# IN ESTIQ

BY TEAM 02--> TECHNO STACK



## AGENDA

	Team Member Roles and Responsibilities						
	Improvements from Professor Feedback						
	Project Description						
Team Working Agreement							
	Personas						
	MVP						
	Technologies						
	Algorithms						
	Diagrams						
	Product Backlog						
	Sprint 2 Backlog						
	Metrics						
	Retrospective						
	Sprint 3 Planning						
	Project Demo - Sprint 2						
	Github Link						
_	Live Application Demo						

#### TEAM MEMBERS



Ruchitha Reddy Kuthuru -Product Manager and Full Stack developer

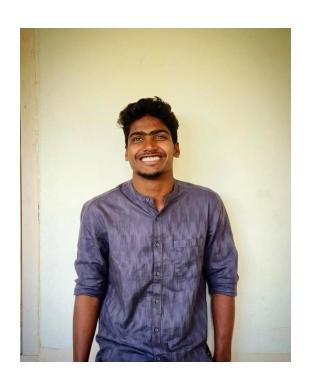


Mahidhar Reddy Kandula -Machine learning Engineer

#### TEAM MEMBERS



Afrida Mehanaz Shaik-Machine Learning Engineer



Sharan Jagíní - Backend Engineer and Tester

#### TEAM MEMBERS



Nadeem Hussain Shaik -Frontend Developer



Shrínídhí Daheechí - Frontend Developer

#### PROBLEM STATEMENT

Investors often find it challenging to make informed decisions due to overwhelming market information, constant fluctuations, and a lack of personalized guidance. Many existing tools provide data but do not offer meaningful insights tailored to individual needs. This app aims to simplify investment decisions by analyzing market trends, tracking relevant news, and offering timely recommendations based on personal financial goals and life events. Combining real-time updates with user-specific insights helps investors stay informed and make smarter financial choices with confidence.

## PROJECT DESCRIPTION

Project Name:	InvestiQ			
Team:	Techno Stack			
Project Description:	For investors			
	who struggle with analyzing market trends and making informed financial decisions,			
	the InvestIQ Al application			
	is a smart investment assistant			
	that analyzes stock market trends, processes real-time financial news, and provides personalized investment insights and risk alerts.			
	Unlike traditional investment platforms that only offer raw data and generic analytics,			
	our application leverages Al-driven time series analysis and natural language processing to deliver real-time, context-aware financial recommendations tailored to users' personal financial goals and life events.			
Benefit Outcomes:	<ul> <li>Better investment decisions with Al-driven insights and alerts</li> <li>Personalized financial recommendations based on user behavior and market trends</li> <li>Real-time market sentiment analysis for timely and informed trading</li> <li>Reduced research time by consolidating key financial insights into a single platform</li> </ul>			
Github Link:	https://github.com/htmw/2025S-Techno-Stack/wiki			

## TEAM WORKING AGREEMENT

#### **Team Working Agreement**

Team Name: Techno Stack

#### 1. Communication & Meetings

- Slack: Our main channel for daily communication, quick questions, and status updates.
- Virtual/In-Person Meetings: We will conduct weekly meetings via Zoom or Google
  Meet. If in-person classes are held, we will transition to face-to-face meetings as
  needed. Team members are encouraged to raise doubts and support one another
  during these meetings.

#### 2. Project Management

- Jira: We will use Jira to track tasks, set deadlines, and monitor progress. It's essential
  that all links in our documentation and code repositories are verified and kept up-todate.
- Timely Submissions: Every team member must complete their assigned tasks on time to ensure the project stays on track schedule.

#### 3. Documentation

 All documentation must include working links to code repositories, APIs, and other relevant resources. This ensures every team member can access the latest project updates and resources.

#### 4. Roles & Responsibilities

- Ruchitha Reddy Kuthuru (PM & Full Stack Developer): Oversees the project, coordinates meetings, and contributes to frontend and backend development.
- Mahidhar Reddy Kandula (ML Engineer): Develops and integrates AI models for sentiment analysis and trend forecasting.
- Afrida Mehanaz Shaik (ML Engineer): Collaborates on developing and optimizing AI models and data processing workflows.
- Sharan Jagini (Backend Developer & Tester): Manages backend development, handles API integrations, and conducts thorough testing to ensure quality and functionality.
- Nadeem Hussain Shaik (Frontend Developer): Designs and develops a responsive user interface focusing on usability.
- Shrinidhi Daheechi (Frontend Developer): Supports frontend development and collaborates on UI/UX design improvements.

#### 5. Collaboration & Support

- Team members are expected to help each other by promptly addressing doubts and challenges as they arise.
- Regular updates on Jira and other project management tools are required to inform everyone of progress.

 Ensuring that all documentation, code, and integrations (including working links) are thoroughly tested and maintained is a shared responsibility.

#### Agreed by:

- Ruchitha Reddy Kuthuru
- · Mahidhar Reddy Kandula
- · Nadeem Hussain Shaik
- Sharan Jagini
- Afrida Mehanaz Shaik
- Shrinidhi Daheechi

#### PERSONA

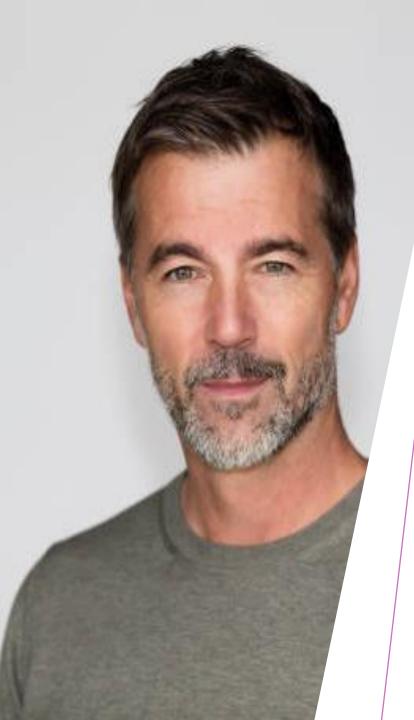
#### AARAV SHARMA

- Age: 28
- · Occupation: Software Engineer
- · <u>Investment Experience</u>: Intermediate
- <u>Goals</u>: Simplify his investment decision-making process by utilizing clear, actionable insights from real-time news.
- <u>Pain Points</u>: Feels overwhelmed by the vast amount of market data and frustrated by platforms that fail to provide timely news analysis.
- <u>Description</u>: Aarav values technology and data-driven insights; he seeks a tool that aggregates real-time news, enabling him to quickly grasp market shifts without the distraction of raw stock data.

#### · challenges:

- Struggles with filtering relevant financial information from the overwhelming amount of market data.
- Finds it time-consuming to track news manually and correlate it with market trends.





#### PERSONA

#### THOMAS SHELBY

- · <u>Age:</u> 40
- · Occupation: Corporate Manager
- · Investment Experience: Beginner to Intermediate
- <u>Goals</u>: Achieve steady portfolio growth by staying informed about key market developments through timely news updates.
- <u>Paín Points</u>: Finds traditional investment platforms cluttered with irrelevant data and lacking a focused approach to current financial news.
- <u>Description</u>: With a busy schedule, Thomas needs a user-friendly platform that provides curated real-time news and actionable insights, enabling him to make confident, long-term financial decisions without continuously monitoring fluctuating stock figures.

#### · <u>Challenges</u>:

- Has límíted tíme to stay updated on financial news and market changes.
- Prefers risk-averse investments but struggles with identifying safe and promising opportunities.

#### PERSONA

#### SANJANA REDDY

- <u>Age:</u> 35
- · Occupation: Financial Analyst
- · Investment Experience: Advanced
- <u>Goals:</u> Optimize her investment strategy with comprehensive market analysis based on the latest financial news.
- <u>Paín Points</u>: Frustrated with generic investment tools that do not integrate timely news, leaving her without the nuanced insights she needs.
- <u>Description</u>: Sanjana is analytical and detail-oriented, searching for a sophisticated platform emphasizing real-time news analysis to provide deep insights and tailored recommendations rather than just raw stock data.

#### · challenges:

- Struggles with quickly assessing the sentiment of large volumes of financial news.
- It requires advanced analytics but finds that many tools lack deep AI-driven insights.



## MVP

- <u>User registration and profile setup</u> (to capture financial goals, risk tolerance, and preferences).
- <u>Historical market trend analysis</u> (using delayed or historical stock data from free APIs like Yahoo Finance or Alpha Vantage, which often provide historical data for free).
- <u>Personalized investment recommendations</u> (based on historical trends, user goals, and risk tolerance, using a simple rule-based algorithm instead of real-time data).
- · A <u>dashboard</u> to view recommendations, historical trends, and market news.

