MARV

Twitter Sentiment Analysis

Purpose

- Allow users to determine the public opinion of the item or company they are interested in researching.
- Show public opinion by geographic location.

Goals

- Retrieve Tweets associated with the users key word.
- Use Sentiment Analysis to determine the emotion of the tweet.
- Display map of public opinion by geographic location.

TEAM INFO

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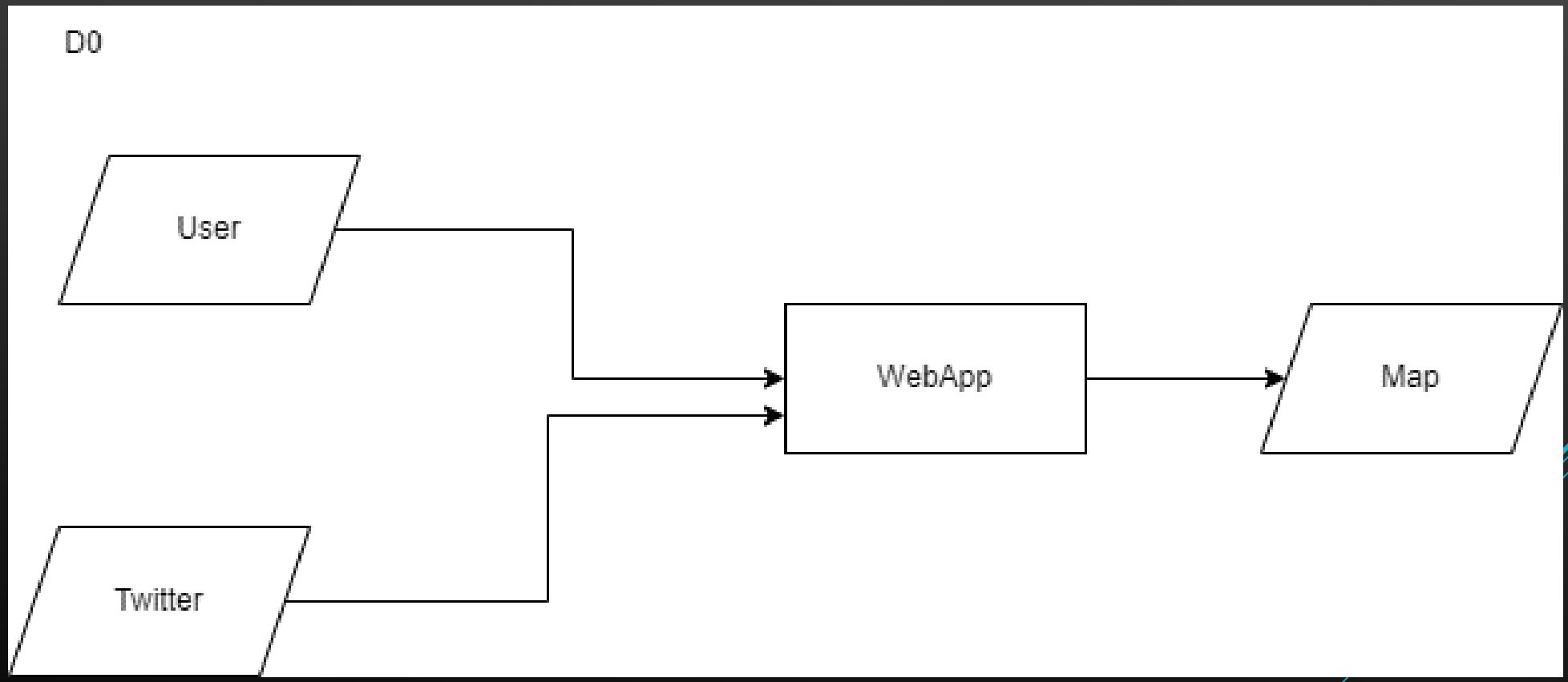
ABSTRACT

The goal of this project is to create a web application that uses twitter and sentiment analysis to determine the public opinion about businesses, products, and people based on location. Once the public opinion has been determined, we will use data visualization to display the sentiment analysis based on geographic location. In addition to being able to see the public opinion, the users will be able to see what other words are associated with their object of interest. This product is intended to be used by businesses to analyze their products, and the public to decide where to work or what to buy.

