AI SaaS Project Tracker and KPI Dashboard

Objective

Build a compact but realistic platform to simulate enterprise software delivery tracking. The app allows creating projects, logging milestones and risks, computing KPIs, exporting data for analytics, and producing narrative summaries suitable for stakeholder updates.

Tech Stack

Backend: Python (Flask)

Database: SQLite (SQLAlchemy ORM)

Frontend: HTML, Bootstrap, JavaScript

Charts: Plotly, Matplotlib, Seaborn

AI Summaries: Hugging Face (google/flan-t5-small) or rule-based fallback

Integration: CSV export for Jira and Power BI

Utilities: Pandas, Dateutil, Requests

Key Features

- Project Management (CRUD, deadlines, owners, progress tracking)

- Milestone Workflow (Pending, In Progress, Completed, Delayed)

- Risk Register (Severity, Mitigation Plan, Status)

- KPI Dashboard (On-Track %, Delay %, High Risk Count, Avg Completion)

- Exports (Power BI-friendly CSVs and Jira Import CSV)

- AI Summary (Automatic executive-style reports)

How to Run Locally

1. Create a virtual environment

   python -m venv .venv

   .venv\Scripts\activate (Windows)

2. Install dependencies

   pip install -r requirements.txt

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3. Initialize database and sample data

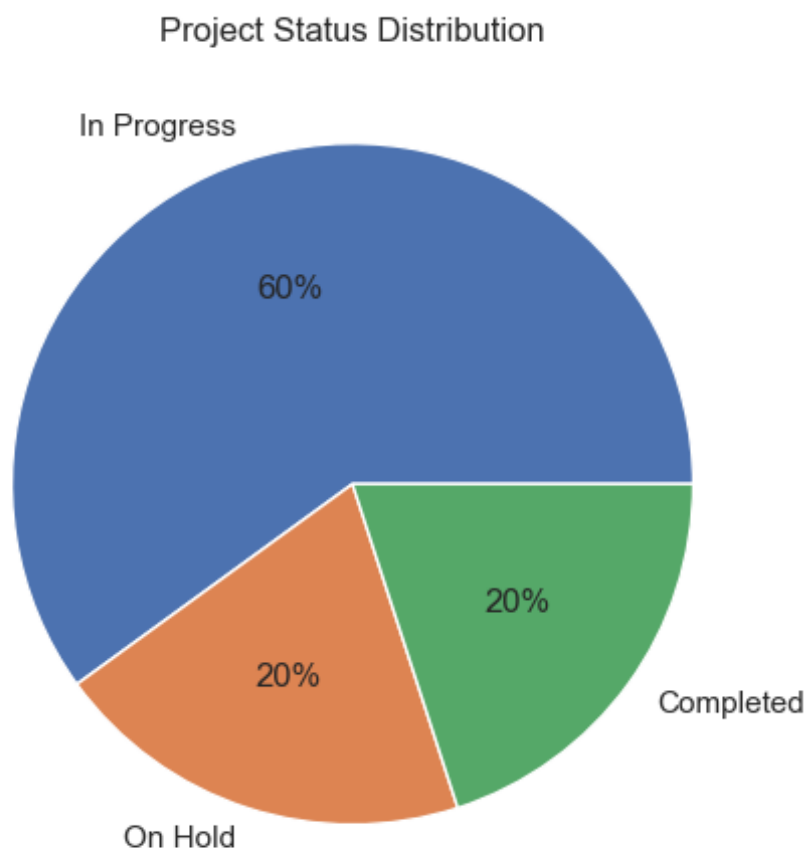   python init_db.py

   python sample_data.py

4. Start the app

   python app.py

Then open http://localhost:5000 in your browser.

