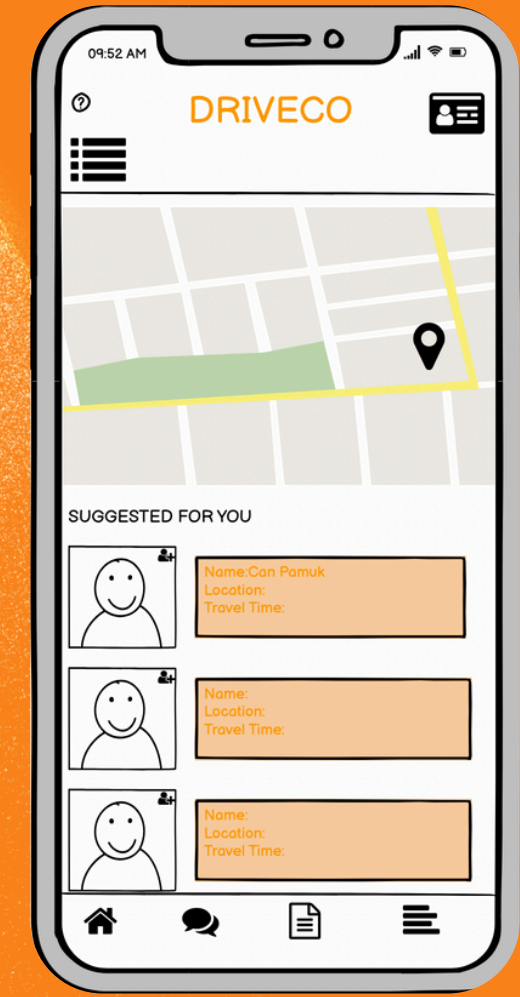


DRIVECO : RIDE-SHARING APP FOR IUE STUDENTS

SAFE, CONVENIENT, AND
AFFORDABLE CAMPUS
TRANSPORT

Yunus Erdem Gökdağ
Deniz Yetiş
Elif Göksu Sümer

Fatih Anamaslı
Selin Gilgil
Bade Balcı



Functional Requirements

- User registration and login interfaces.
- ID verification at registration.
- Messaging and appointment creation.
- Offer prices for rides.
- Fetch student data from IUE.
- Access users' location.
- Help button for emergency police notification.
- Money transfer tool.
- Create discount coupons.
- Phone number verification via SMS.

Non-Functional Requirements

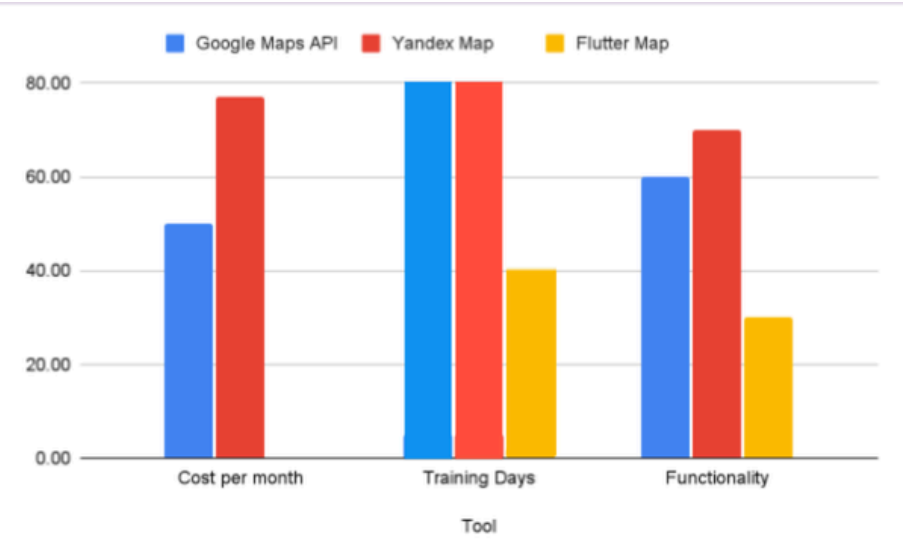
- Securely store user data.
- Robust ID and phone verification.
- Keep user location confidential.
- User-friendly interface.
- Compatibility with Android, iOS, and web browsers.
- Handle IUE student volume.
- Regular backups to prevent data loss.
- Optimize server response times.

