Atlassian Data Analytics Project

This portfolio project demonstrates my ability to analyze real-world SaaS/DevOps data from Atlassian's Jira platform, showcasing skills in SQL, Python, data visualization, and deriving actionable insights.

by Julia Laskar

Project Overview

Data Analysis

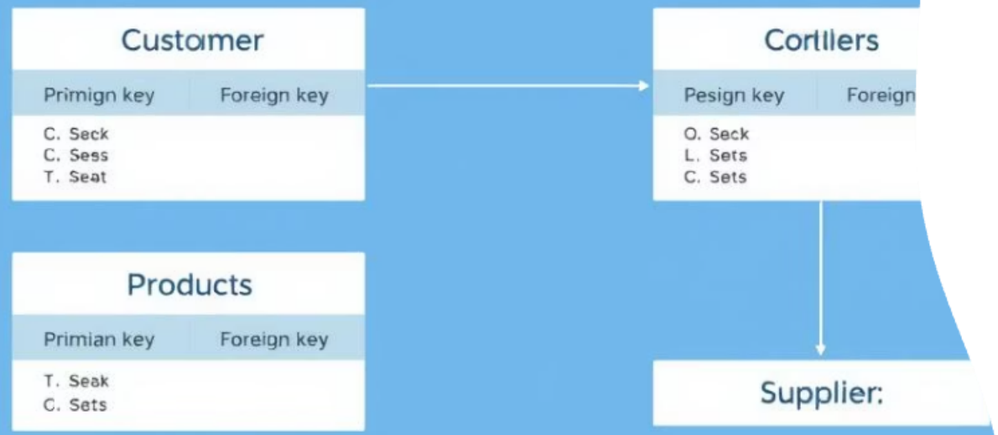
Comprehensive analysis of Jira sprint performance and developer productivity metrics.

Technical Skills

Showcases SQL, Python, and data visualization competencies.

Business Insights

Delivers actionable recommendations for agile process improvement.



Data Understanding & Preparation

jira_issues.csv

Contains issue details including type, priority, status, assignee, story points, and sprint information.

sprints.csv

Contains sprint metadata including name and dates.

developers.csv

Contains developer information including name, team, and join date.

Python Data Preparation

Load Datasets

Import CSV files using pandas for jira_issues, sprints, and developers.