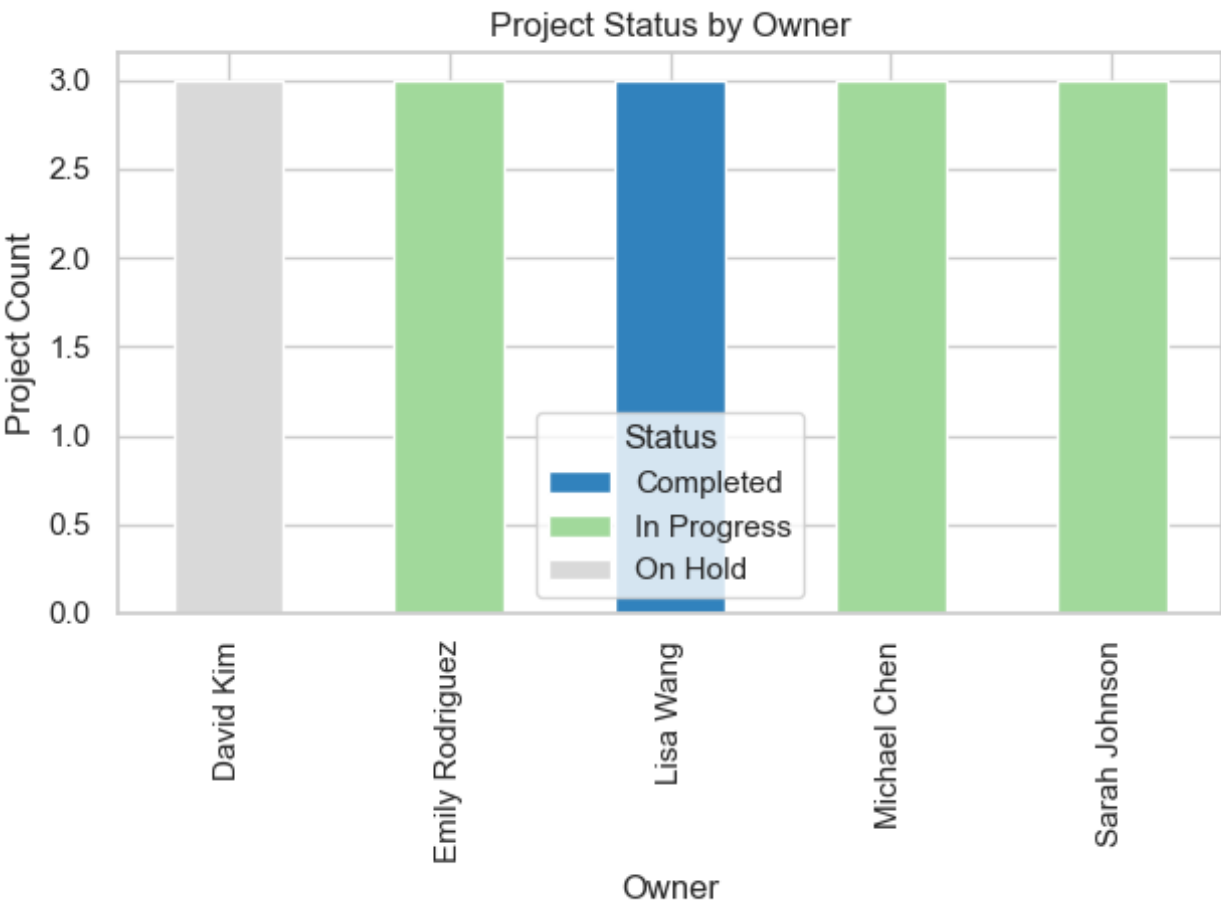## Offline KPI Visualizations (Python Equivalent)

