

CITI BRIDGE'23

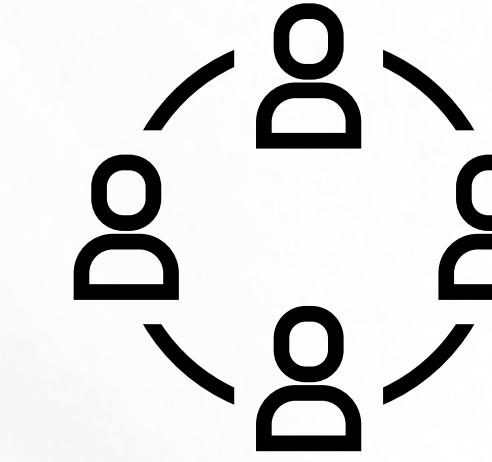
MARKET-CAP BASED TRADE RECOMMENDATION SYSTEM



Meet our Team

MENTORS

Sandeep Allam
Ranjit Mahadik
Yogendrasingh Rajput



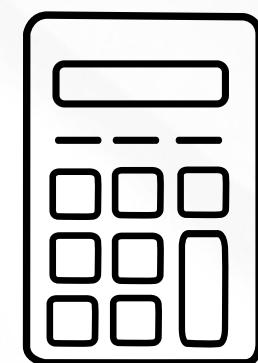
MEMBERS

Isha Shukla
Shreya Amritkar
Deepali Patel
Chinmayee Yeladi
Vaishnavi Mundada

Agenda

- Introduction
- Understanding Market Capitalization
- Flow of the Recommendation System
- Outcomes, Challenges, Future Scope
- Demo
- Key Takeaways





$$= \begin{matrix} \text{Bar chart with dollar sign} \\ \times \end{matrix}$$

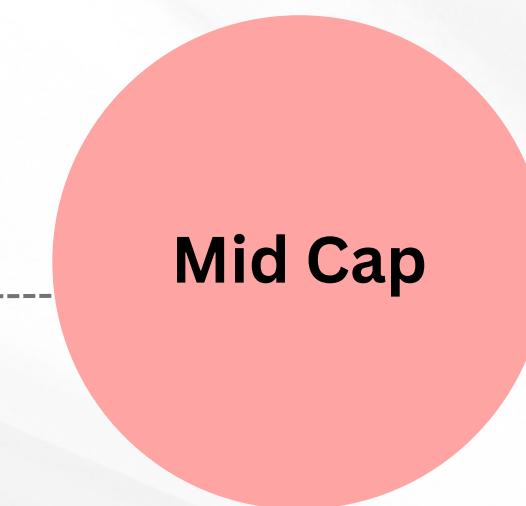
Market Capitalization
formula

Current market
price per share

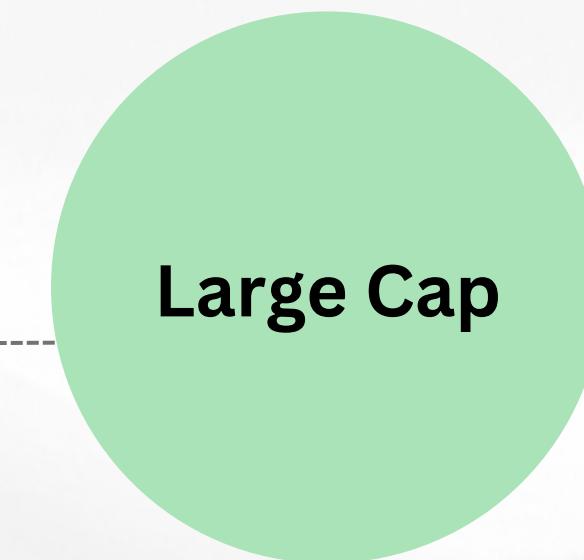
Total number of
outstanding shares



< \$2 billion



\$2 billion to \$10 billion



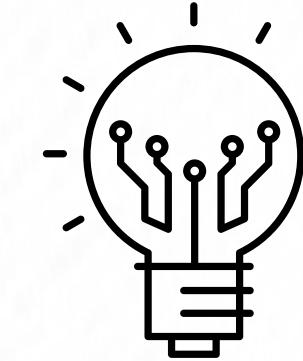
> \$10 billion



Problem Statement

- Designing a trade recommendation system
- Choice of market cap
- Top 5 best and worst performing stocks
- Favourites: Quantity and market price
- Persistent storage