#### TECHNOLOGIES - BACKEND

• Flask: A lightweight Python framework ideal for building RESTful APIS, easily integrating with machine learning models, and simplifying backend logic.



• <u>Node.js</u>: Offers non-blocking, eventdriven architecture, making it great for handling real-time operations and concurrent tasks.



#### TÉCHNOLOGIES - FRONTEND

• <u>Next.js</u>: Offers server-side rendering and static site generation, resulting in fast, SEO-friendly pages and a strong user experience interface.

• TypeScript: Improves code quality and maintainability by providing static type checking, which reduces runtime errors.

**NEXT**.Js



#### TECHNOLOGIES - DATABASE

• PostgreSQL is a powerful, open-source relational database known for its reliability, scalability, and support for complex queries, ensuring secure and efficient data storage.



#### TECHNOLOGIES - APIS

## Financial News API & Polygon API

• These APIs supply real-time financial news and market data, enabling the application to deliver timely and actionable insights without relying on raw stock data.



polygon.io

#### TECHNOLOGIES - MACHINE LEARNING

PyTorch is selected for its dynamic computation graph and user-friendly interface, making it ideal for developing and training deep learning models used in sentiment analysis and trending forecasting.



## TECHNOLOGIES - HOSTING & DEPLOYMENT

- <u>Vercel</u>: Perfect for quickly deploying frontend applications with high performance and scalability.
- <u>DigitalOcean</u>: Offers dependable and scalable hosting for backend services and the entire application deployment.





## TECHNOLOGIES - DEVELOPMENT TOOLS

- <u>Visual Studio Code</u>: A versatile code editor featuring extensive extensions and integrated debugging that enhances the developer experience productivity.
- Postman: Essential for testing APIs, confirming our endpoints function as expected during development.
- <u>Git</u>: To enable version control, enhance collaborative development, and improve code management.
- <u>Docker</u>: used for containerization, ensuring consistency across development, testing, and production environments.
- <u>Slack</u>: Facilitates effective team communication and project management.

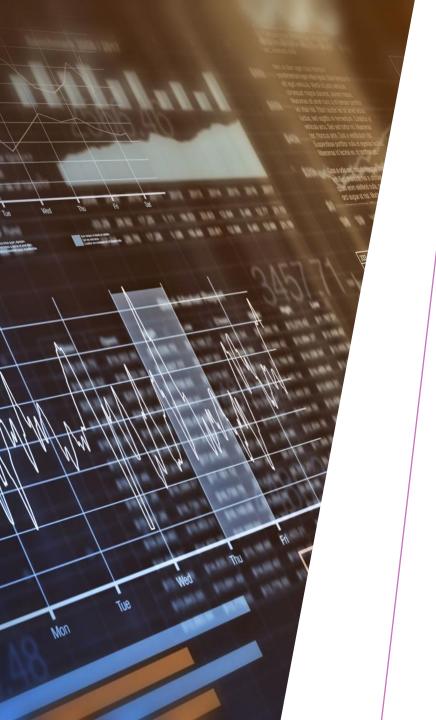












#### ALGORITHMS - NLP

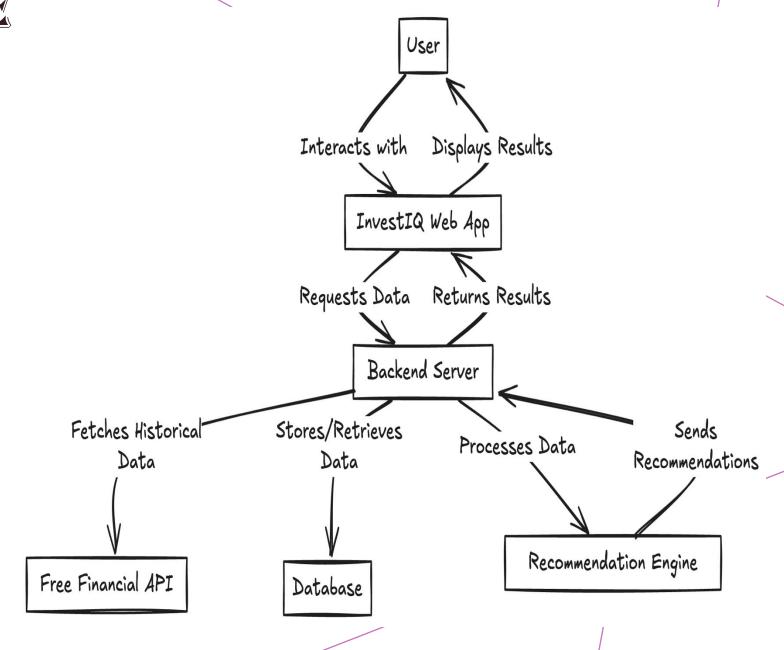
Our NLP module harnesses cutting-edge technology. The phi model for natural language processing is specifically designed to analyze real-time financial news. This module extracts sentiment and identifies key topics from the latest updates, enabling the application to interpret market sentiment accurately. By processing large volumes of textual data, the phi model provides actionable insights that inform users about market trends and emerging financial narratives, transforming raw news into clear, meaningful investment opportunities quidance.



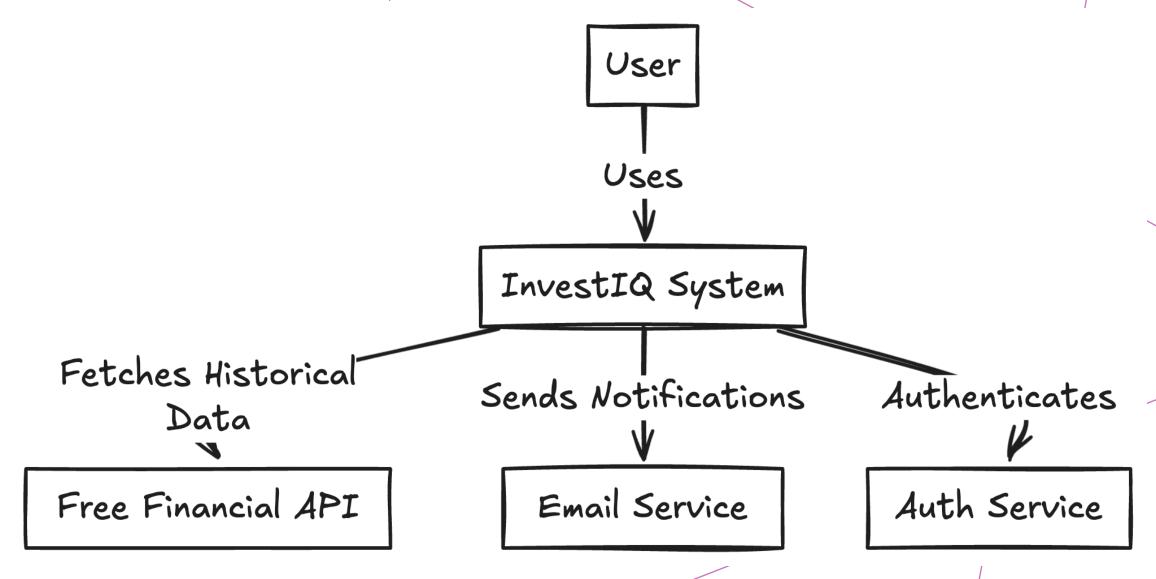
#### ALGORITHMS - TIME SERIES

· Our Time Series Analysis module examines historical stock market data using advanced deep learning techniques like LSTM and Temporal Fusion Transformers to capture underlying trends and seasonal patterns. This analysis provides essential context that complements the real-time insights derived from our NLP module, ensuring users have a strong understanding of market dynamics. Together, these two modules generate a strong synergy that enables investors to make informed decisions based on current news sentiment and historical market performance.