Python-based analytics visualizations simulate Power BI dashboards. The visuals below represent real-time project and risk metrics.
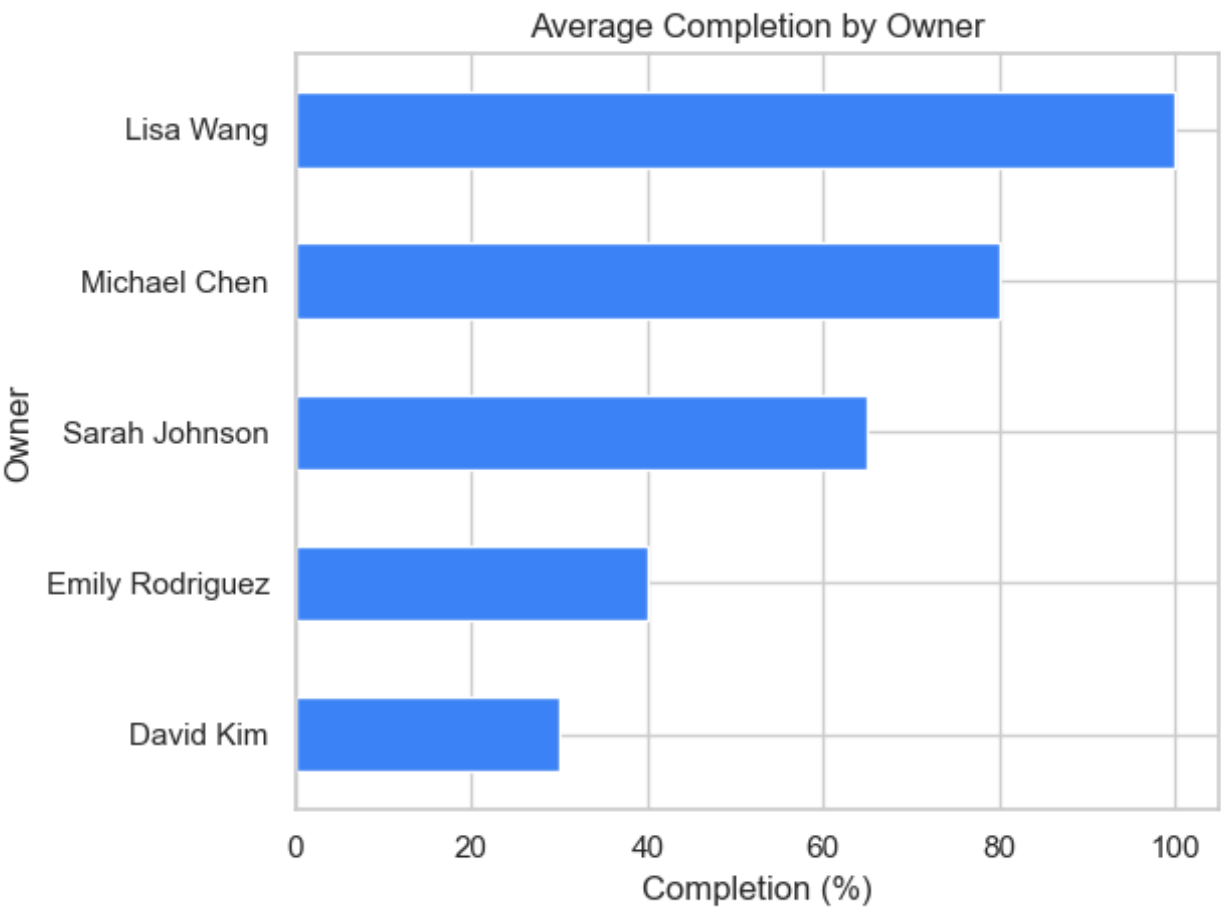
Project Status Distribution