Software Tool Selection

Software Tools For Map API:

Normalized Cost/Training/Functionality Data

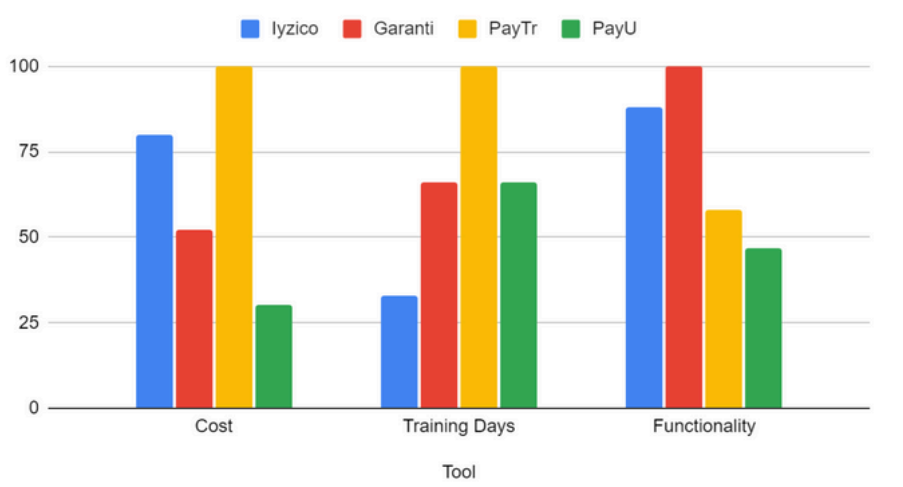
Tool	Google Maps API	Yandex Map API	Flutter Map package	
Cost	65	100	0	
Training Days	100	100	40	
Functionality	100	75	68	



Software Tools For Payment:

Normalized Cost/Training/Functionality Data

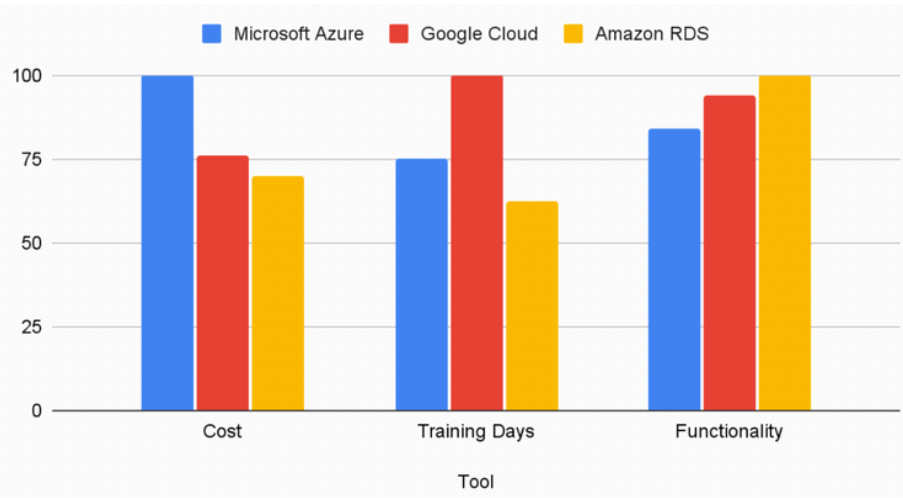
Tool	Iyzico	Garanti	PayTr	PayU
Cost	79.8	52	100	30
Training Days	75	100	50	50
Functionality	88	100	70	64



Software Tools For Server & Database:

Normalized Cost/Training/Functionality Data

Tool	Microsoft Azure	Google Cloud	Amazon RDS	
Cost	100	76	70	
Training Days	75	100	62.5	
Functionality	94	100	84	



Necessary Needs From The Organizational Process

- Efficient Management of the Development Process
- Permission from IUE
- Rapid Adaptation to Requirement Changes
- Flexible Planning Based on Feedback
- Establishing Sponsorship Agreements
- Ongoing Feedback and Iterative Improvement

Software Process Model : Scrum

- Sprint 1: Project Setup and User Authentication
- Sprint 2: Messaging and Appointment Creation
- Sprint 3: Location Services and Map Integration
- Sprint 4: Payment System and Security Enhancements
- Sprint 5: User Interface and Compatibility
- Sprint 6: Testing and Deployment

Questions to Identify Measurements

- How close are we to reaching the targeted deadline?
- How much of our budget have we consumed?
- How much of our requirement list were we able to add to our project?
- How many of the set milestones have we reached?
- How many of the sprints we determined have we completed?

Identified Measurements

- The time difference between actual and planned activities will be calculated to evaluate the achievement of the target deadline
- The amount we spent including the software team since the beginning of the project.
- The implementation status of the functional and non-functional requirements in our requirements list into our project
- How many of the predetermined milestones were passed without any problems.
- The completion status of sprints will be determined by examining sprint deliveries.

Measurement Storage and Collection

- The number of days remaining until the deadline
- Finding the used portion of the amount initially set for the budget
- The status of implementation of the requirements determined for the project.
- Achievement of milestones determined at the beginning of the project.
- The number of completed sprints.