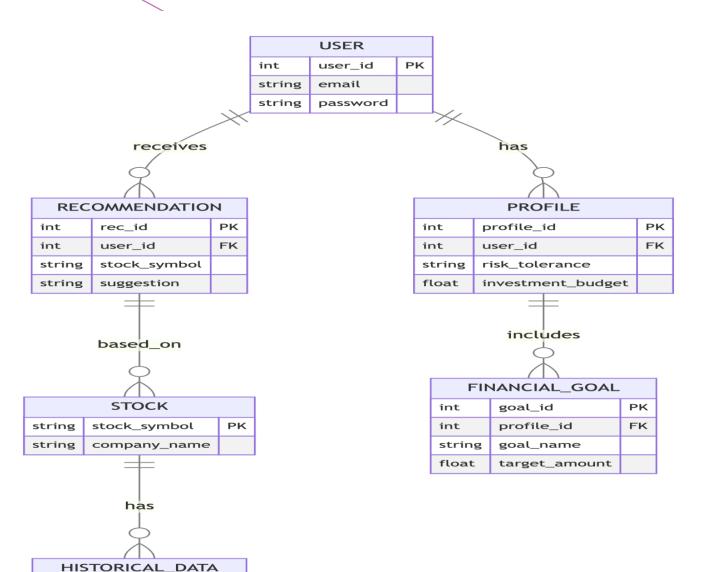
## ARCHITECTURE DIAGRAM



#### CONTEXT DIAGRAM



# ER DIAGRAM (ENTITYRELATIONSHIP DIAGRAM)



PK

FK

data id

date trend

stock\_symbol

past\_price

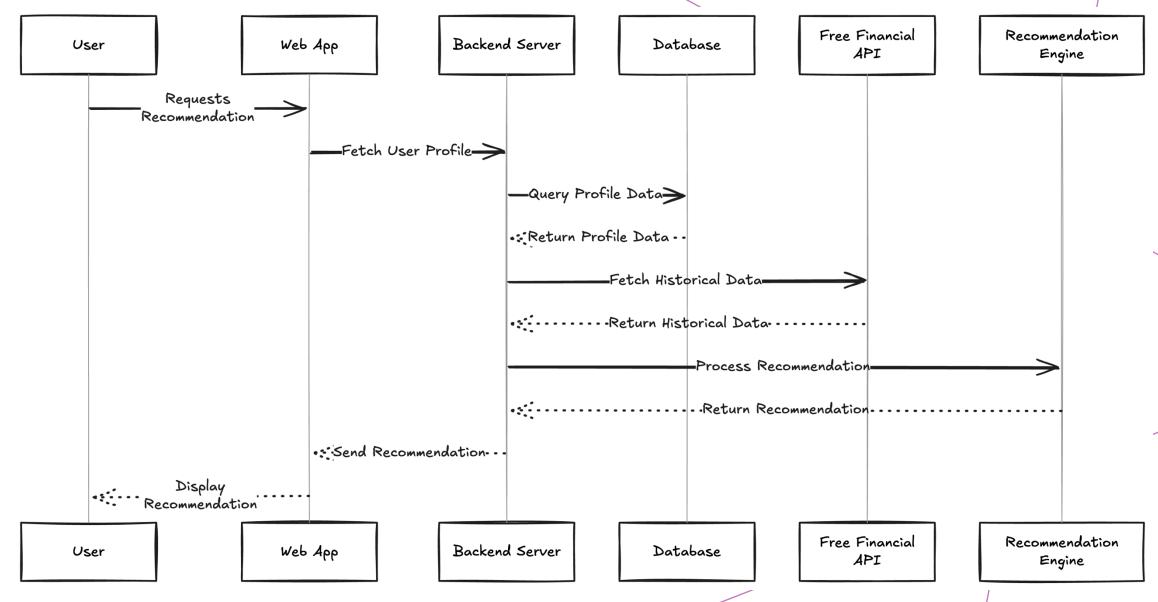
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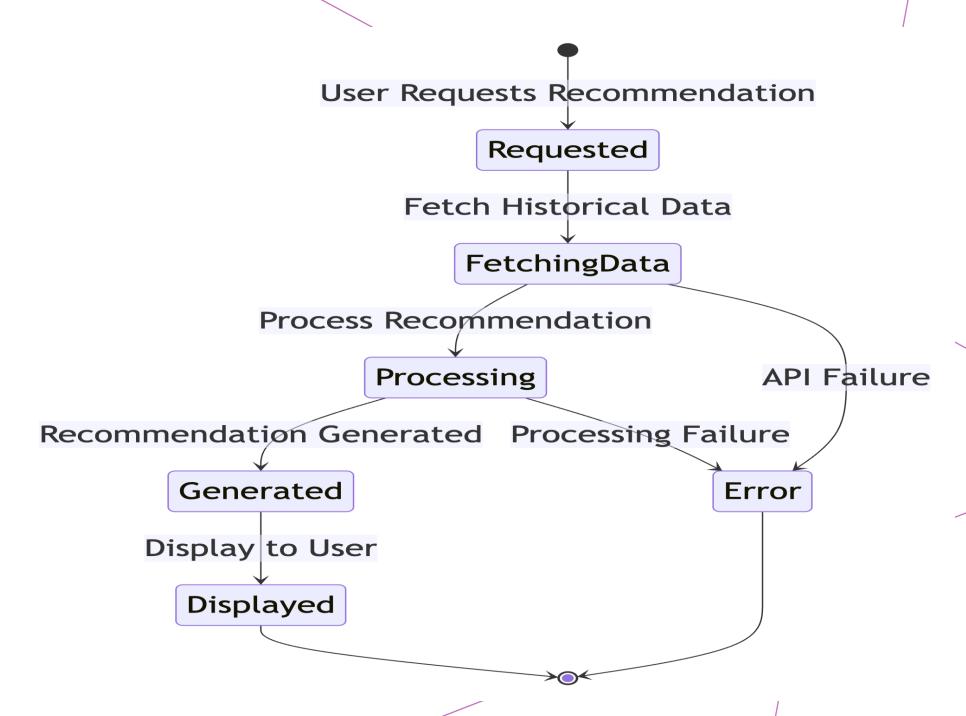
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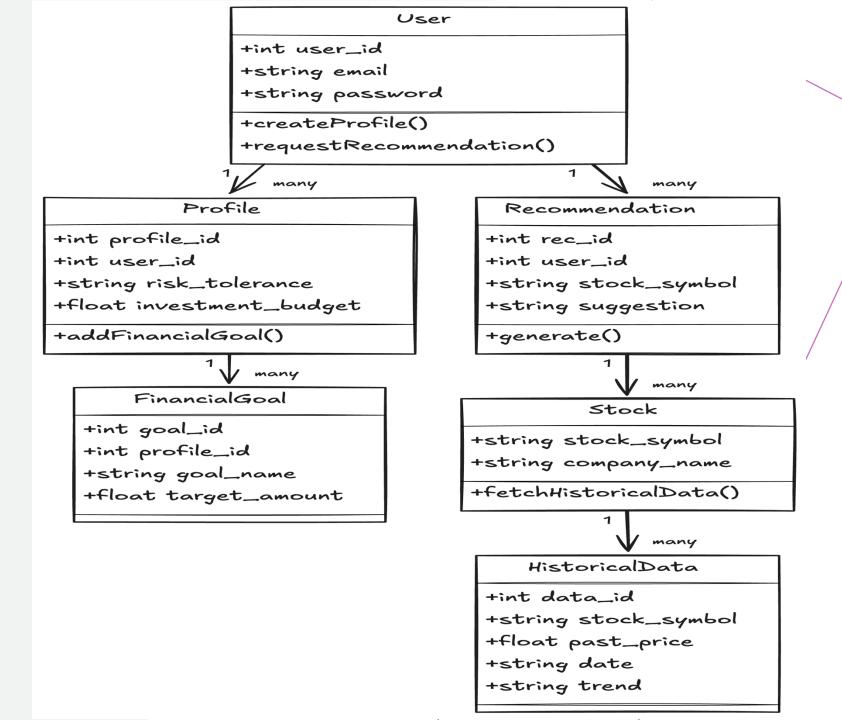
## SEQUENCE DIAGRAM



## STATE DIAGRAM



# CLASS DIAGRAM



#### SPRINT I RECAP

· The frontend part is done during sprint 1 recap.

