Planned Sprint	Actual Sprint	US ID	User Story Description
S1	S1	US-001	Environment Setup & Repository Initialization
S1	S1	US-002	Backend Setup using FastAPI and Uvicorn
S2	S2	US-003	Integration of APIs (GNews,Twitter)
S2	S2	US-004	OpenAI GPT & LLaMA Integration for NLP
S3	S3	US-005	Data Collection Pipeline Initialization
S3	S3	US-006	Data Cleaning & Sentiment Computation
S4	S4	US-007	Trend Forecasting Model Development
S4	S4	US-008	Alert System Configuration (spikes, sentiment, trends)
S5	S5	US-009	Frontend Development (React)
S5	S5	US-010	Dashboard UI Design & Chart Visualization
S6	S6	US-011	Competitor & Domain Selector Modal
S6	S6	US-012	Customizable Filters (Time Range, Sentiment, Source)
S7	S7	US-013	API–Frontend Integration
S7	S7	US-014	Alert Visualization and Notification Center
S8	S8	US-015	Testing of Data APIs and Alert Logic
S8	S8	US-016	Dashboard Deployment
S9	S9	US-017	News Feed Page with Filtering Options
S10	S10	US-018	Social Media Sentiment Analytics Page
S10	S10	US-019	Competitor Insights Panel with Metrics
S11	S11	US-020	Export Feature for Reports and Data Charts
S11	S11	US-021	Data Validation and Error Handling System
S12	S12	US-022	Real-time Alert Push via Slack Webhook
S12	S12	US-023	Automated Data Refresh & Caching Mechanism
S13	S13	US-024	Final Report & Presentation Preparation
S13	S13	US-025	User Onboarding Documentation
S14	S14	US-026	Competitor Benchmark Comparison Table
S14	S14	US-027	Interactive Trend Timelines
S15	S15	US-028	Insight Export to PDF
S15	S15	US-029	Alerts Export to PDF

MoSCoW	Dependency	Assignee	Status
MUST HAVE	VS Code, Git	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Python 3.8+, Pip	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	API Keys	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	OpenAI API Key	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Pandas, Requests	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	TextBlob, NumPy	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	Prophet	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Slack Webhook	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Node.js, npm	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Recharts, Lucide Icons	Sibitha Namakkal Ravikumar	3- Completed
COULD HAVE	React Modal, Context API	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	React State Management	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	CORS Middleware	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	Slack API	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Postman, cURL	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Render, GitHub CI/CD	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	News API Data	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Reddit & Twitter API	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	Chart Components	Sibitha Namakkal Ravikumar	3- Completed
COULD HAVE	CSV Export Package	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	Exception Logging	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	Slack API	Sibitha Namakkal Ravikumar	3- Completed
COULD HAVE	LocalStorage, Cache	Sibitha Namakkal Ravikumar	3- Completed
MUST HAVE	PowerPoint, Canva	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	Readme, Docsify	Sibitha Namakkal Ravikumar	3- Completed
COULD HAVE	Table Library	Sibitha Namakkal Ravikumar	3- Completed
SHOULD HAVE	Plotly, Matplotlib	Sibitha Namakkal Ravikumar	3- Completed
COULD HAVE	ReportLab	Sibitha Namakkal Ravikumar	3- Completed
COULD HAVE	ReportLab	Sibitha Namakkal Ravikumar	3- Completed

NOTES: Task sizing should be between 0.5 to 12 hours

US ID	Task ID	Task Description	Task Start Date	Task Completion Date	Team Member	Activity
US-001	1	Set up API configurations and data collection functions	20/Aug/25	21/Aug/25	Sibiha Namakkal Ravikumar	Coding
US-001	2	Implement data collection from NewsAPI	22/Aug/25	23/Aug/25	Sibiha Namakkal Ravikumar	Coding
US-001	3	Implement data collection from Reddit	24/Aug/25	25/Aug/25	Sibiha Namakkal Ravikumar	Coding
US-001	4	Implement data collection from GNEWS	26/Aug/25	27/Aug/25	Sibiha Namakkal Ravikumar	Coding
US-002	5	Create data preprocessing functions	28/Aug/25	29/Aug/25	Sibiha Namakkal Ravikumar	Coding
US-002	6	Implement text cleaning and normalization	8/30/2025	31-Aug-25	Sibiha Namakkal Ravikumar	Coding
US-002	7	Handle missing data and duplicates	9/1/2025	2-Sep-25	Sibiha Namakkal Ravikumar	Coding
US-003	8	Set up model for sentiment analysis	9/3/2025	5-Sep-25	Sibiha Namakkal Ravikumar	ML Integration
US-003	9	Implement sentiment scoring system	9/6/2025	7-Sep-25	Sibiha Namakkal Ravikumar	Coding
US-003	10	Test sentiment analysis on sample data	9/8/2025	9-Sep-25	Sibiha Namakkal Ravikumar	Testing
US-004	11	Implement Prophet forecasting model	9/10/2025	12-Sep-25	Sibiha Namakkal Ravikumar	ML Integration
US-004	12	Create forecast visualization components	9/13/2025	14-Sep-25	Sibiha Namakkal Ravikumar	Coding