Convert Dates

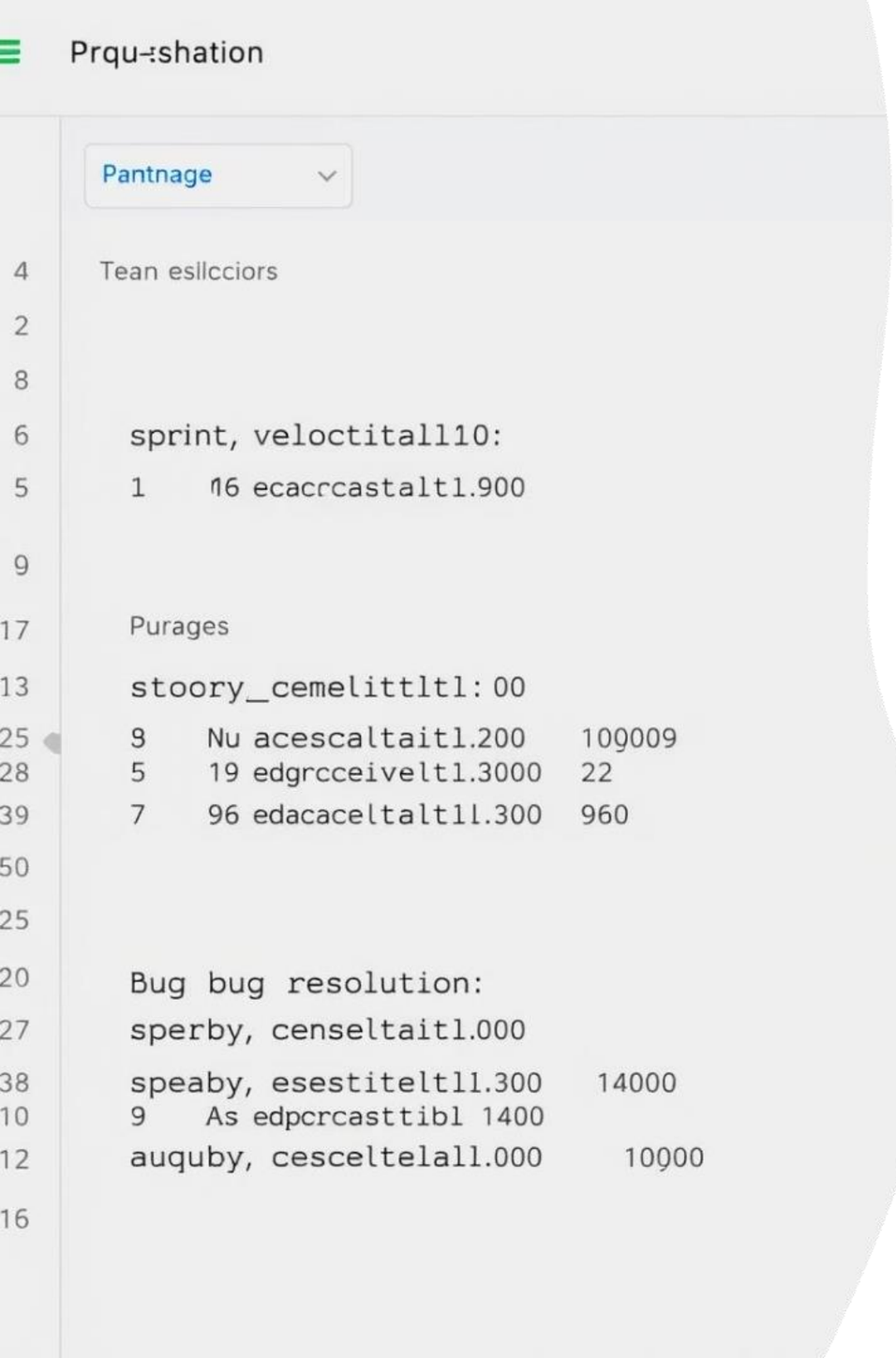
Transform string dates to datetime objects for proper analysis.

Calculate Metrics

Derive resolution time in hours from created and resolved dates.

Merge Data

Join datasets on appropriate keys for comprehensive analysis.



SQL Analysis

Sprint Completion Rate

Calculate percentage of completed issues per sprint.