<u>Story</u>	<u>Feature</u>	<u>user Story</u>	Acceptance Criteria	<u>Story</u> <u>Points</u>
US1	Aarav Sharma wants to see a basic Basic Dashboard UI dashboard layout, So that he can understand the structure of the app.		<ol> <li>Dashboard has sections for recommendations, trends, and news (placeholders).</li> <li>Layout is clean with a header, sidebar, and main content area.</li> <li>Ul is responsive for desktop and mobile.</li> </ol>	5
us2	Profile Setup UI	Aarav Sharma wants to input his risk tolerance and budget in a form, So that he can simulate setting up his profile.	<ol> <li>Form includes dropdown for risk tolerance (Low, Medium, High) and input for budget.</li> <li>Form has a "Save" button that shows a confirmation message (no backend saving yet).</li> <li>Error message shown if budget is invalid (e.g., negative).</li> </ol>	3
иSЗ	Placeholder UI	Thomas Shelby wants to see a placeholder for recommendations, So that he can visualize where his investment suggestions will appear.	<ol> <li>Dashboard has a section titled "Recommendations".</li> <li>Section shows 3 mock recommendations (e.g.,         "Stock: AAPL, Suggestion: Buy").</li> <li>Each recommendation has a button labeled "View Details" (non-functional for now).</li> </ol>	3
TS1	Setun	As a developer needs to set up a front- end framework (e.g., React), So that the team can build the UI efficiently.	<ol> <li>Project is initialized with React (or similar framework).</li> <li>Basic routing is set up for dashboard and profile pages.</li> <li>CSS framework (e.g., Tailwind or Bootstrap) is</li> </ol>	5

Story ID	<u>Feature</u>	<u>user Story</u>	Acceptance Criteria	Story Points	
US4	User Registration	Aarav Sharma wants to register with his email and password, So that he can access the Investi@platform.	<ol> <li>Aarav can enter email and password on a registration form.</li> <li>System validates email format and ensures password is at least 8 characters.</li> <li>Upon successful registration, Aarav is redirected to login page. 4. Error messages shown if email is in use or inputs are invalid.</li> </ol>	ß	
U.S.5	User Logín	Aarav Sharma wants to log in with his email and password, So that he can access his dashboard.	<ol> <li>Aarav can enter email and password on a login form.</li> <li>System validates credentials and logs Aarav in if correct.</li> <li>Aarav is redirected to the dashboard upon successful login.</li> <li>Error message shown if credentials are incorrect.</li> </ol>	Q	\
US6	Save Profile Data	Aarav Sharma wants to save his profile data, So that the system can use it for recommendations.	<ol> <li>Profile form (built in Sprint 1) now saves data to the backend.</li> <li>Aarav can edit and update his profile.</li> <li>Confirmation message shown after saving.</li> </ol>	Ŋ	
TS2	Backend API Integration	As a developer needs to integrate a free API (e.g., Yahoo Finance) to fetch historical stock data, So that the team can use it for recommendations.	<ol> <li>Backend fetches historical stock data for 5 sample stocks (e.g., AAPL, GOOGL).</li> <li>Data includes 30 days of historical prices and trends.</li> <li>Data is cached in the database.</li> </ol>	5	

Story ID	<u>Feature</u>	<u>user Story</u>	Acceptance Criteria	<u>Story</u> <u>Points</u>
TS3	Database Schema Setup	Sanjana Reddy needs to create a database schema for users, profiles, and historical data, So that the team can store and retrieve data.	<ol> <li>Schema includes tables for users, Profiles, and HistoricalData.</li> <li>Database uses a free solution (e.g., SQLite).</li> <li>Basic CRUD operations implemented for user and profile data.</li> </ol>	3
us7	Hístorícal Trends Dísplay	Thomas Shelby wants to see historical trends for recommended stocks, So that he can understand the basis for recommendations.	<ol> <li>Dashboard displays a line chart showing 30-day price trend for each stock.</li> <li>Chart uses historical data from the database.</li> <li>Chart includes labels for dates and prices.</li> </ol>	5
us8	Market News Display	Thomas Shelby wants to see recent market news, So that he can stay informed.	<ol> <li>Dashboard includes a section with market news headlines.</li> <li>News fetched from a free API (e.g., NewsAPI) and displayed as a list.</li> <li>Each news item includes title, source, and link to the article.</li> </ol>	5
us9	Personalízed Recommendatíons	Thomas Shelby wants to see personalized investment recommendations, So that he can make informed decisions.	<ol> <li>Recommendations replace the placeholder UI from Sprint 1.</li> <li>Recommendations are based on historical trends and user profile (e.g., risk tolerance).</li> <li>If no recommendations are available, a message like</li> </ol>	5

Story ID	<u>Feature</u>	<u>user Story</u>	Acceptance Criteria	Story Points
TS4	Recognize en dation 1 nais	As a developer needs to implement a	<ol> <li>Algorithm uses historical trends (e.g., 30-day moving average) and user risk tolerance.</li> <li>Example rule: Recommend stocks with upward trends for low-risk users.</li> <li>Logic is tested with sample profiles and data.</li> </ol>	5
TS5	News API Integration	As a developer needs to integrate a free news API (e.g., NewsAPI), So that the team can display market news.	<ol> <li>Backend fetches news articles related to finance.</li> <li>News data is cached for 24 hours.</li> <li>Error handling for API failures.</li> </ol>	3

## SPRINT 2 BACKLOG

1	Story ID	<u>Feature</u>	user Story	Acceptance Criteria	<u>Story</u> <u>Points</u>
	US4	User Registration	Aarav Sharma wants to register with his email and password, So that he can access the Investion platform.	<ol> <li>Aarav can enter email and password on a registration form.</li> <li>System validates email format and ensures password is at least 8 characters.</li> <li>Upon successful registration, Aarav is redirected to login page. 4. Error messages shown if email is in use or inputs are invalid.</li> </ol>	3
	US5	User Logín	Aarav Sharma wants to log in with his email and password, So that he can access his dashboard.	<ol> <li>Aarav can enter email and password on a login form.</li> <li>System validates credentials and logs Aarav in if correct.</li> <li>Aarav is redirected to the dashboard upon successful login.</li> <li>Error message shown if credentials are incorrect.</li> </ol>	2
	US6	Save Profile Data	Aarav Sharma wants to save his profile data, So that the system can use it for recommendations.	<ol> <li>Profile form (built in Sprint 1) now saves data to the backend.</li> <li>Aarav can edit and update his profile.</li> <li>Confirmation message shown after saving.</li> </ol>	3
	TS2	Backend API Integration	As a developer needs to integrate a free API (e.g., Yahoo Finance) to fetch historical stock data, So that the team can use it for recommendations.	<ol> <li>Backend fetches historical stock data for 5 sample stocks (e.g., AAPL, GOOGL).</li> <li>Data includes 30 days of historical prices and trends.</li> <li>Data is cached in the database.</li> <li>Error handling for API failures.</li> </ol>	5

## SPRINT 2 BACKLOG

÷	Story ID	<u>Feature</u>	user Story	Acceptance Criteria	<u>Story</u> <u>Points</u>
-	TS3	Database Schema Setup	Sanjana Reddy needs to create a database schema for users, profiles, and historical data, So that the team can store and retrieve data.	<ol> <li>Schema includes tables for users, Profiles, and HistoricalData.</li> <li>Database uses a free solution (e.g., SQLite).</li> <li>Basic CRUD operations implemented for user and profile data.</li> </ol>	3

#### TEST CASES SPRINT 2

Test Case			Test				
<u>ID</u>	Story ID	<u>Feature</u>	Description	<u>Test Steps</u>	Expected Result	<u>Actual Result</u>	<u>Status</u>
TC4.1	US4	User Registration	Register with valid credentials	<ol> <li>Open registration form</li> <li>Enter test@example.com</li> <li>Enter password:         Test@1234</li> <li>Click Register</li> </ol>	Redírected to logín page after successful regístratíon	X Registration failed – not redirected	Failed
TC4.2	US4	User Registration	Invalid email format	<ol> <li>Open registration form</li> <li>Enter email: invalident</li> <li>email</li> <li>Enter valid password</li> <li>Click Register</li> </ol>	Error message about ínvalíd emaíl format	X Valídatíon skípped – allowed ínvalíd emaíl ínput	Failed
TC4.3	US4	User Registration	Password too short	1. Open registration form 2. Enter valid email 3. Enter password: 123 4. Click Register	Error message about password length	X Error not triggered for short password	Faíled

## TEST CASES SPRINT 2

		-1		Test		Expected	A 1 1 1		-
Test (	case ID	Story ID	<u>Feature</u>	<u>Description</u>	<u>Test Steps</u>	<u>Result</u>	Actual Result	<u>Status</u>	
TC4.4		US4	User Registration	Emaíl already ín use	1. Open registration form 2. Enter already registered email 3. Enter valid password 4. Click Register	Error shown: emaíl already ín use	X Duplicate email allowed – no validation	<b>Failed</b>	
TC5.1		U.S.5	User Logín	Logín wíth valíd credentíals	1. Go to login page 2. Enter registered email and password 3. Click Login	Redírected to dashboard	➤ Login form unresponsive – dashboard not reached	∓aíled	
TC5.2		u.S.5	User Login	Invalid login	1. Go to login page 2. Enter wrong email or password 3. Click Login	Error message for invalid credentials	X No error shown - system allowed invalid login	Failed	

