

IOWA ADVENTURE CYCLIST COURSE CREATOR

**LIGHTNING TALK:
DESIGN CHECK-IN**

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PROJECT OVERVIEW

**THE CREATION OF A MAPPING
APPLICATION FOR CYCLISTS THAT CAN:**



**Use mapping utility
to create routes that
can be exported to
GPS devices or other
applications**



**Identify different
types of road
surfaces and
elevations of
intended route**



**Identify average
traffic flow of
intended route**



**Identify potential
roadblocks and
safety hazards**



HUMAN FOCUSED SUITABILITY

USER NEEDS ADDRESSED:



Customizable Routes:

Users can tailor routes based on preferences like distance, terrain, and real-time conditions, enhancing the relevance of suggested paths.



User-Friendly Interface:

Designed for accessibility, the app supports cyclists of all skill levels with an intuitive layout and clear instructions.



Social Features:

Enables users to share routes, track rides, and engage with friends, fostering community and motivation.



HUMAN FOCUSED SUITABILITY

POTENTIAL IMPROVEMENTS:



Simplified Onboarding:

Streamline the initial setup process to help users start quickly and reduce the learning curve for new or less tech-savvy cyclists.



Enhanced Data Privacy Settings:

Include options for managing data visibility, reassuring users about the security of their cycling information and addressing privacy concerns.



ECONOMIC-FOCUSED SUITABILITY

POTENTIAL IMPROVEMENTS:

1 FREE AND ACCESSIBLE:

Unlike many cycling apps that require subscriptions, this app is free, making it accessible to a broader audience without financial barriers.

2 ADVANCED ROUTE CUSTOMIZATION:

Users can create personalized routes based on preferences such as terrain, traffic, and time of day, offering a level of customization not commonly available in competitor apps.

3 REAL-TIME DATA INTEGRATION:

By incorporating real-time road and traffic data from sources like Iowa DOT, the app provides more accurate, up-to-date routing information, which improves user safety and optimizes travel times.

4 SOCIAL AND COMMUNITY FEATURES:

Allows users to connect, share routes, and track each other's progress, adding a social element that promotes engagement and a sense of community among cyclists.

ECONOMIC-FOCUSED SUITABILITY

DRAWBACKS AND MITIGATION:

1 DATA ACCURACY VARIABILITY:

Real-time data can be occasionally unreliable, which may lead to inaccurate route recommendations.

Mitigation: Implement user-generated reports to flag inaccurate data, with periodic updates and notifications for known issues

2 PRIVACY CONCERNS:

Some users may be concerned about data collection and sharing practices, particularly regarding location and ride data.

Mitigation: Introduce transparent privacy settings that allow users to control data sharing and visibility. Provide clear communication on how data is used and secured.

TECHNICAL-FOCUSED SUITABILITY

COMPLEXITY JUSTIFICATION:

BACKEND:

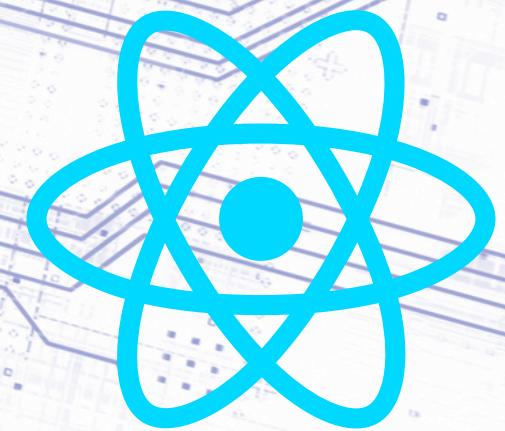
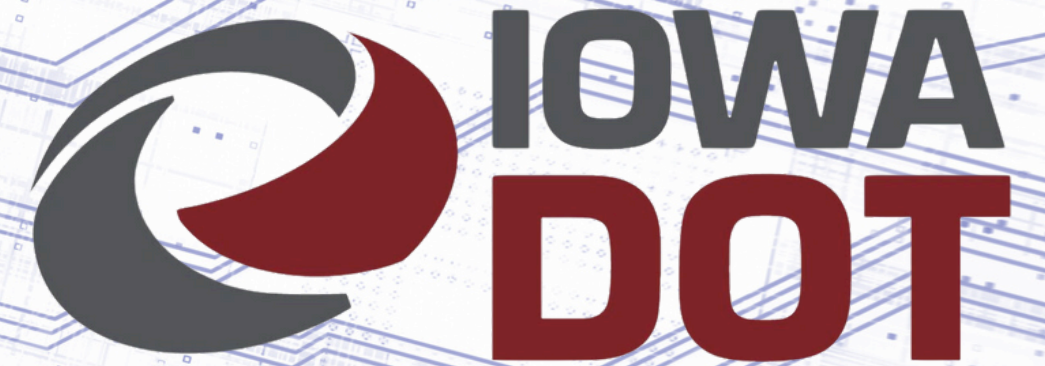
Node.js with MySQL for robust data handling and storage

