LoveLogic – Milestone 2

Rania Hatrouhou Leïla Benjelloun Yassine Chami Khazraji

Project Goal

LoveLogic is an interactive data visualization platform that uncovers patterns and insights from dating app usage. By analyzing user demographics, behaviors, and interests, the platform helps users and researchers better understand how people engage in modern digital dating. The goal is to present this data through engaging, intuitive, and informative visualizations.
Website deployment : `https://love-logic-raniahtr-ranias-projects-cea5148e.vercel.app`

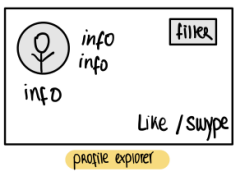
Motivation Storytelling

LoveLogic aims to go beyond stats and charts, it tells the story of modern dating. Starting with who's on dating apps, moving through how they behave and what they care about, each visualization builds on the last to reveal patterns in how people connect. The journey ends with a playful challenge through the Swipe Game, turning insights into interaction. Together, the visuals form a cohesive narrative about love in the digital age.

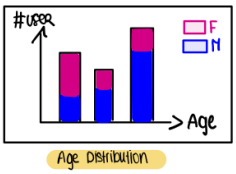
Sketches of Visualizations

Below are hand-drawn sketches that illustrate the layout and interaction design of key visualizations and features:

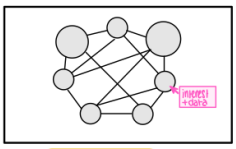
- **Profile Explorer:** A card-style browser with avatar, interests, filters, and swipe actions.
- **Age Distribution:** Stacked bar chart comparing gender and goal types across age.
- **Interest Cloud:** Word cloud sized by popularity, clickable for demographic splits.
- **Usage Patterns:** Grouped bar chart or heatmap of session frequency and swipes.
- **Relationship Goals:** Pie chart showing distribution across user segments.
- **Advanced Filtering:** Allows users to set multiple filters (e.g., age, education, goals), then shows the percentage of users matching each filter combination.
- **Swipe Game:** A gamified interface with true/false swipe interaction on behavioral claims.



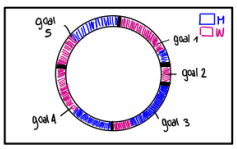
profile explorer



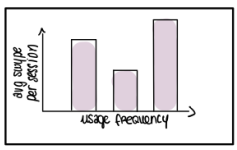
Age Distribution



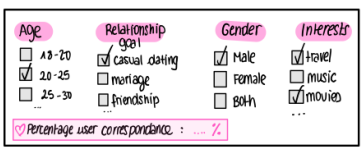
interest cloud



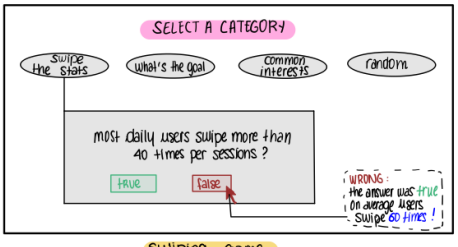
relationship goals



usage pattern



Advanced filtering



swiping game

Visualization	Tools	Lectures	Justification
Profile Explorer	React, Framer Motion	5.1, 5.2, 12.1	Smooth transitions and interactive exploration; story-driven navigation inspired by storytelling concepts.
Swipe Game	React, Framer Motion	5.1, 5.2, 12.1	Engaging quiz-style interaction using swiping metaphor; ideal for reinforcing key data insights in a playful, story-aligned format.
Age Distribution	Nivo (Bar), Framer Motion	4.2, 6.2, 7.1, 12.1	Bar charts using length/position encode age groups well; effective design guided by Munzner's principles and storytelling flow.
Interest Cloud	React-Wordcloud / D3	4.1, 4.2, 6.2, 12.1	Frequency mapped via word size; interaction and categories enhance exploration, linked to narrative structure.
Interest Network	Nivo (Network), D3	4.2, 5.2, 10, 12.1	Force-directed layout maps interest similarity; graph design and interactivity explained in Lecture 10; story context adds meaning.
Usage Patterns	Nivo / D3	4.2, 6.1, 7.2, 12.1	Patterns over time need clarity; heatmaps/bar charts combined with perceptual guidelines and storytelling flow help readability.
Relationship Goals	Nivo (Pie)	6.1, 7.1, 12.1, 12.2	Pie chart shows goals by demographic; color theory enhances legibility; narrative helps users extract comparisons and insights.

Development Plan: MVP and Scalable Enhancements

To ensure both feasibility and impact, the LoveLogic project is structured around a robust MVP and a scalable roadmap for enhancements.

Current MVP

Several graphs are planned to be implemented as presented through the previous sketches. Those include age distribution, interest cloud, usage patterns, relationship goals and profile explorer. Additionally, we have thought of adding advanced filtering system which could offer multi-dimensional filtering capabilities by offering dynamic updates based on selection. On top of that, one of the main features we want to add would be the swipe game.This gamified quiz-style interface presents behavioral claims (e.g., "Women swipe less than men"). Users swipe right for true, left for false. The logic is tied directly to real data points, and feedback is given interactively.

Potential Enhancements

Enhanced Game Features : Additional swipe game components may include score tracking, progress indicators, achievement systems, and more nuanced behavioral claims.
Advanced Filtering Enhancements : Future filtering tools could allow saving filter combinations, maintaining history, exporting filtered data, and running deeper statistical analyses across filtered segments.
Visualization Improvements : Future enhancements could include animated transitions, richer tooltips, theme customization (e.g., color palettes), and downloadable visualizations.
User Experience Enhancements : A guided feature tour, in-app tutorial, user preference storage, and social media sharing options would enhance engagement and personalization.