Project Status Distribution

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Project Status by Owner

Project Status by Owner

Completion by Owner

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Average Completion by Owner

Completion vs Days Remaining

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Completion vs Days Remaining
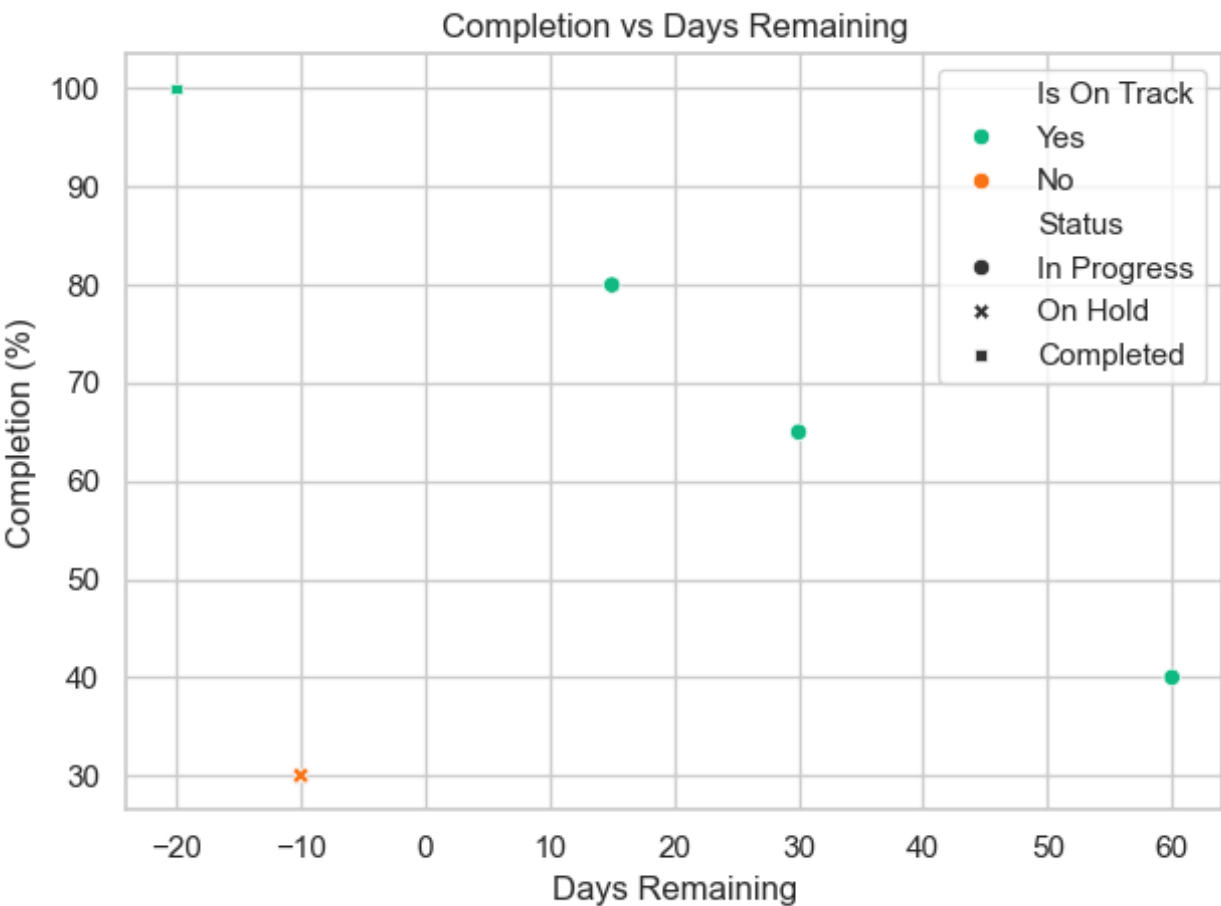
Milestones Completed Over Time

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Milestones Completed Per Month