Technology



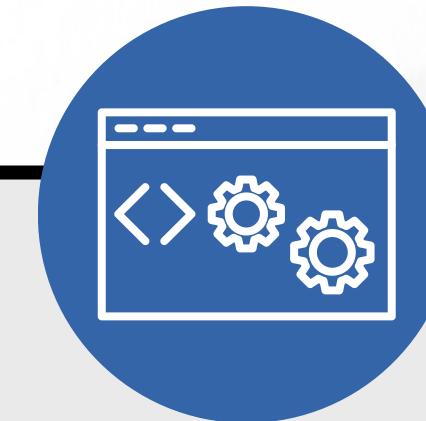
FRONTEND

VUE JS,
ANYCHART
HTML, CSS



DATABASE

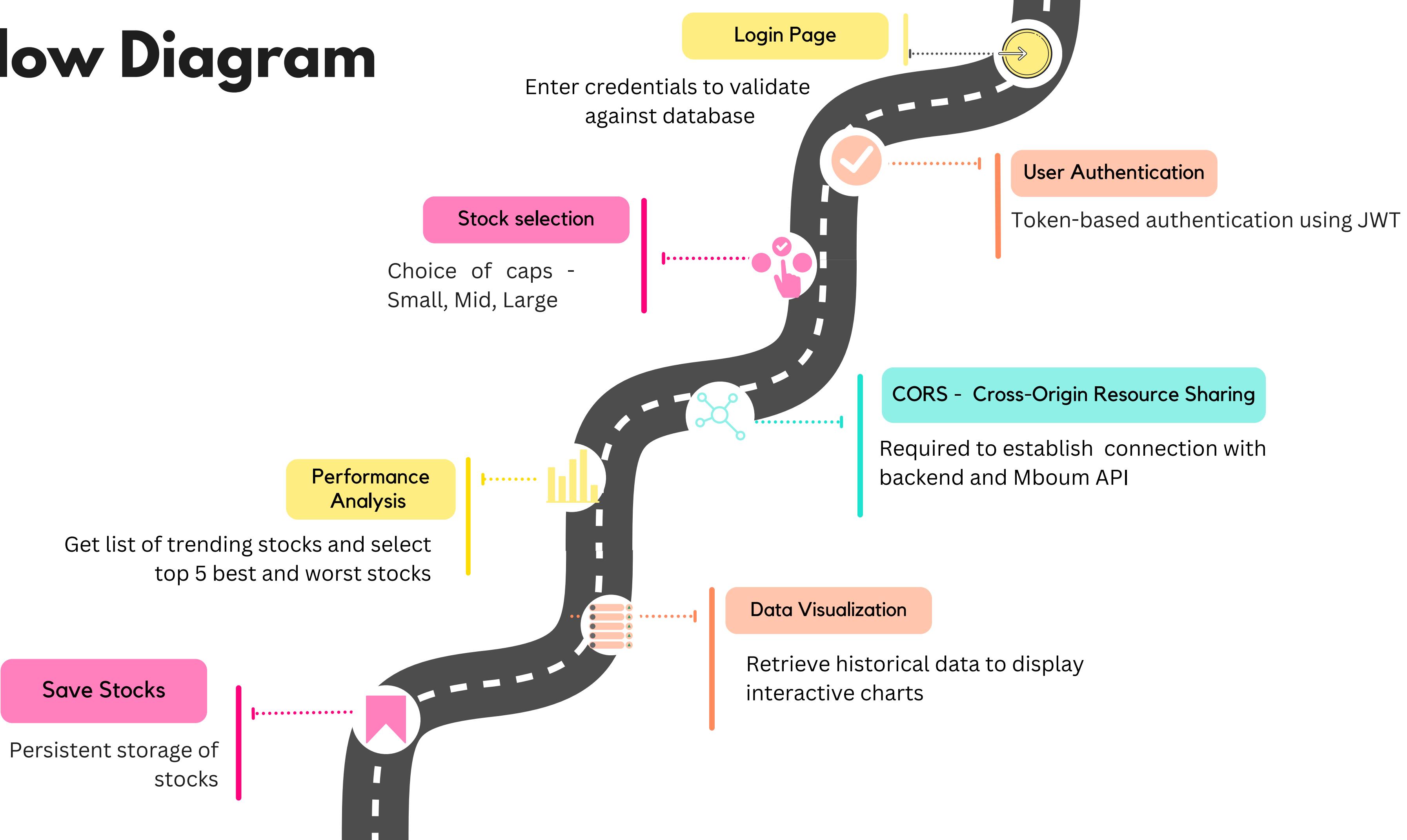
SQLITE



BACKEND

PYTHON,
FLASK
API: MBOUM

Flow Diagram



Data Model

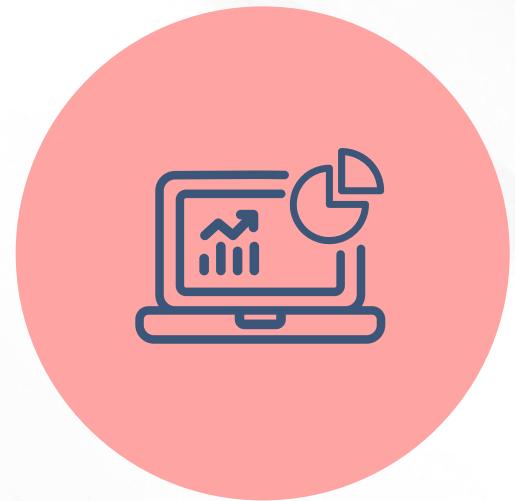


User

id (PK)	username	password
1	user1	pass1
2	user2	pass2
3	user3	pass3

Favourites

id (PK)	user_id (FK)	symbol	timestamp	current_market_price	quantity
1	1	AAPL	2023-07-29 10:30	145.25	5
2	1	MSFT	2023-07-29 11:15	278.50	3
3	2	GOOGL	2023-07-29 09:45	2902.75	2
4	3	TSLA	2023-07-29 12:00	765.20	1



Project Outcomes

- Enhanced security
- Seamless UX
- Smart investment choices
- Data visualization
- Stock management