Measurement Type

- Time Management
- Budget Management
- Requirement Process
- Quality Control
- Milestone Process
- Sprint Process

Software Stakeholders

- Sponsorships/Izmir Chamber of Commerce
- Product Owner
- DRIVECO Users
- Izmir University of Economics
- Competitors
- Bank
- Emergency Services
- Staff and Managers
- Government

Combined Rank Project Risks

- Hardware / Operating System
- Database - Data Storage Problems
- Safety Issues
- Scheduling
- Unavailability of Sponsor
- Limited Resources
- Communication Difficulties
- Budget Control
- Changing Requirements

Software Needs

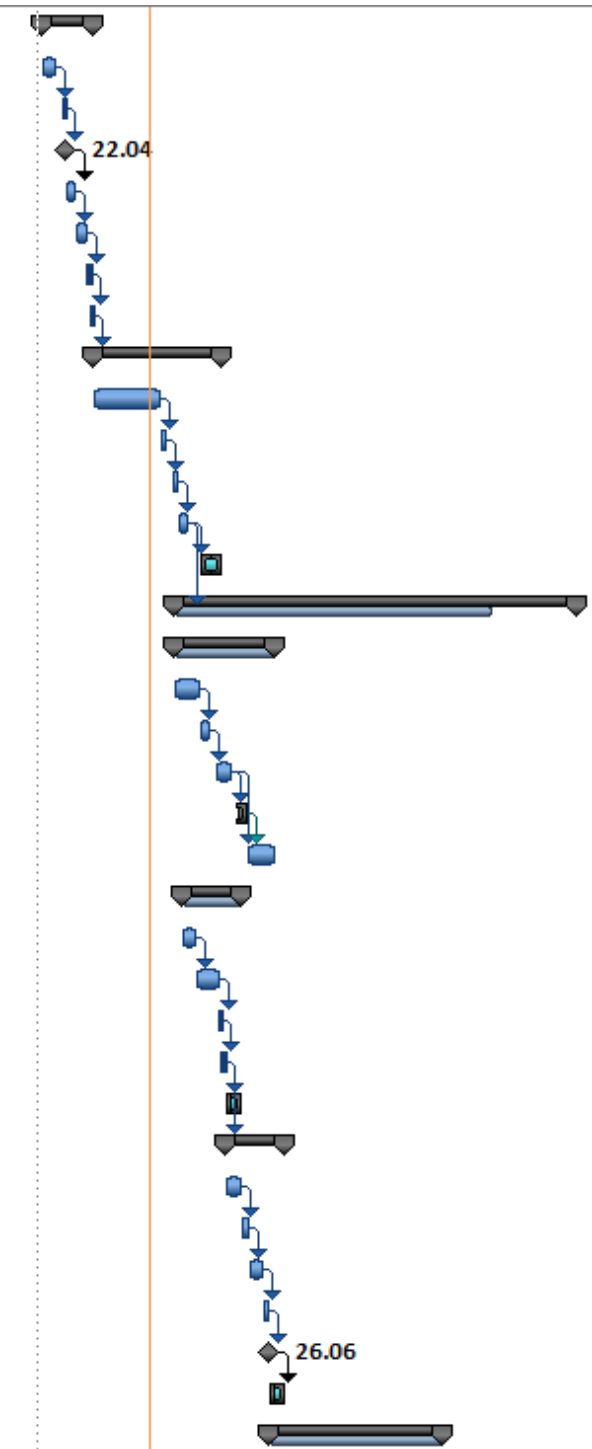
- Server-Based Database
- User Interface (UI) and User Experience (UX) Design
- API (Application Programming Interface)
- Real-Time Notifications
- Data Analytics and Monitoring
- Google Maps
- Project Management Tools and Programming Languages

Hardware And Support Needs

- Servers
- Computers
- Maintain Supports
- Security Support
- Data Backup and Recovery
- Performance and Scalability Support