## TEST CASES SPRINT 2

Test Case ID	Story ID	<u>Feature</u>	Test Description	Test Steps	Expected Result	Actual Result	<u>status</u>	
TC6.1	US6	Save Profile Data	Save new profile	<ol> <li>Open profile form</li> <li>Fill out all fields (age, risk level, goals)</li> <li>Click Save</li> </ol>	Data saved and confirmation shown	Profile saved successfully	Passed	
TC6.2	US6	Save Profile Data	update existing profile	<ol> <li>Open profile</li> <li>Modify any</li> <li>field</li> <li>Click Save</li> </ol>	updated profile and confirmation message shown	Profile updated successfully	Passed	
			Fetch 30-day data	1. Trigger backend to fetch historical data 2. Select stocks like AAPL, GOOGL, etc. 3. Inspect returned	30-day príce/trend data fetched	Data fetched as		
TC2.1	TS2	API Integration	for 5 stocks	data	correctly	expected	Passed	

## TEST CASES SPRINT 2

Test Case ID	Story ID	<u>Feature</u>	<u>Test Description</u>	<u>Test Steps</u>	Expected Result	<u>Actual Result</u>	<u>Status</u>
TC2.2	TS2	API Integration	API faílure handlíng	1. Símulate API faílure (e.g., dísconnect) 2. Trígger fetch agaín	Graceful error handling, app stays responsive	Error handled correctly, no crash	Passed
TC2.3	TS2	API Integration	Data caching	<ol> <li>Fetch data for the first time</li> <li>Fetch same data again</li> <li>Monitor performance/logs</li> </ol>	Second fetch should use cache, faster response time	Cached data used, response improved	Passed
TC3.1	TS3	DB Schema Setup	Check required tables	1. Inspect DB schema 2. Ensure Users, Profiles, and HistoricalData tables exist	All required tables present in schema	Tables found as expected	Passed

## TEST CASES SPRINT 2

Test Case ID	Story ID	<u>Feature</u>	Test Description	<u>Test Steps</u>	Expected Result	<u>Actual Result</u>	<u>status</u>
TC3.2	TS3	DB Schema Setup	CRUD on Users	<ol> <li>Create user</li> <li>Read user</li> <li>Update user</li> <li>Delete user</li> </ol>	All CRUD operations successful	All operations completed successfully	Passed
TC3.3	TS3	DB Schema Setup		1. Create profile linked to user 2. Read profile 3. update profile 4. Delete profile 5. Validate user- profile auth relationship	All operations work, profile links to correct user	CRUD passed but  X Auth check failed – user- profile linkage not verified	<b>F</b> ailed

#### STORIES COMPLETED IN SPRINT 2

<u>US6</u> - Save Profile Data TS2 - Backend API Integration TS3 - DB Schema Setup

