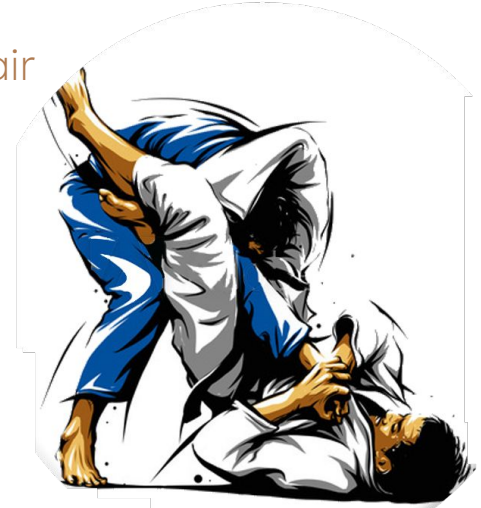


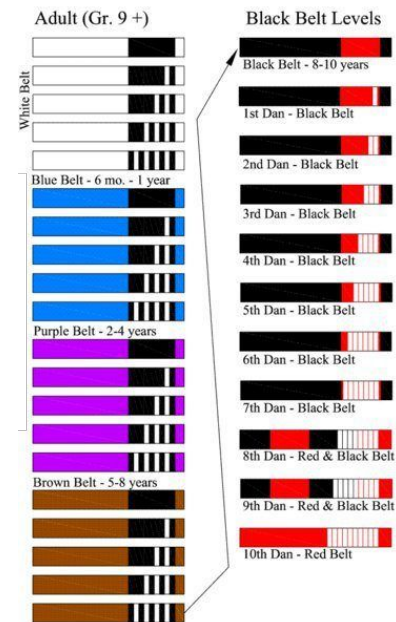
Roll Companion

Alicia Bilbao, Robert Bolton, William Blair



Context

- Brazilian Jiu Jitsu
 - Brazilian Jiu jitsu is a difficult sport
 - There are many techniques and relationships between them
 - Can be hard for beginners to conceptualize
 - More experienced practitioners are likely to plateau