Project Schedule

		13 days	Mon 15.04.24	Wed 1.05.24		
🔗	📅 Planning					
🔗	Backlog Investigation	5 days	Mon 15.04.24	Fri 19.04.24		
🔗	Analyze Requirements	1 day?	Mon 22.04.24	Mon 22.04.24	2	
🔗	validation of Requirements	0 days	Mon 22.04.24	Mon 22.04.24	3	
🔗	Setting Sprint Goals	3 days	Tue 23.04.24	Thu 25.04.24	4	
🔗	Work Estimation	2 days	Fri 26.04.24	Mon 29.04.24	5	
🔗	Creating a Sprint Plan	1 day	Tue 30.04.24	Tue 30.04.24	6	
🔗	Prepare Reports	1 day	Wed 1.05.24	Wed 1.05.24	7	
🔗	📅 Designing	29 days	Thu 2.05.24	Tue 11.06.24	8	
🔗	Database Design	15 days	Thu 2.05.24	Wed 22.05.24		
🔗	UML Design Creation	2 days	Thu 23.05.24	Fri 24.05.24	10	
🔗	Architectural Design	2 days	Mon 27.05.24	Tue 28.05.24	11	
🔗	User Interface Design	3 days	Wed 29.05.24	Fri 31.05.24	12	
📌	Testing	5 days	Wed 5.06.24	Tue 11.06.24	13	
📌	📅 Development	93 days	Tue 28.05.24	Thu 3.10.24	13	
📌	📅 Messaging and Appointment Creation	24 days	Tue 28.05.24	Fri 28.06.24		
🔗	Implement messaging functionality between users.	6 days	Tue 28.05.24	Tue 4.06.24		
🔗	Develop appointment creation feature.	3 days	Wed 5.06.24	Fri 7.06.24	17	
🔗	Store appointment information securely.	5 days	Mon 10.06.24	Fri 14.06.24	18	
📌	Testing	3 days	Mon 17.06.24	Wed 19.06.24	19	
🔗	Allow users to filter appointments by time, day, and price.	7 days	Thu 20.06.24	Fri 28.06.24	19;20	
📌	📅 Location Services and Map Integration	13 days	Thu 30.05.24	Mon 17.06.24		
🔗	Implement location services for users.	3 days	Thu 30.05.24	Mon 3.06.24		
🔗	Integrate map functionality to show active appointments.	5 days	Tue 4.06.24	Mon 10.06.24	23	
🔗	Show routes to destination points.	1 day	Tue 11.06.24	Tue 11.06.24	24	
🔗	Calculate estimated arrival time and cost.	1 day	Wed 12.06.24	Wed 12.06.24	25	
📌	Testing	3 days	Thu 13.06.24	Mon 17.06.24	26	
🔗	📅 Project Setup and User Authentication	13 days	Thu 13.06.24	Mon 1.07.24	26	
🔗	Set up project environment and version control.	3 days	Thu 13.06.24	Mon 17.06.24		
🔗	Implement user registration and login interfaces.	3 days	Tue 18.06.24	Thu 20.06.24	29	
🔗	Implement ID verification for user registration.	2 days	Fri 21.06.24	Mon 24.06.24	30	
🔗	Implement phone number verification through SMS.	2 days	Tue 25.06.24	Wed 26.06.24	31	
🔗	Ensure secure storage of user data.	0 days	Wed 26.06.24	Wed 26.06.24	32	
📌	Testing	3 days	Thu 27.06.24	Mon 1.07.24	33	
📌	📅 Payment System and Security Enhancements	40 days	Thu 27.06.24	Wed 21.08.24		



Project Schedule

🚀	▢ Payment System and Security Enhancements	40 days	Thu 27.06.24	Wed 21.08.24		
🔄	Implement an online payment system.	8 days	Thu 27.06.24	Mon 8.07.24		
🔄	Ensure secure storage of payment details.	3 days	Tue 23.07.24	Fri 26.07.24	36	
🔄	Implement an algorithm for matching students with similar schedules.	10 days	Mon 29.07.24	Fri 9.08.24	37	
🔄	Enhance security features, such as blocking users and emergency help buttons.	5 days	Mon 12.08.24	Fri 16.08.24	38	
🚀	Testing	3 days	Mon 19.08.24	Wed 21.08.24	39	
🚀	▢ User Interface and Compatibility	16 days	Sat 17.08.24	Fri 6.09.24	39	
🔄	Design and implement user-friendly interface.	8 days	Mon 19.08.24	Wed 28.08.24		
🔄	Implement light and dark mode options.	3 days	Thu 29.08.24	Mon 2.09.24	42	
🔄	Ensure compatibility with Android and iOS.	0 days	Mon 2.09.24	Mon 2.09.24	43	
🔄	Optimize server response times for smooth user experience.	4 days	Tue 3.09.24	Fri 6.09.24	44	
🚀	▢ Testing	27 days	Sat 7.09.24	Mon 14.10.24	45	
🔄	Conduct unit testing	5 days	Mon 9.09.24	Fri 13.09.24		
🔄	User acceptance testing	3 days	Mon 16.09.24	Wed 18.09.24	47	
🔄	Compatibility Testing	3 days	Thu 19.09.24	Mon 23.09.24	48	
🔄	Bug fixing and optimization	10 days	Tue 24.09.24	Mon 7.10.24	49	
🔄	Load Testing	5 days	Tue 8.10.24	Mon 14.10.24	50	
🔄	Deployment	0 days	Mon 14.10.24	Mon 14.10.24	51	
🚀?						
🚀?						