USER STORIES

- As an applicant, I want to compare different companies so that I can decide on the best one to work for.
- As a public relations specialist, I want to know if and when the public opinion of my company has changed in a location so that I can determine the source that caused the change.
- As the head of marketing, I want to know how the public feels about my company, so that I have the necessary information to produce marketing campaigns.
- As a consumer, I want to know how well a product is received so that I have enough knowledge to make a well-informed purchase.

DESIGN DIAGRAM: D0



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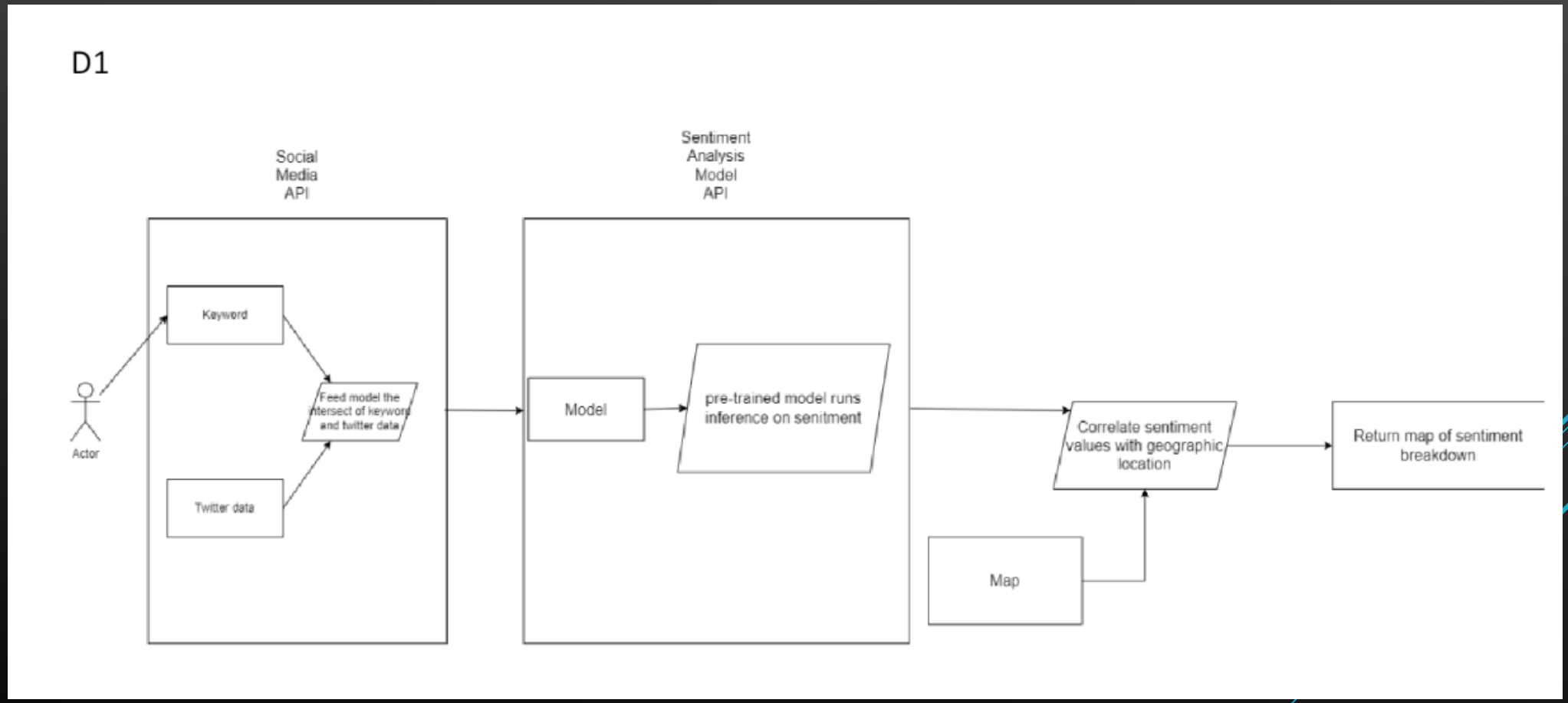