API:

Integration with Iowa DOT API for real-time data sourcing

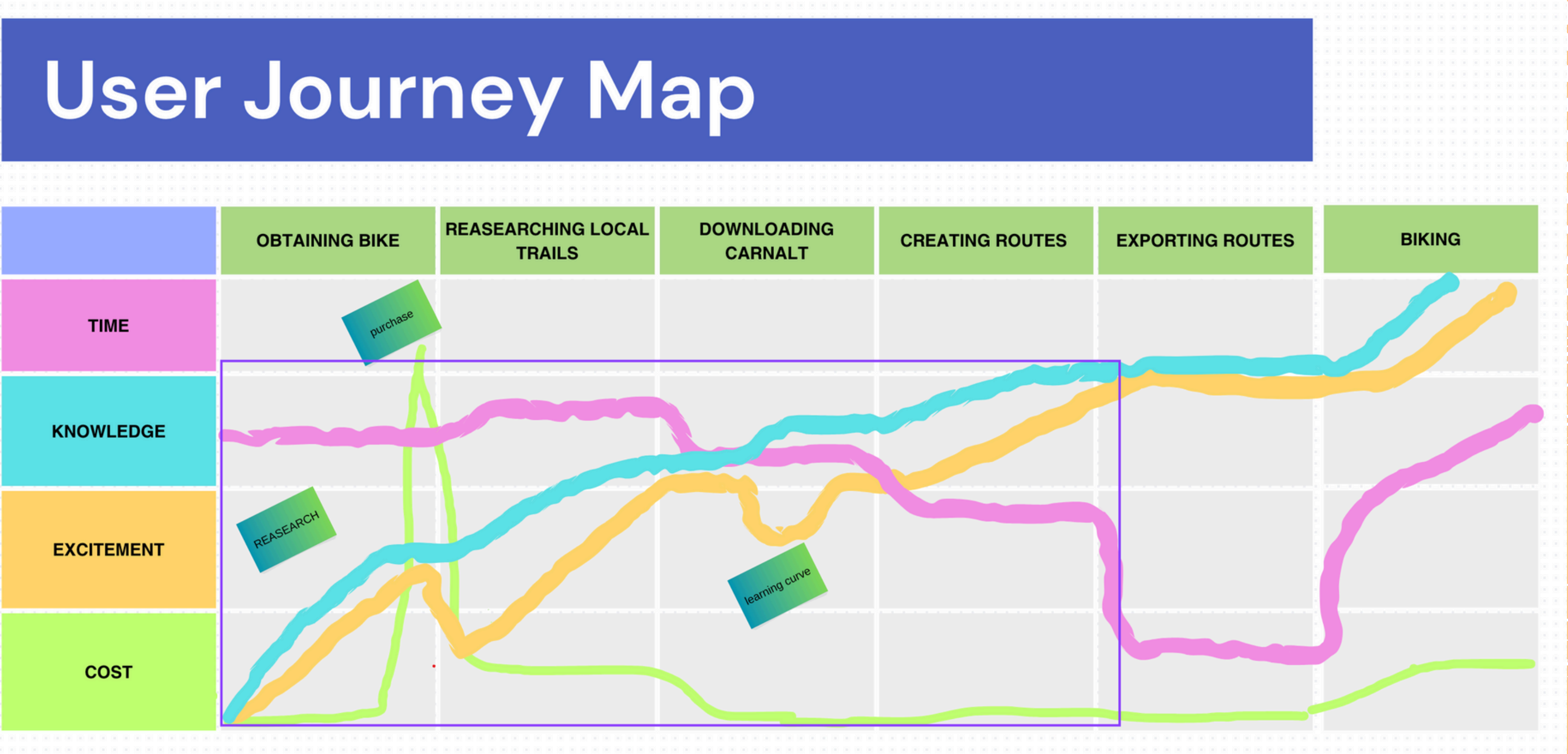
FRONTEND:

