Project Requirements Document: Waze

BI Analyst: Melissa Slawsky, Business Intelligence Analyst

Client/Sponsor: Waze

Purpose: Waze aims to analyze patterns of user retention and behavioral insights to optimize its navigation app performance and enhance user experience. This will help leaders understand the effectiveness of user engagement strategies, identify which usage patterns indicate highest churn risk, and determine which user segments require immediate retention intervention. The goal is to explore trends in user behavior to identify why users stop using the app and how to improve overall platform engagement to prevent churn.

Key dependencies:

- Access to user behavior data
- Data privacy compliance
- Real-time platform metrics
- Historical churn data

Stakeholders:

Harriet Hadzic, Director of Data Analysis

- Final approval on model implementation
- Strategic oversight of analysis direction

May Santner, Data Analysis Manager

- Project workflow management
- Analysis methodology approval

Emrick Larson, Finance and Administration Department Head

- Business impact assessment
- Resource allocation approval

Ursula Sayo, Operations Manager

- Platform operations insights
- Implementation feasibility

Team members:

Chidi Ga, Senior Data Analyst

- Lead data analysis
- EDA and data cleaning oversight

Sylvester Esperanza, Senior Project Manager

- Project timeline management
- Stakeholder communication
- Deliverable tracking

Stakeholder requirements:

- R: Must include data on user activity metrics, driving patterns, device types, and session frequency
- R: Dashboard needs to be accessible, with large print and text-to-speech alternatives
- D: Should show trends in user retention by onboarding date
- D: Should include a breakdown of churn by device type and usage patterns
- D: Must provide visualizations of user engagement trends by week, month, quarter, and year

Success criteria:

- Dashboard demonstrates an understanding of the team's goal to reduce churn rate by improving user engagement and platform optimization
- Stakeholders can easily identify behavioral patterns leading to user churn
- Dashboard provides clear insights into user retention across different segments
- Stakeholders can view trends by week, month, quarter, and year

User journeys: The primary users of this dashboard will be the stakeholders and team members. Their journey in using the dashboard might look like this:

1. User logs into the dashboard system
2. User selects the Waze User Retention dashboard
3. User views the main dashboard, which provides an overview of churn trends
4. User interacts with the dashboard to explore specific areas of interest: a. Analyze churn

rates by user onboarding date b. Examine user behavior by device type and usage patterns c. View retention trends over different time periods (week, month, quarter, year)

5. User applies filters or selects specific data points for deeper analysis
6. User interprets the data to answer key questions:
    - What is the current churn rate and how is it trending?
    - Which usage patterns indicate highest churn risk?
    - What user segments show the strongest retention?
7. User may export or share specific insights with team members
8. User uses the insights gained to inform decision-making about:
    - User engagement strategies
    - Platform optimization
    - Retention interventions
    - Feature development priorities

Department-specific considerations and permissions:

1. **Data Analysis Leadership** (Harriet Hadzic, Director of Data Analysis)
    - Primary focus: Overall trends in user retention, model performance
    - Key metrics: Churn rate, retention rate, model accuracy
    - Permissions: Full access to all data and metrics
    - Specific needs: Ability to evaluate model performance and business impact
2. **Data Analysis Management** (May Santner, Data Analysis Manager)
    - Primary focus: Cross-departmental overview, project workflow tracking
    - Key metrics: Overall churn trends, user segment comparisons
    - Permissions: Full access to all data and metrics
    - Specific needs: Ability to generate comprehensive reports for stakeholder meetings
3. **Data Analysis Team** (Chidi Ga, Senior Data Analyst)
    - Primary focus: Detailed data analysis, model maintenance and updates
    - Key metrics: All metrics, with focus on data quality and model integrity
    - Permissions: Full access to all data, metrics, and backend systems
    - Specific needs: Access to raw data, ability to modify model parameters

4. **Operations Team** (Ursula Sayo, Operations Manager)
    - Primary focus: Platform performance, efficiency improvements
    - Key metrics: User engagement metrics, device usage patterns
    - Permissions: Access to aggregated data, limited access to individual user details
    - Specific needs: Ability to view trends over time to inform platform decisions
5. **Finance & Administration** (Emrick Larson, Department Head)
    - Primary focus: Business impact of user churn
    - Key metrics: Retention rates, user segment performance
    - Permissions: Access to aggregated data related to business metrics
    - Specific needs: Ability to analyze financial impact of churn patterns

Key considerations for permissions and access:

- Ensure that personal or sensitive user information is not accessible
- Implement role-based access control (RBAC) to manage permissions effectively
- Provide a way for leadership to temporarily access detailed views if needed
- Consider creating custom dashboard views for each department
- Ensure that any exported or shared data maintains appropriate privacy controls

Dashboard users: Harriet Hadzic, May Santner, Chidi Ga, Sylvester Esperanza, Ursula Sayo, Emrick Larson

Assumptions:

- The provided dataset is a reliable representation of actual user behavior
- The metrics (sessions, drives, kilometers driven) cover all relevant aspects of user engagement
- Device types (iPhone, Android) represent all platform users

Compliance and privacy:

- The dataset is already anonymized and approved for use
- User identifiers are anonymized
- Personal location data is aggregated

Accessibility: Dashboard must be accessible. Must have large print and text-to-speech alternatives. **Further context may be needed - follow-up with May Santner recommended.**

Roll-out plan: Project timeline based on provided milestones. **Further context may be needed - follow-up with Sylvester Esperanza recommended.**

Week 1: Data exploration and cleaning

Week 2-3: Feature engineering and initial model development

Week 3: Dashboard development and visualization creation

Week 4: Model refinement and stakeholder review

Week 5: Final implementation and documentation