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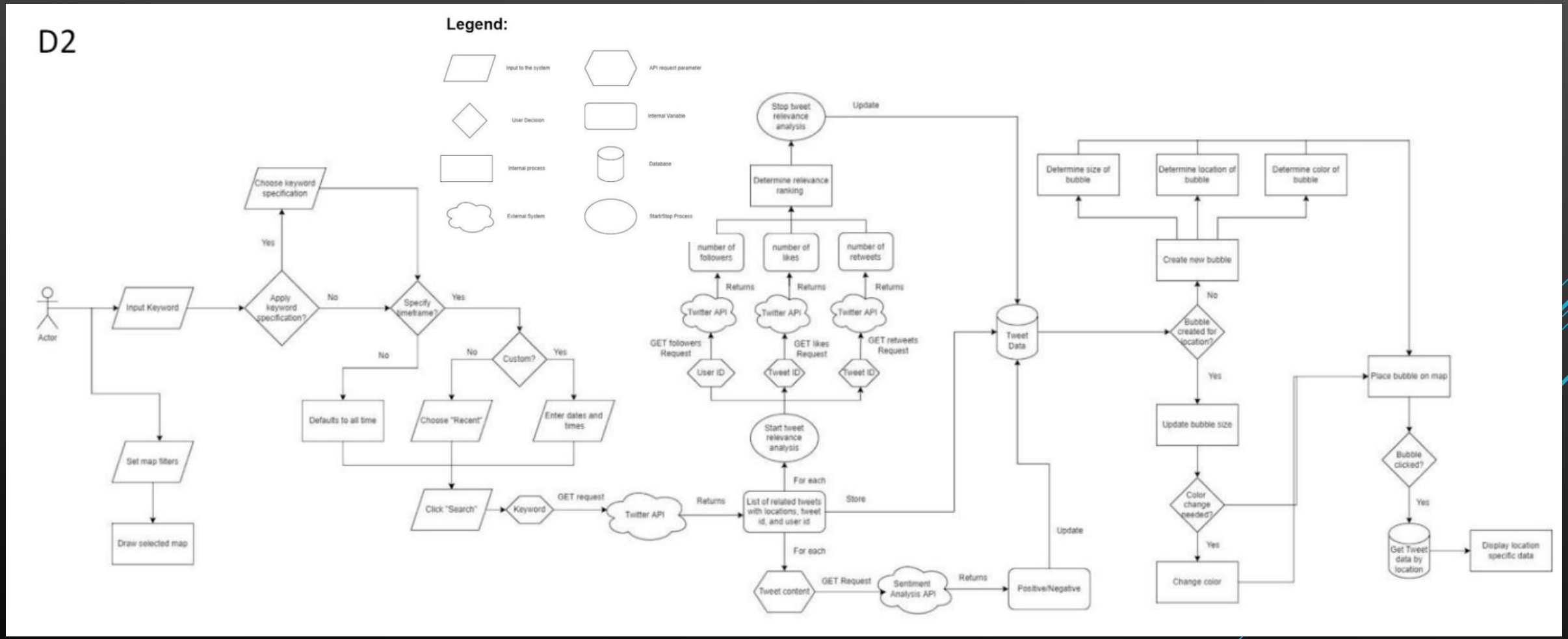

PROJECT CONSTRAINTS

- Legal
  - Twitter Guidelines for API usage
- Diversity and Cultural
  - Factor cultural differences into sentiment analysis
- Social
  - Ease of use
- Ethical
  - Privacy and Representation

PROJECT PROGRESS

- Current Phase: Research and Development
  - Coding base for front-end is currently being developed
  - Research for back-end design and implementation is underway

EXPECTED ACCOMPLISHMENTS

- Design front-end code structure (end-date: 11/6/22)
- Design back-end code structure (end date: 11/6/22)
- Develop code that pulls from Sentiment Analysis API to determine emotion associated (end date: 11/14/22)
- Combine both API's to ensure full data flow across application (end date: 12/1/22)

DIVISION OF WORK

- Anna Chambers: Sentiment Analysis
- Mario Eid: Front-End Development and Testing
- Reed Klein: Testing and Front-End Development
- Veronica Ufferman: Location API and Data Visualization

EXPO DEMO PLAN

- Exposition of APIs used and the intended functionality of the website.
- Use a keyword that returns a large amount of Twitter data
- Generate sentiment mappings from the Sentiment Analysis AI
- Demonstrate the information and filtering abilities of the website