

## Project Planning Phase

Project Name	AI-Enhanced Intrusion Detection System
Maximum Marks	6 Marks

**Product Backlog, Sprint Schedule, and Estimation: -**

Sprint No.	Duration (Weeks)	Start Date	End Date	Goals / Deliverables	Estimation (Person-Days)	Notes
Sprint 1	2	2025-06-18	2025-06-25	Requirements gathering, setup of tools and environment, data acquisition	10	Install network traffic capture tools
Sprint 2	2	2025-06-18	2025-06-25	Data preprocessing workflows and feature generation	12	Write feature extraction scripts
Sprint 3	3	2025-06-18	2025-06-25	Basic AI model creation (traditional machine learning)	15	Model training/testing using Random Forest, SVM
Sprint 4	3	2025-06-18	2025-06-25	Deep learning architecture and initial model testing	18	Prototype LSTM and CNN models for anomaly detection
Sprint 5	2	2025-06-25	2025-07-08	Integrate detection model with live data feed	14	Link AI models with streaming data input
Sprint 6	2	2025-07-09	2025-07-22	Alert generation mechanism and UI dashboard concept	12	Build alert system and design visuals

Sprint 7	2	2025-07-23	2025-08-05	End-to-end testing, performance enhancements, documentation	12	Evaluate false positives, improve efficiency
Sprint 8	1	2025-08-06	2025-08-12	Final rollout and user onboarding	8	Deploy final solution and conduct training

Sprint No.	Start Date	End Date	Milestone Description	Deliverables
Sprint 1	2025-06-18	2025-06-25	Kick-off, initial setup of environment and data	Requirement documentation, data capture tools installed
Sprint 2	2025-06-18	2025-06-25	Data preprocessing system implemented	Initial scripts and example processed data
Sprint 3	2025-06-18	2025-06-25	Foundational AI models established and validated	Trained ML models with evaluation metrics
Sprint 4	2025-06-18	2025-06-25	Completed development of DL models	Functional deep learning models, source code
Sprint 5	2025-06-25	2025-07-08	Model integration with streaming data achieved	Prototype of live detection mechanism
Sprint 6	2025-07-09	2025-07-22	Alerts and dashboard prototypes finished	Alert system implementation, dashboard wireframes
Sprint 7	2025-07-23	2025-08-05	Completed system testing and refinement	Testing summary, optimization outcomes
Sprint 8	2025-08-06	2025-08-12	Deployment finalized and users trained	Live system deployed, user training material