# Project Plan

Development of Custom Open-Source Intelligent Application

## Introduction:

This project develops a Python-based open-source desktop application for collecting, analyzing, and visualizing IP threat intelligence. By aggregating data from multiple public APIs, the dashboard provides cybersecurity analysts with actionable insights, presented through a graphical user interface with capabilities for real-time analysis and exportable reports.

## Objective:

To deliver a fully functional, open-source threat intelligence dashboard that enables efficient retrieval, filtering, and visualization of IP-based threat data through API integrations and a responsive GUI.

## Technical Architecture:

- Core Language: Python 3.x  
- GUI Framework: Tkinter  
- Visualization: Matplotlib (charts), Folium (geographic maps)  
- APIs: AbuseIPDB, IPInfo, Shodan, GreyNoise, VirusTotal  
- Export Formats: CSV, PDF  
- Concurrency: Multithreading for parallel API calls  
- Platform: Cross-platform desktop application

## Development Methodology:

Agile-Lite – This lightweight agile methodology features short sprints, weekly feedback loops, and progressive integration and testing of core features.

## Project Schedule & Milestones:

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| Milestone | Week | Status |
| Project Kickoff & Team Roles | Week 1 | ✅ Completed |
| API Integration & GUI Setup | Weeks 2–3 | ✅ Completed |
| Analysis & Visualization Modules | Week 4 | ✅ Completed |
| Export Features & Application Polish | Week 5 | ✅ Completed |
| Risk, EV, & Documentation | Week 6 | ✅ Completed |
| Final Touches & GitHub Cleanup | Week 7 | ✅ Completed |

## Internal Deadlines & Monitoring:

- Mid-Sprint Check-ins: Every Wednesday  
- Module Submission Reviews: Every Friday  
- Weekly Demo Walkthroughs: Every Sunday  
- Final Code Freeze: End of Week 6  
  
Milestone monitoring includes weekly MS Teams meetings for demos, GitHub code activity reviews, progress tracking through Earned Value Management (EVM), and weekly risk updates.