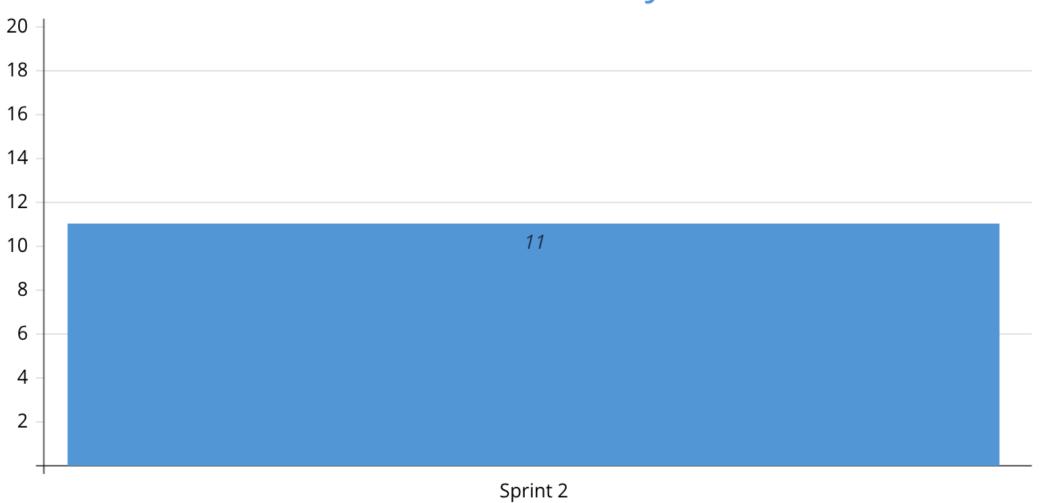
#### STORIES INCOMPLETED IN SPRINT 2

US4 - User Registration

US5 - User Login

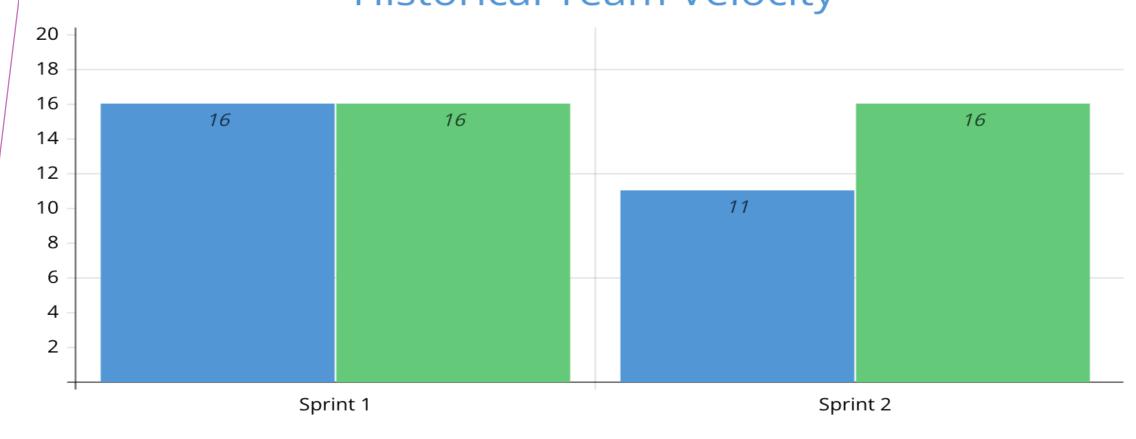
## TEAM VELOCITY

#### Team Velocity



## HISTORICAL TEAM VELOCITY

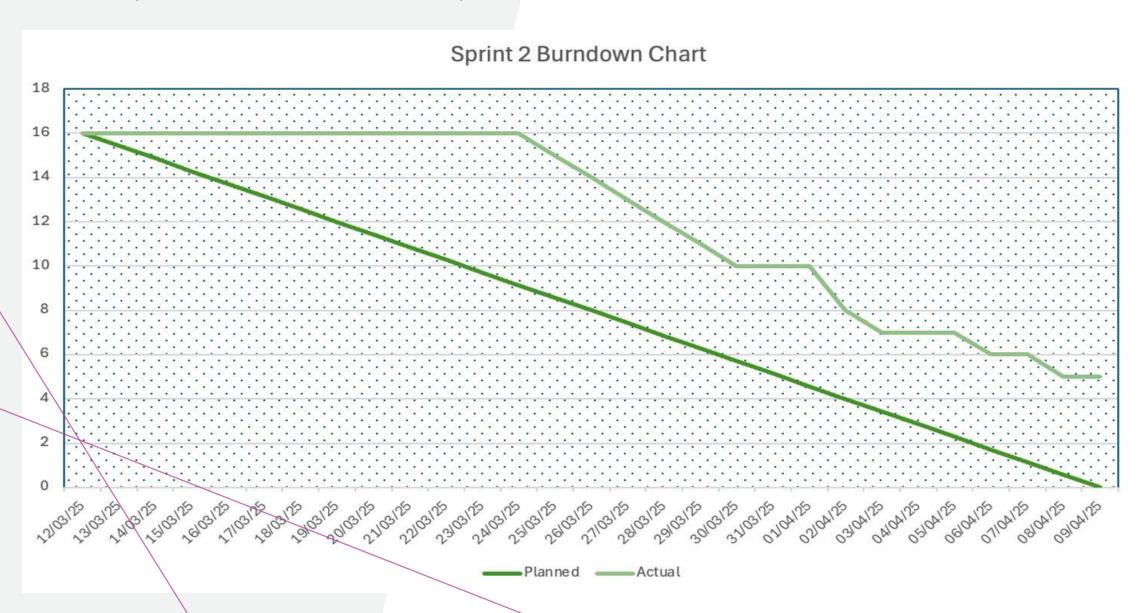




Completed

Commited

## BURNDOWN CHART



#### COMPLETED/COMMITTED RATIO - SPRINT 2



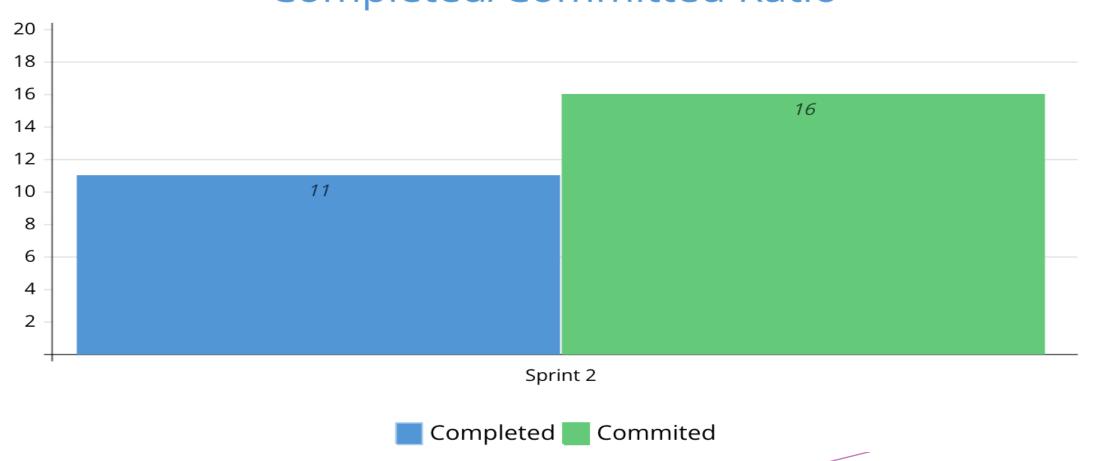




Committed Story Points: 16 Completed Story Points: 11 Completed/Committed Ratio:  $(11/16) \times 100 = 68.75\%$ 

## COMPLETED/COMMITTED RATIO - SPRINT 2





## RETROSPECTIVE

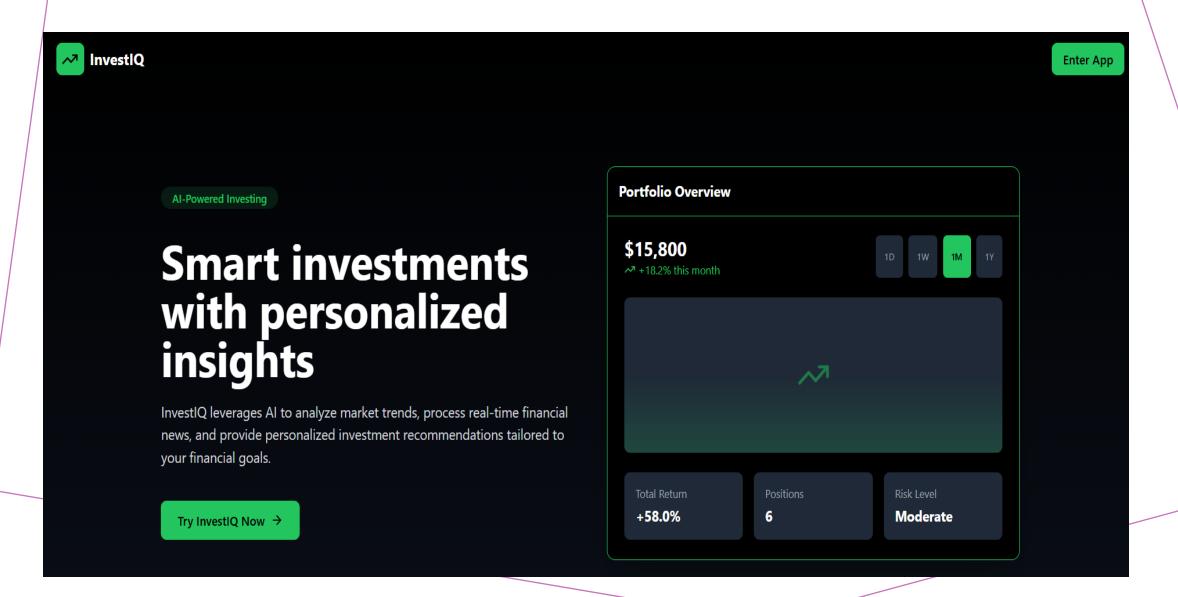
Welcome Ruchitha reddy R My Boardz Export Logout												
Techno Stack												
What we	ent well 🗘	What can be	improved 🗘	Action It	ems 😷							
Team coordination	Team coordination Completed most of the tasks for sprint 2		knowledge sharing	Active learning	have more meaningful commits and branches							
+0	+ O	+ O	+1	+0	+0							
Backend Api integration	Backend Api integration Implementation of testing model		internal team communication	deadline submissions in internal team deadline for inviduals								
+0	+0	+0	+0	+0								
front end ui was good	front end ui was good team collaboration		git commits									
+0	+0	+ 0	+ 0									
Db schema setup + 0												

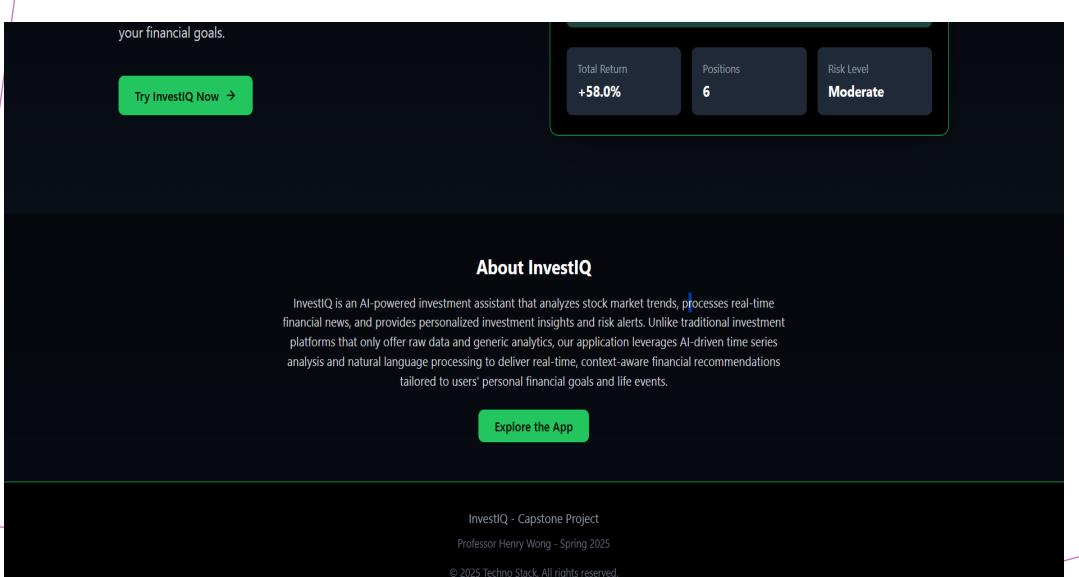
# SPRINT 3 PLANNING

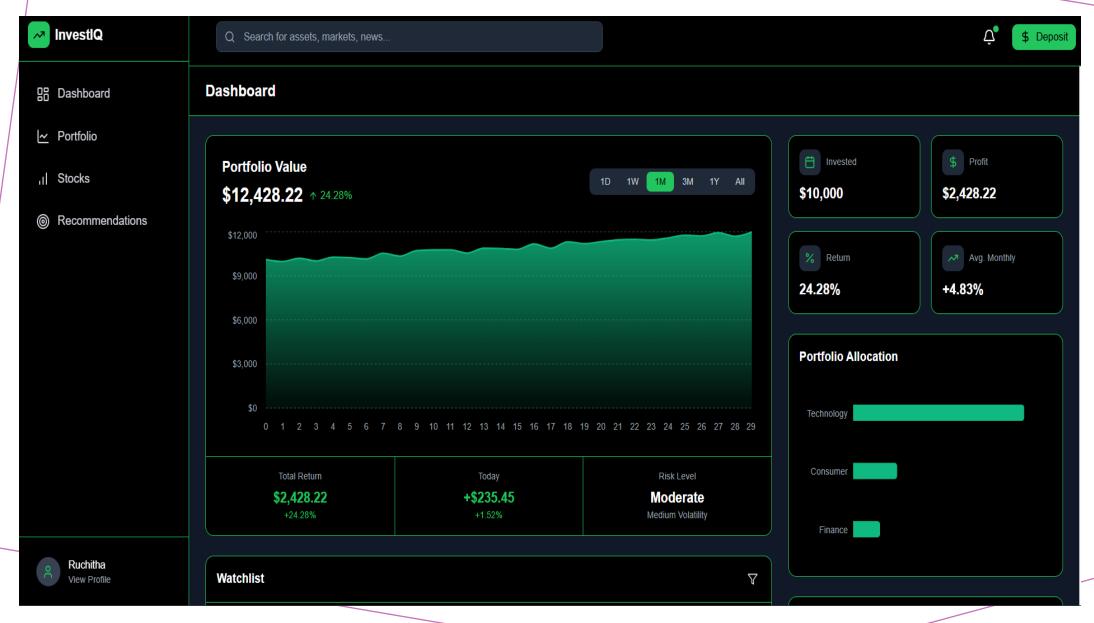
Stor				<u>Story</u>
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и\$8	Market News Dísplay	Thomas Shelby wants to see recent market news, So that he can stay informed.	1.Dashboard includes a section with market news headlines. 2.News fetched from a free API (e.g., NewsAPI) and displayed as a list. 3.Each news item includes title, source, and link to the article.	5
usg	Personalízed Recommendatíons	Thomas Shelby wants to see personalized investment recommendations, So that he can make informed decisions.		5
		As a developer needs to implement a rule- based recommendation system, So that	1.Algorithm uses historical trends (e.g., 30-day moving average) and user risk tolerance.  2.Example rule: Recommend stocks with upward trends for low-risk users.	