Jiu-jitsu is Systematic

Example: High Level Mount System

1. Get an **underhook**



2. **Elbow separation** over the shoulder line



3. Establish **control grip**

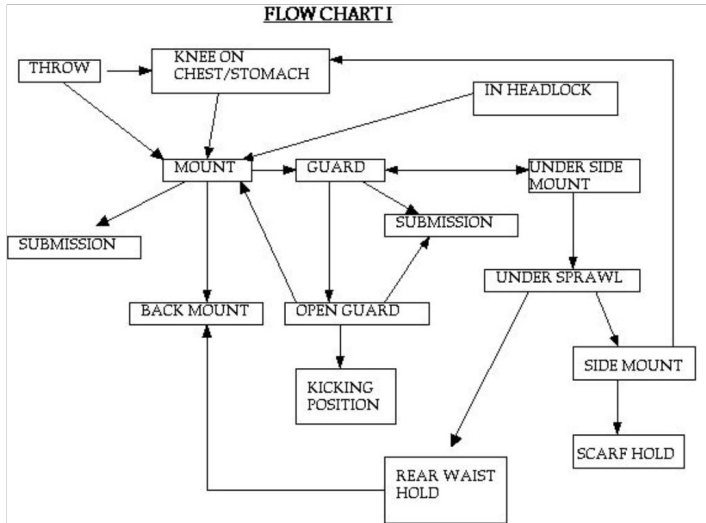


4. **Submission**

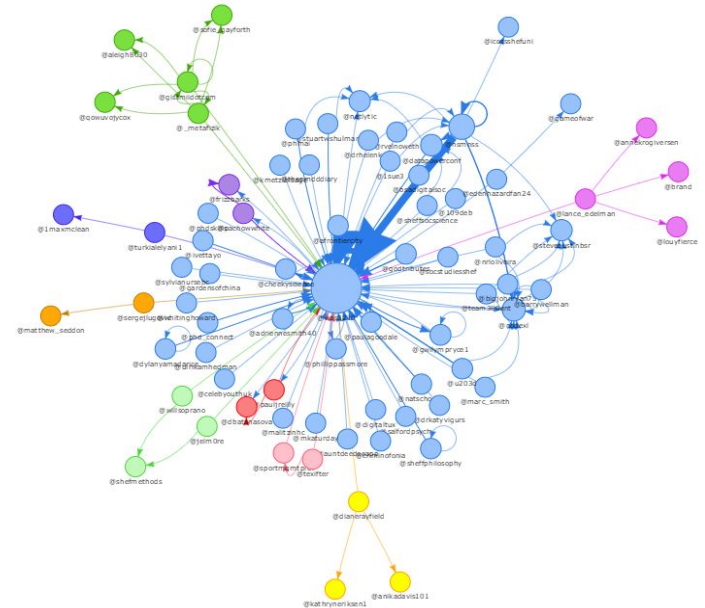


Graph

- Graph Neural Network
 - Track and visualize progress



Rickson Gracie's System Flow Chart



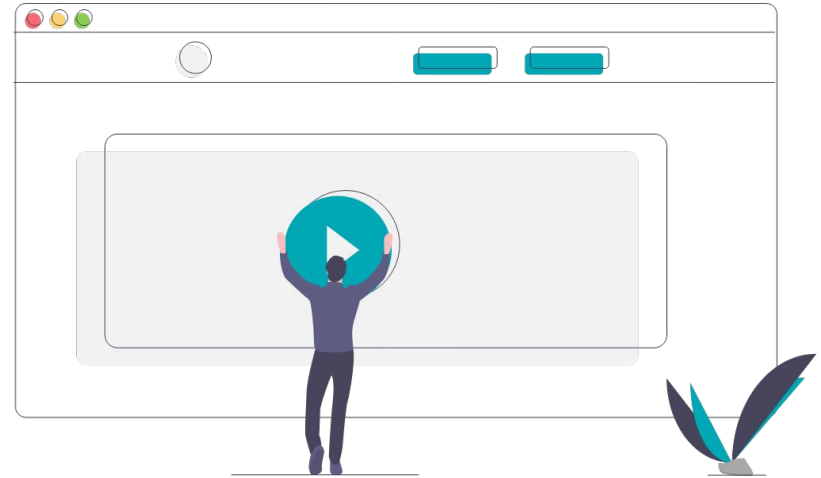
Network Graph of Twitter data

Friends & Instructionals

- Connect with friends



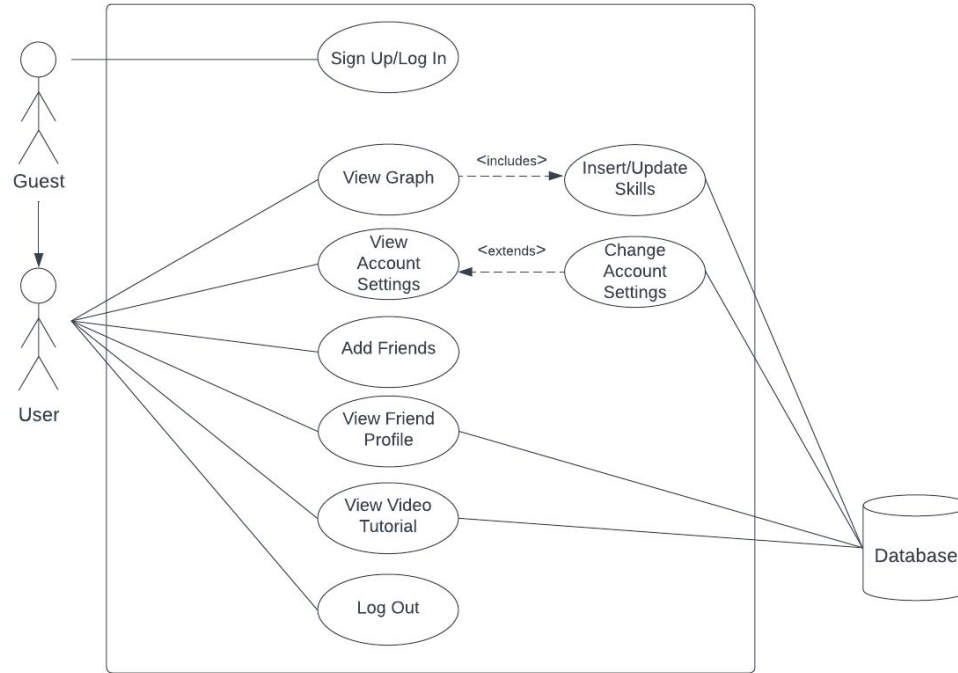
- Watch video instructionals



Functional Requirements

- Account Sign Up
- Account Log In
- View Graph
- Insert/Update Skills
- View/Modify Account Settings
- Add Friends
- Respond to Friend Request
- View Friend List
- View Friend Profile
- View Video Tutorials
- Log Out

Use Cases and Use Diagram



Non-Functional Requirements

Performance

- Response time $\leq 1s$

Capacity and Scalability

- 1TB Cloud Storage
- Handle users scaling with releases: 1000
 - 1000
 - 10,000
 - 100,000

Availability:



- San Diego / New York



- Rio de Janeiro

Evolutionary Requirements

Functional Requirements

- Save Videos

Non Functional Requirements

- Uptime

System Constraints

- Dart, Flutter, and Python
- Firebase
- Mobile Application
- Internet and Bluetooth
- Battery life
- Memory
- Agile Development



Dart



Flutter

THANK YOU