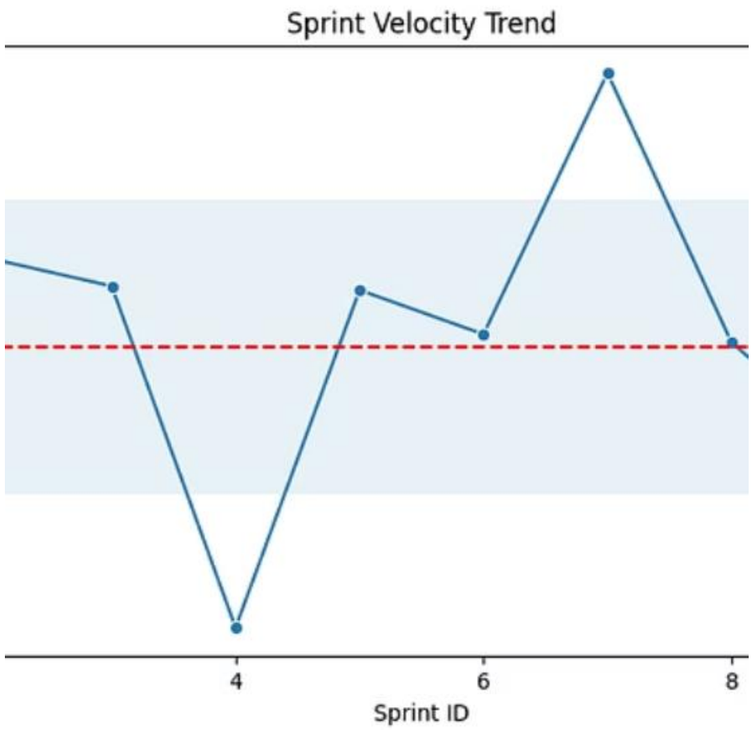
Developer Productivity

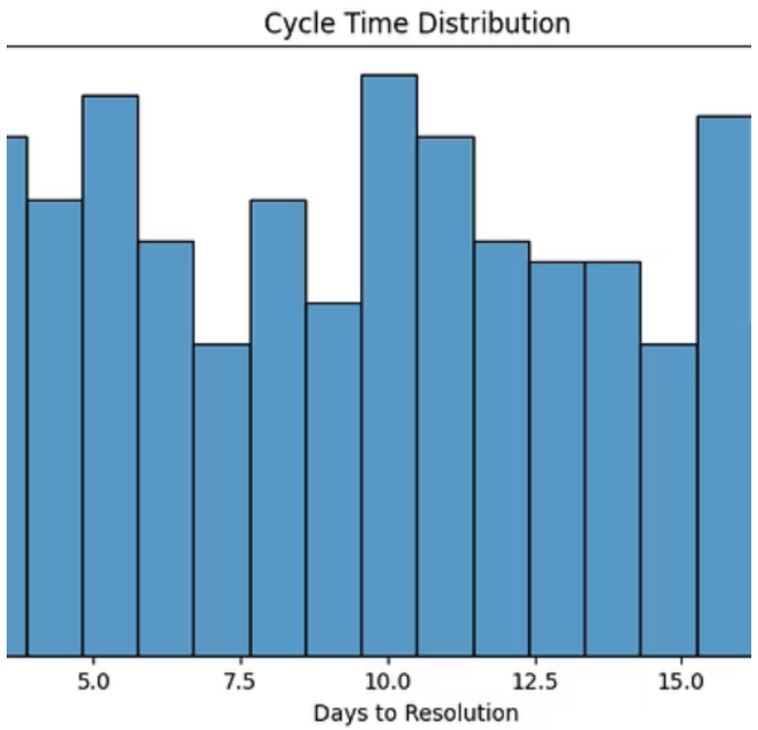
Analyze story points completed and resolution time by developer.

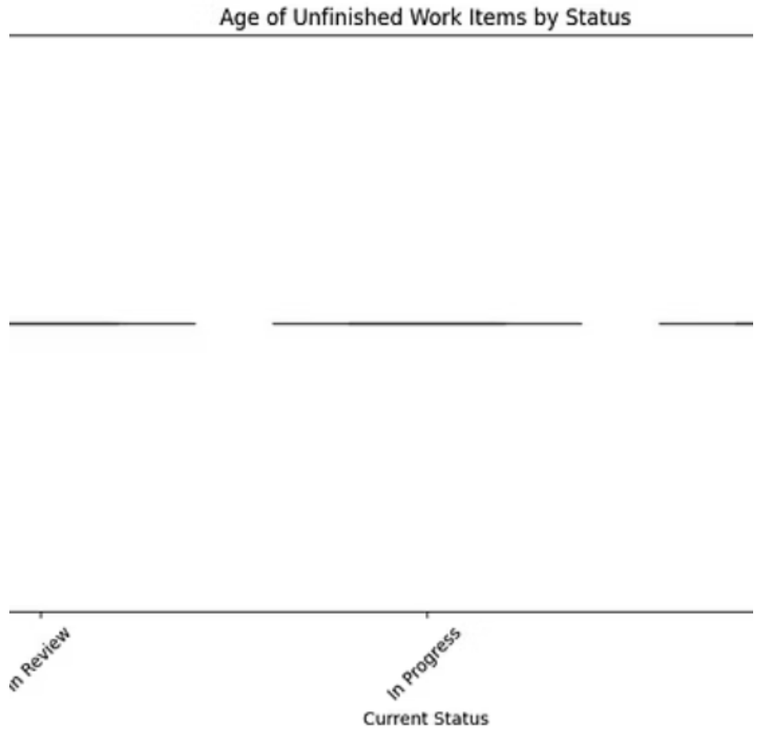
Issue Type Distribution

Examine breakdown of issues by type and priority.

Python Visualization







Key metrics visualized include sprint velocity, developer throughput, issue resolution time trends, and work distribution across teams.

