

Assignment 1

Sam Mirbaha Hashemi
Student – EPPS 6323.001 - Knowledge Mining - S25
Sxm220180@utdallas.edu

Instructor: Dr. Karl Ho

Abstract

Brainstorm

1. Propose a Hypothesis

Analyzing user feedback from diverse sources (such as app reviews, support tickets, and social media comments) will reveal recurring themes and sentiment patterns that correlate with specific usability issues. Addressing these issues, based on data-driven insights, will lead to measurable improvements in user satisfaction and overall user experience.

2. How data can be collected?

For data collection, I plan to gather user feedback from multiple channels to ensure a diverse dataset. This will involve using APIs from app stores such as Google Play and the Apple App Store to collect reviews and ratings. Additionally, I will utilize public APIs from social media platforms like Twitter and Reddit to gather spontaneous user opinions and discussions about the product. Finally, I will distribute online surveys through tools like Google Forms or SurveyMonkey to obtain structured feedback directly from users. This multi-source approach will help ensure that the dataset is comprehensive and representative of the overall user experience.

3. What methods could be considered?

Cleaning:

Remove noise, convert text to lowercase, and eliminate duplicate entries.

Visualization:

Creating interactive dashboards using tools such as Tableau, Power BI, or web-based visualization libraries (e.g., D3.js) to display trends, topic distributions, and keyword frequencies.

4. How to start the data project?

To start, I'll define clear objectives and key questions. such as identifying recurring usability issues and tracking sentiment trends in user feedback. I'll then gather data from sources like app reviews, support tickets, social media, and surveys. I'll begin with a small sample to test and refine my data extraction and cleaning methods. Once the data pipeline is validated, I'll scale up and apply techniques like sentiment analysis and topic modeling to generate actionable UX insights.