React Native for seamless cross-platform experience



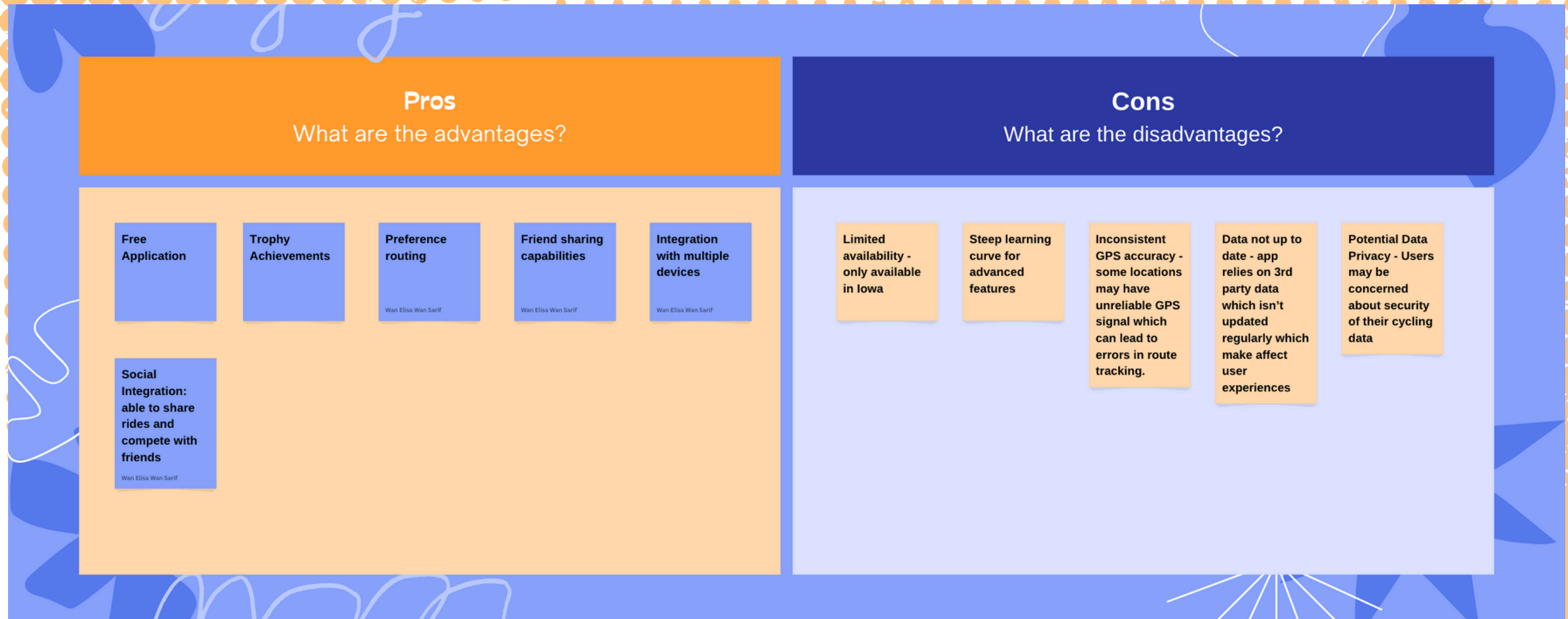
ARTIFACTS

JOURNEY MAP:



ARTIFACTS

PROS/CONS TABLE:



AREAS OF CONCERN AND DEVELOPMENT



Economic Concerns:

- **Budget Constraints for Real-Time Data**
- **Potential for Revenue Generation**



Technical Challenges:

- **Cross-Platform Consistency**
- **GPS and Data Accuracy**



Human concerns

- **User Privacy and Data Security**
- **User Experience**

CONCLUSION

In conclusion, our cycling app combines customizable routing, social sharing, and real-time tracking to meet cyclists' needs for convenience and connectivity.

We've chosen cross-platform technology and GPS integration for broad accessibility, while addressing challenges like GPS accuracy and data privacy with transparent options and budget-friendly data sources.

Moving forward, we'll refine onboarding, incorporate user feedback, and continue prioritizing privacy to enhance the app's usability and community impact. This approach ensures an innovative yet practical solution that aligns with cyclists' needs.





QUESTIONS?