Challenges

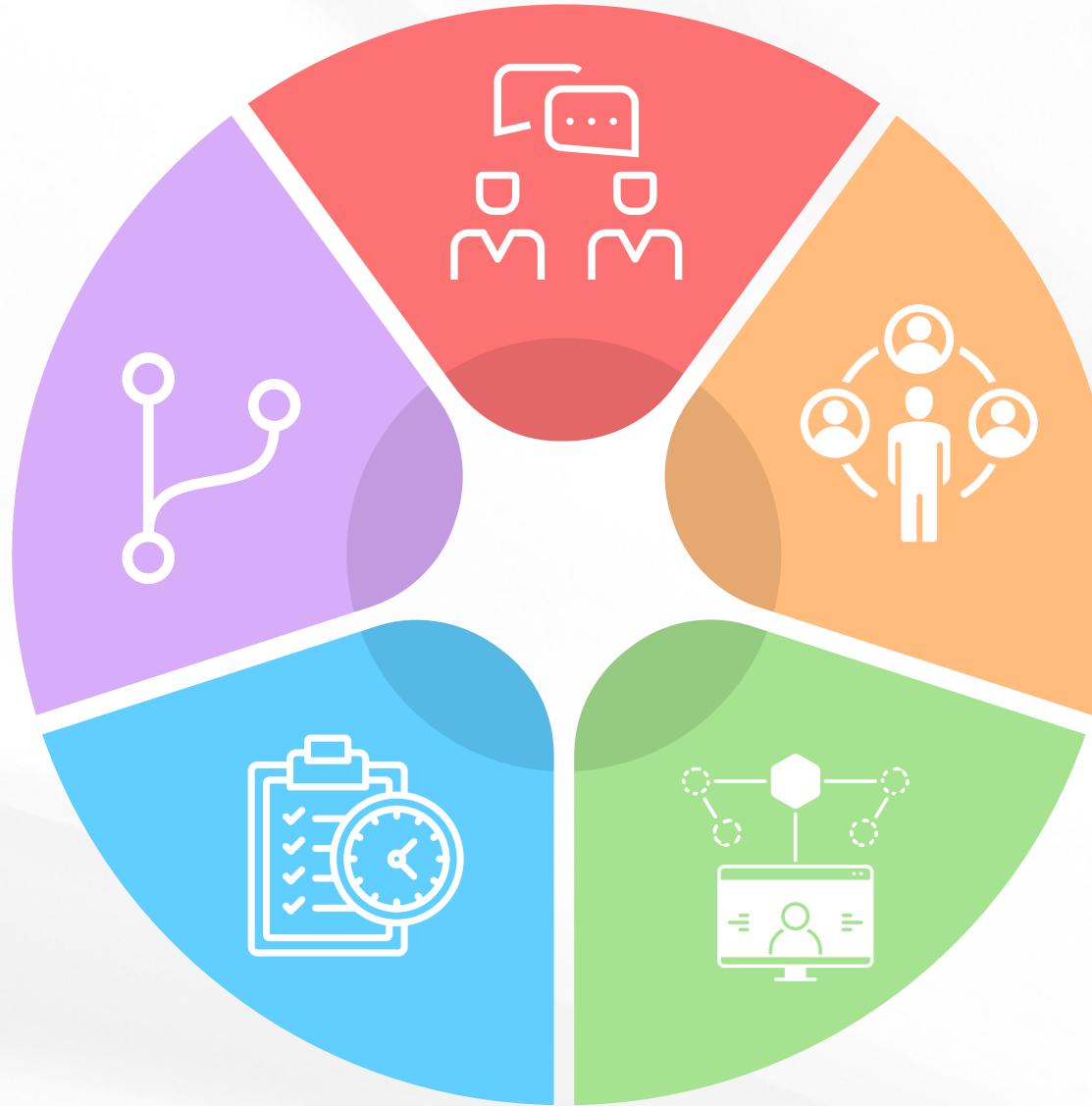
- Finding the right API
- Strict access control policy for browser
- Styling Issues
- Scalability (SPAs)



Future Scope

- Enhance scalability by using Celery (message broker) + Redis (cache)
- Deployment with CI/CD
- Further enhance UX
- ML recommendations
- Multi-lingual support

Key Learnings



- **Feedback & iteration**
- **Leadership & delegation**
- **User-Centric Design**
- **Time Management**
- **Collaboration Tools (Git, Trello)**



Appendix

<https://flask.palletsprojects.com/en/2.3.x/>

<https://pythonhosted.org/Flask-Security/>

<https://flask-restful.readthedocs.io/en/latest/>

<https://flask-sqlalchemy.palletsprojects.com/en/3.0.x/>

<https://flask-cors.readthedocs.io/en/latest/>

<https://vuejs.org/>

<https://vuex.vuejs.org/>

<https://router.vuejs.org/>

<https://vitejs.dev/>

<https://axios-http.com/docs/>

<https://www.anychart.com/>

<https://rapidapi.com/sparior/api/mboum-finance>

Any Questions?



THANK YOU!