US-005	13	Set up alert thresholds and conditions	9/15/2025	16-Sep-25	Sibiha Namakkal Ravikumar	Coding
US-005	14	Implement Slack integration for alerts	9/17/2025	19-Sep-25	Sibiha Namakkal Ravikumar	Integration
US-006	15	Design main dashboard layout	9/20/2025	22-Sep-25	Sibiha Namakkal Ravikumar	Design
US-006	16	Implement sentiment timeline visualization	9/23/2025	24-Sep-25	Sibiha Namakkal Ravikumar	Coding
US-006	17	Create source analysis charts	9/25/2025	26-Sep-25	Sibiha Namakkal Ravikumar	Coding
US-006	18	Implement trend analysis features	9/27/2025	28-Sep-25	Sibiha Namakkal Ravikumar	Coding
US-007	19	Prepare requirements.txt for deployment	9/29/2025	30-Sep-25	Sibiha Namakkal Ravikumar	Deployment
US-007	20	Deploy to Streamlit Cloud	10/1/2025	3-Oct-25	Sibiha Namakkal Ravikumar	Deployment
US-008	21	Implement sample data generation	10/4/2025	5-Oct-25	Sibiha Namakkal Ravikumar	Coding
US-008	22	Add error handling for missing files	6/Oct/25	7/Oct/25	Sibiha Namakkal Ravikumar	Coding
US-009	23	Design competitor analysis features	8/Oct/25	9/Oct/25	Sibiha Namakkal Ravikumar	Design

Status	Original Estimate Effort (In	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
	111	**49**	**58**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SPRINT 1 BACKLOG											
3- Completed	6	3	3	0	0	0	0	0	0	0	0
3- Completed	4	2	2	0	0	0	0	0	0	0	0
3- Completed	5	2	3	0	0	0	0	0	0	0	0
3- Completed	4	2	2	0	0	0	0	0	0	0	0
3- Completed	6	3	3	0	0	0	0	0	0	0	0
3- Completed	5	2	3	0	0	0	0	0	0	0	0
3- Completed	4	2	2	0	0	0	0	0	0	0	0
3- Completed	6	2	3	1	0	0	0	0	0	0	0
3- Completed	5	2	3	0	0	0	0	0	0	0	0
3- Completed	3	1	2	0	0	0	0	0	0	0	0
3- Completed	7	3	4	0	0	0	0	0	0	0	0
3- Completed	5	2	3	0	0	0	0	0	0	0	0

3- Completed	4	2	2	0	0	0	0	0	0	0	0
3- Completed	5	2	2	1	0	0	0	0	0	0	0
3- Completed	6	3	2	1	0	0	0	0	0	0	0
3- Completed	5	2	3	0	0	0	0	0	0	0	0
3- Completed	4	2	2	0	0	0	0	0	0	0	0
3- Completed	5	2	3	0	0	0	0	0	0	0	0
3- Completed	3	1	2	0	0	0	0	0	0	0	0
3- Completed	4	2	1	1	0	0	0	0	0	0	0
3- Completed	5	2	3	0	0	0	0	0	0	0	0
3- Completed	4	2	2	0	0	0	0	0	0	0	0
3- Completed	6	3	3	0	0	0	0	0	0	0	0

Day 11	Day 12	Day 13	Day 14
0	**0**	**0**	**0**
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Sprint	Day	Impediments
Sprint 1	Day 2	API rate limiting issues with NewsAPI
Sprint 1	Day 4	Difficulty handling different date formats from various APIs
Sprint 2	Day 6	model loading slowly on first run
Sprint 2	Day 8	Memory issues with large datasets
Sprint 3	Day 12	Prophet forecasting giving inconsistent results
Sprint 3	Day 14	Dashboard performance issues with large datasets
Sprint 4	Day 18	Streamlit deployment failing due to dependency conflicts
Sprint 4	Day 20	File not found errors on fresh deployment
Sprint 5	Day 24	Complex competitor analysis visualization requirements

Action Taken
Implemented error handling and request delays
Created unified date parsing function
Added model caching and pre-loading
Implemented data chunking and garbage collection
Adjusted model hyperparameters and validation
Fixed Requirement.txt
Optimized data aggregation and plotting
Added sample data generation and better error handling
Researching better charting libraries and approaches

SL #	Sprint #	Sprint start date	Sprint end date	Team member name	Start Doing
1	Sprint 1	8/20/2025	9/2/2025	Sibitha Namakkal Ravikumar	Writing comprehensive unit tests for each module
2	Sprint 2	9/3/2025	9/19/2025	Sibitha Namakkal Ravikumar	Performance benchmarking for ML models
3	Sprint 3	9/20/2025	10/5/2025	Sibitha Namakkal Ravikumar	Creating backup data sources for API failures
4	Sprint 4	10/6/2025	10/13/2025	Sibitha Namakkal Ravikumar	Monitoring application performance in production

Stop Doing	Continue Doing
Underestimating API integration complexity	Regular code reviews and documentation
Loading large models without caching	Monitoring memory usage during development
Hardcoding configuration values	Regular deployment testing
Manual deployment processes	Automated testing before deployment

Action taken
Implemented test suite for data collection modules
Added model caching and memory optimization
Implemented configuration management system
Set up CI/CD pipeline for Streamlit deployment