Risk Severity Distribution

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Risk Severity Distribution

Risk Heatmap

Risk Count by Project and Severity

	High	Medium	Low
API Gateway Implementation	2	1	3
Cloud Migration Initiative	3	2	0
Data Analytics Platform	3	2	1
Mobile App Development	2	1	2
Security Audit & Compliance	4	2	2
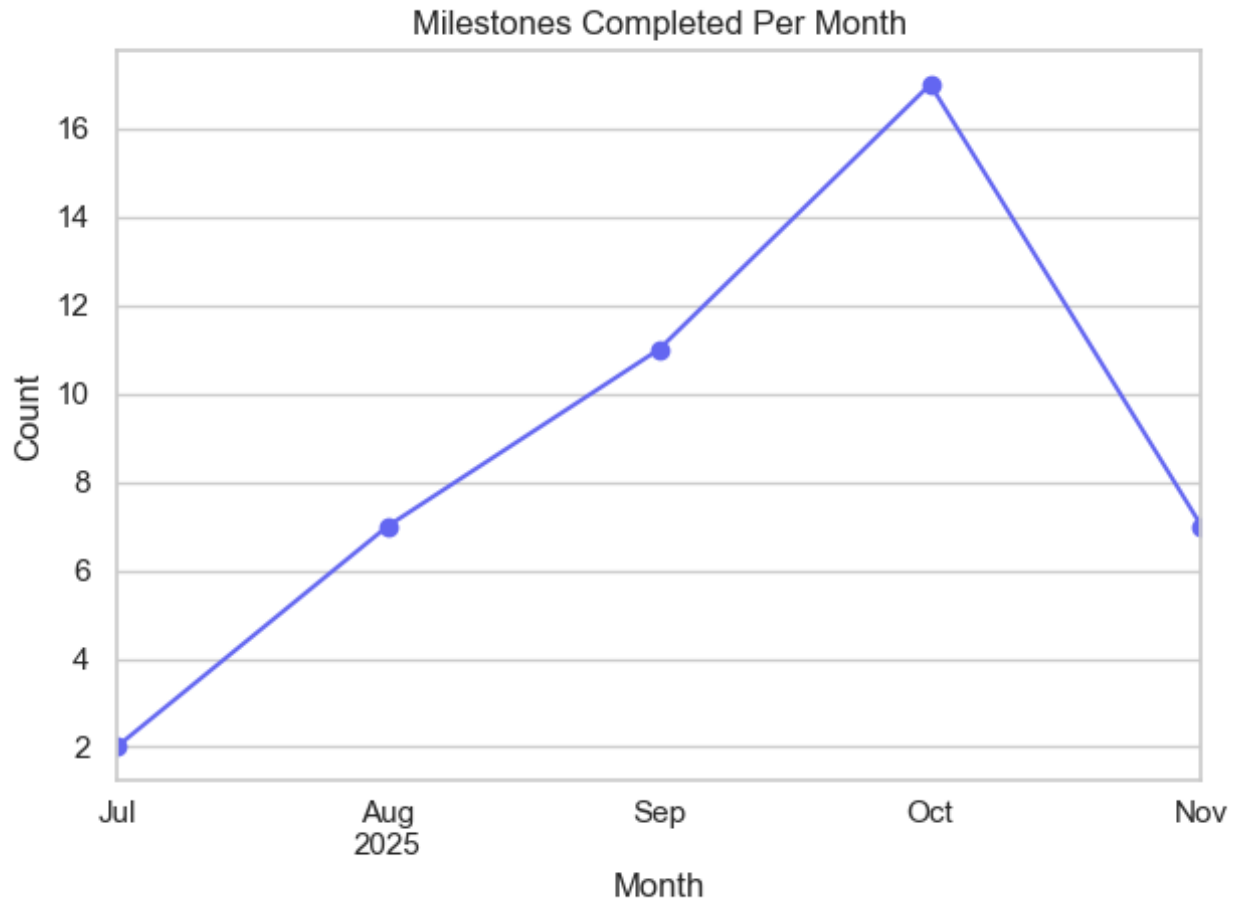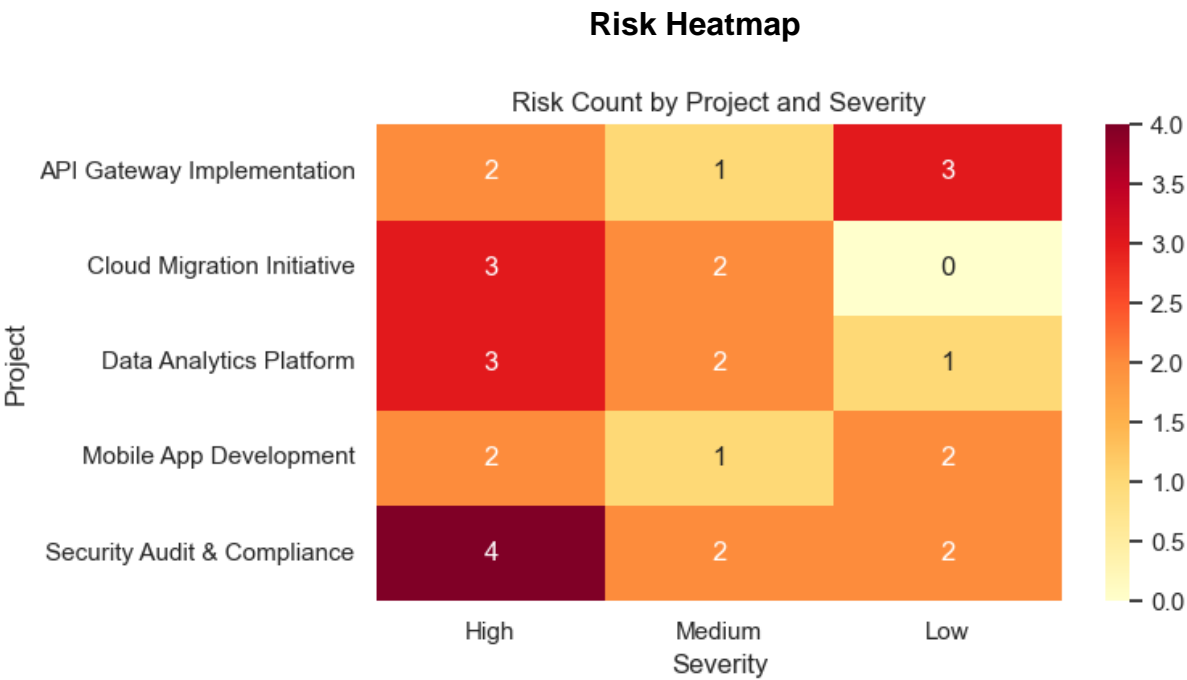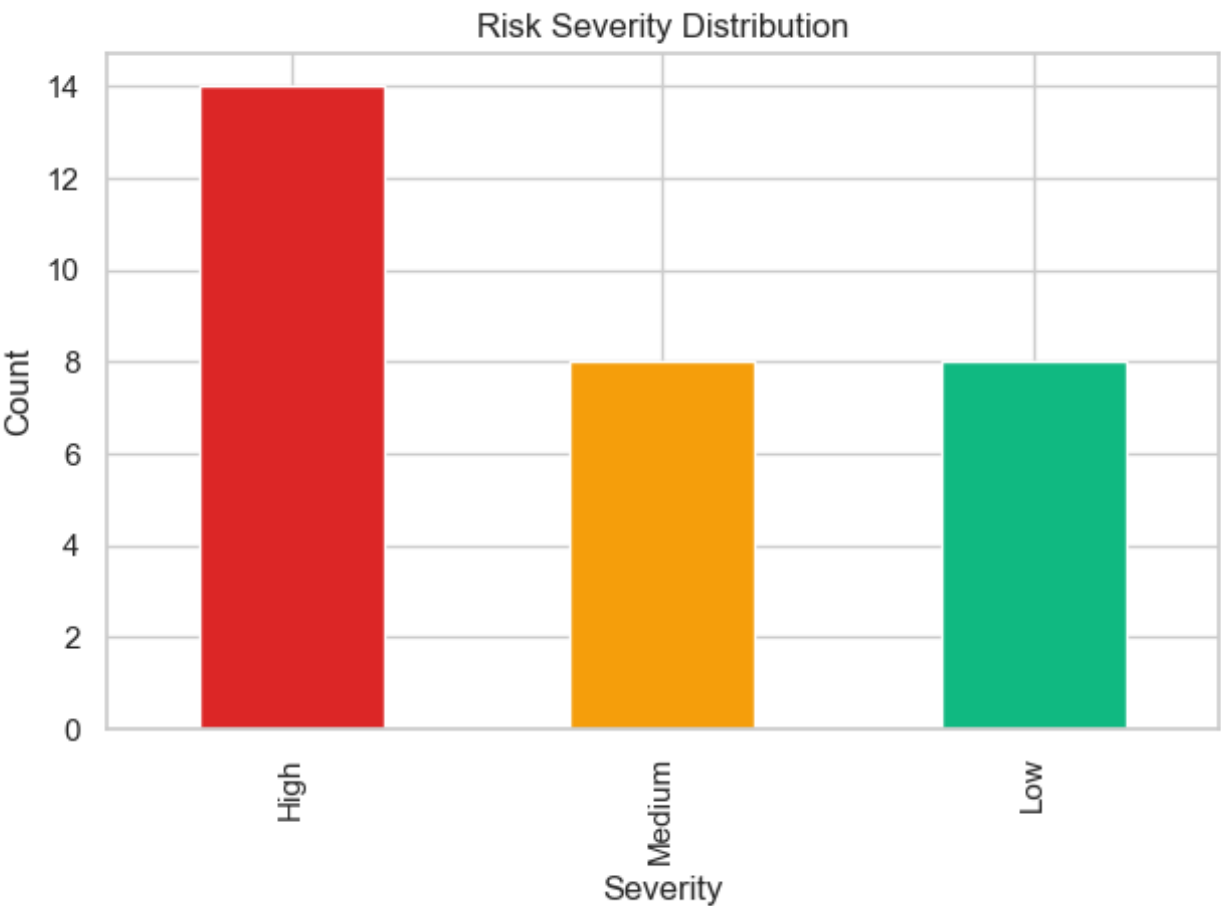
Integrations

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- Jira Integration: Export normalized project, milestone, and risk tables to CSV for import into Jira.

- AI Summary: Uses Hugging Face FLAN-T5 or fallback logic to create natural-language status reports.

- Power BI Integration: Normalized exports support external dashboards.

Future Enhancements

- Role-based access control for multi-user teams.

- Real-time notifications for overdue milestones and high risks.

- Live API connectors for Jira and Power BI.

- Enhanced AI for sprint review summaries and stakeholder briefs.

Conclusion

This project demonstrates full-stack delivery, analytics-driven thinking, and AI-enhanced reporting. It aligns closely with Rubrik's Engineering Program focus on data visibility, process excellence, and rapid iteration.