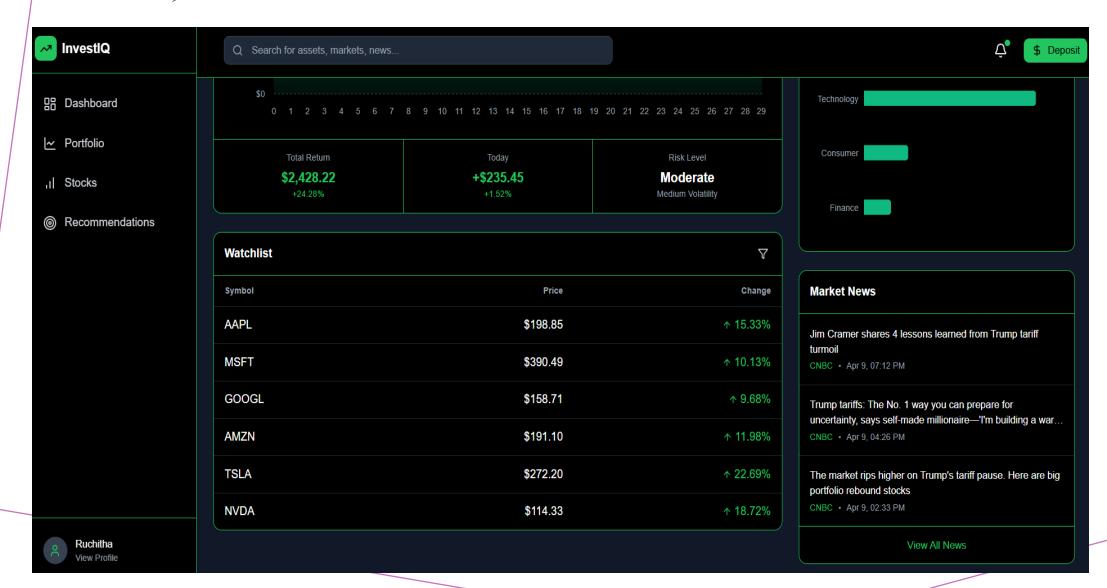
## SPRINT 3 PLANNING

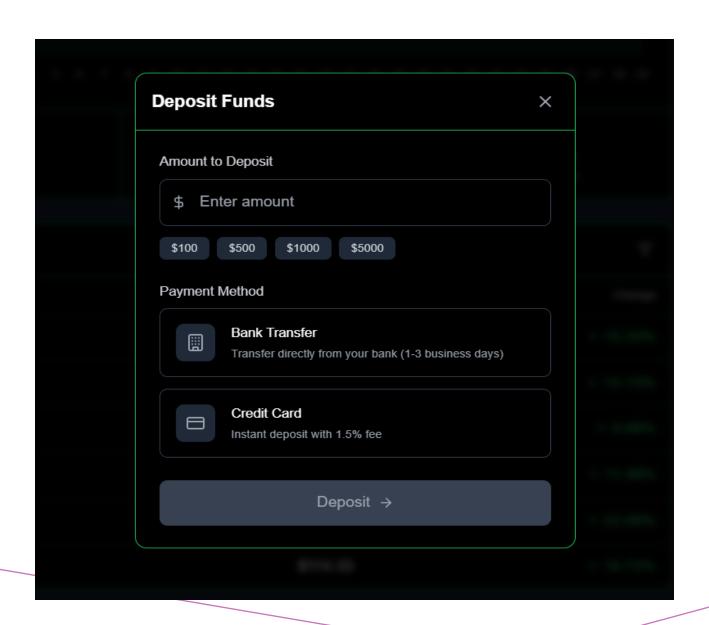
Story ID	<u>Feature</u>	<u>user Story</u>	Acceptance Criteria	<u>Story</u> <u>Points</u>
TS5	News API Integration  User Registration	As a developer needs to integrate a free news API (e.g., NewsAPI), So that the team can display market news.  Aarav Sharma wants to register with his email and password, So that he can access the Investi@platform.	<ol> <li>Backend fetches news articles related to finance.</li> <li>News data is cached for 24 hours.</li> <li>Error handling for API failures.</li> <li>Aarav can enter email and password on a registration form.</li> <li>System validates email format and ensures password is at least 8 characters.</li> <li>Upon successful registration, Aarav is redirected to login page. 4. Error messages shown if email is in</li> </ol>	3
US5	User Logín	Aarav Sharma wants to log in with his email and password, So that he can access his dashboard.	<ol> <li>use or inputs are invalid.</li> <li>Aarav can enter email and password on a login form.</li> <li>System validates credentials and logs Aarav in if correct.</li> <li>Aarav is redirected to the dashboard upon successful login.</li> <li>Error message shown if credentials are incorrect.</li> </ol>	2

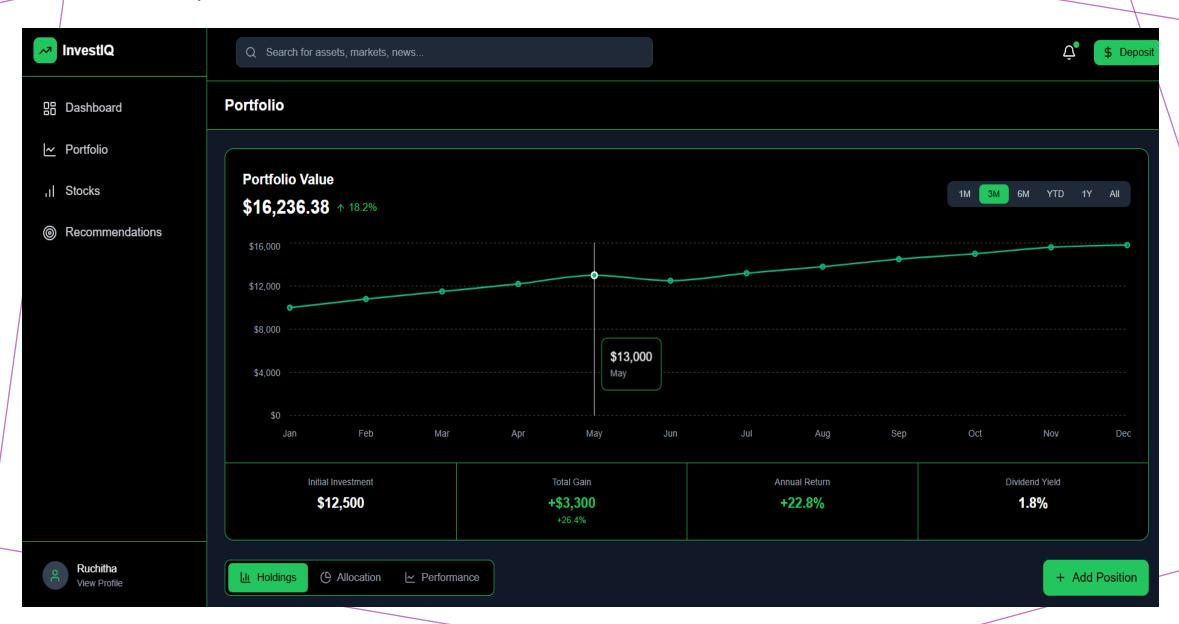




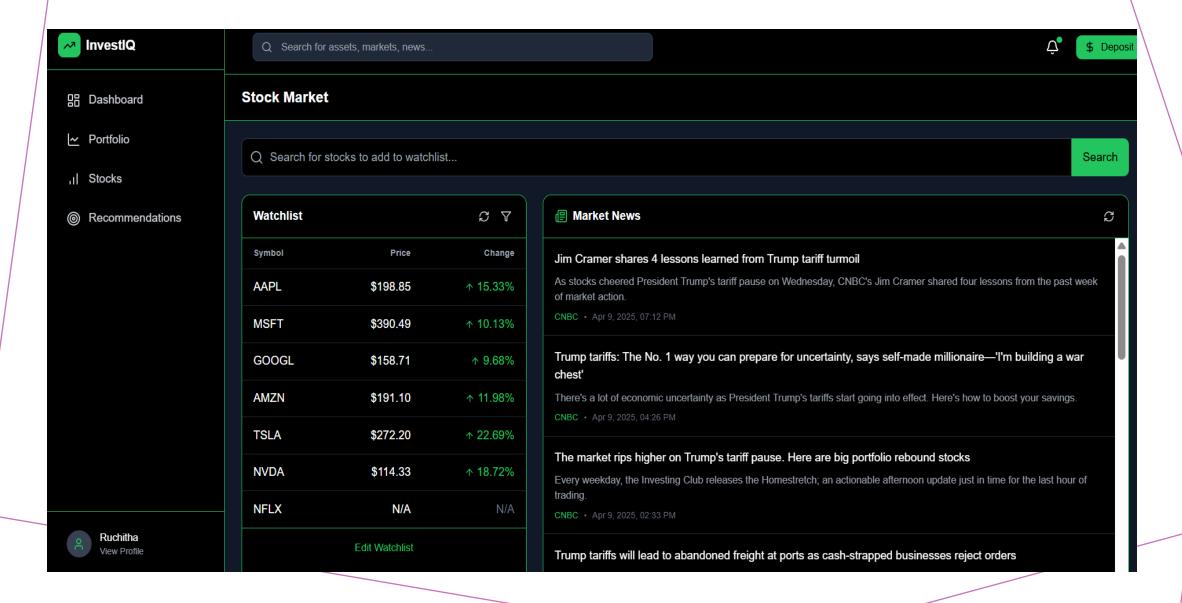


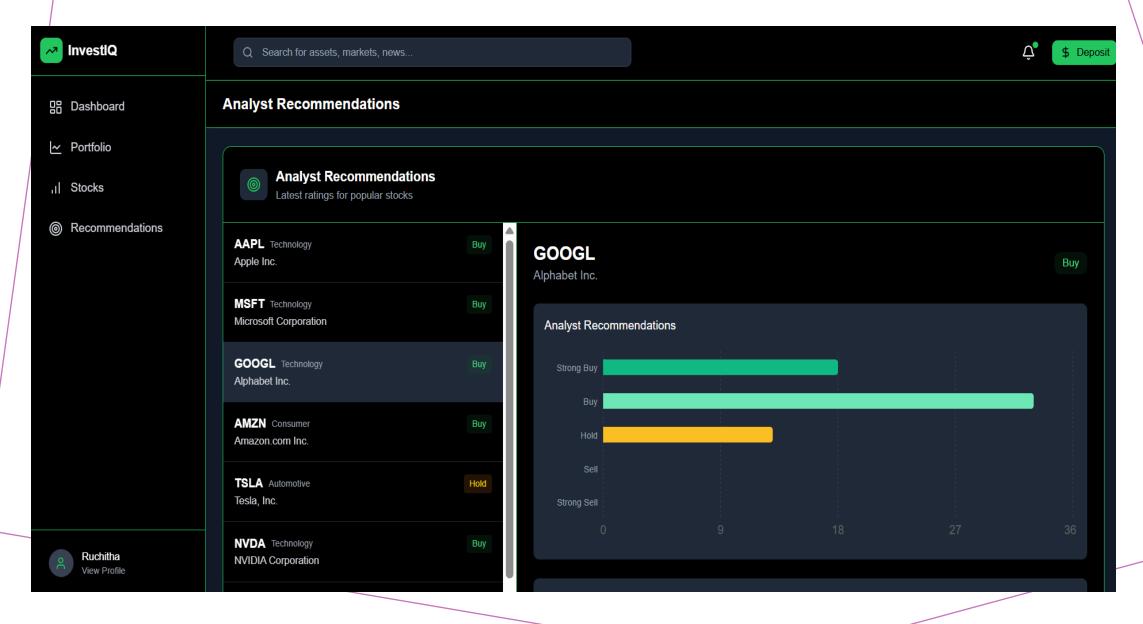


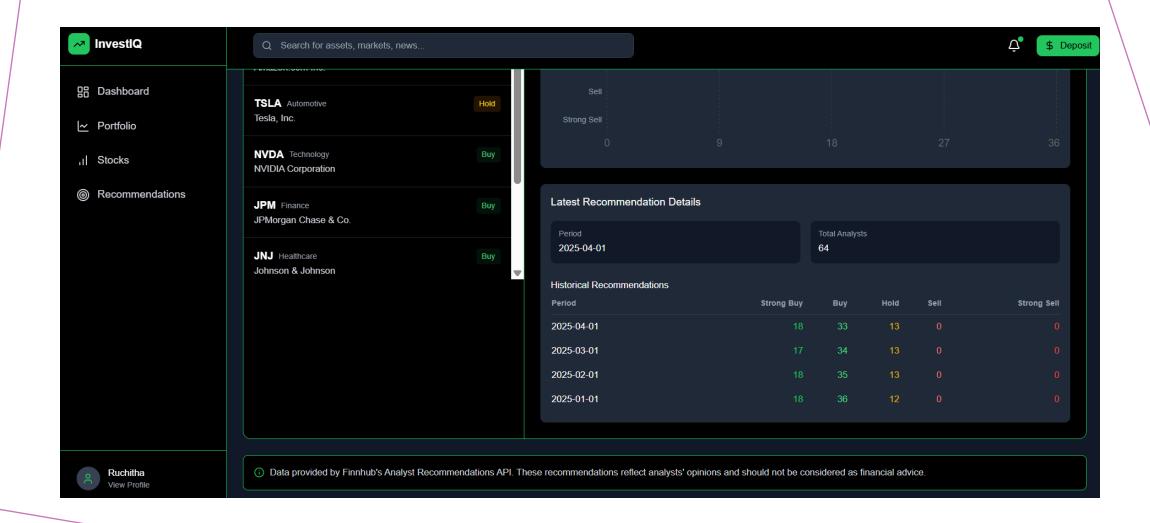


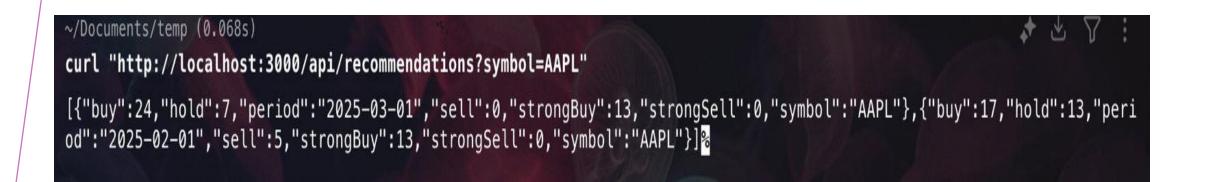


InvestIQ	Q Search for	assets, markets, new	S								$\hat{\bigtriangledown}_{\!\!\!\!\bullet}$	\$ Deposit
□□ Dashboard	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<u>∼</u> Portfolio		\$12,500		+5	otal Gain <b>53,300</b> +26.4%			Annual Return +22.8%			nd Yield <b>8%</b>	
Stocks    Recommendations	endations ( Allocation  Performance										+ Ad	ld Position
	Your Holdings	5										7
	Symbol	Name		Shares	Avg. Cost		Price	Value	Weight	G	ain/Loss	Actions
	AAPL	Apple Inc.		15	\$160.75	,	\$187.68	\$2815.20	17.5%	↑ \$404.25 (16	6.75%)	
	MSFT	Microsoft Corp.		10	\$380.25		\$419.65	\$4196.50	26.1%	↑ \$394.00 (10	0.35%)	
	GOOGL	Alphabet Inc.		8	\$125.50	;	\$148.90	\$1191.20	7.4%	↑ <b>\$1</b> 87.20 (18	8.65%)	
	AMZN	Amazon.com Inc		12	\$150.80	;	\$182.41	\$2188.92	13.6%	↑ \$379.32 (20	0.96%)	
	NVDA	NVIDIA Corp.		5	\$780.40		\$950.02	\$4750.10	29.5%	↑ \$848.10 (2°	1.73%)	
Ruchitha View Profile	JPM	JPMorgan Chase	& Co.	6	\$160.25		\$182.41	\$1094.46	6.8%	↑ \$133.00 (13	3.83%)	









## WIKI PAGE LINK

https://github.com/htmw/2025S-Techno-Stack

## LIVE DEMO