Tableau Dashboard

Sprint Performance

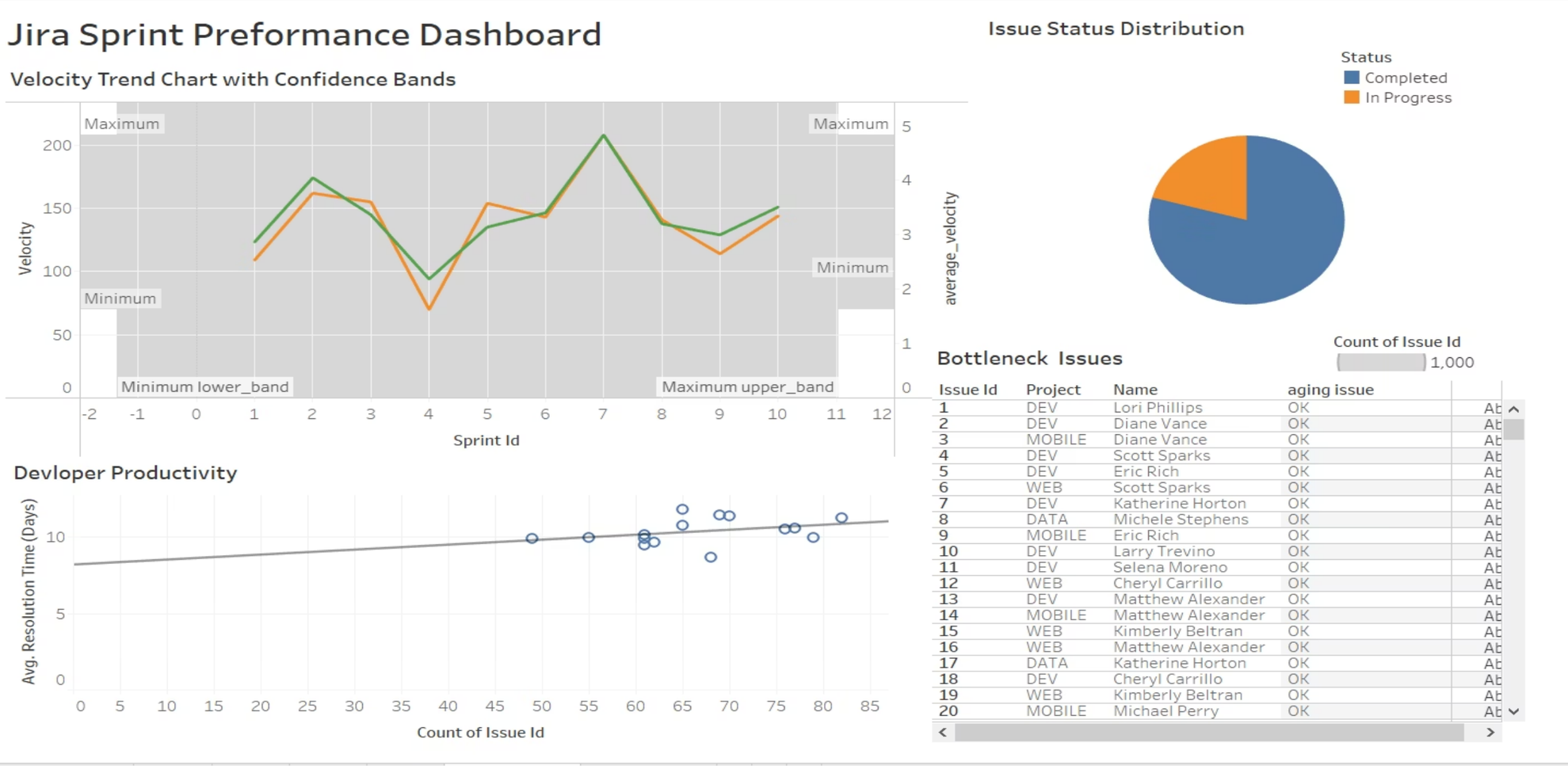
- Velocity trend across sprints
- Completion rate by sprint
- Burn-down chart for active sprint

Developer Productivity

- Story points by developer
- Average resolution time
- Team work distribution

Issue Analysis

- Issue type distribution
- Priority breakdown
- Resolution time trends



Key Findings

65-85%

Completion Rates

Sprint completion rates vary, with backend teams consistently higher.

40%

Faster Resolution

High-priority bugs resolved faster than medium-priority tasks.

25%

Lower Output

New developers have lower story point completion rates.

Recommendations

Sprint Scope Guidelines

For marketing teams to improve predictability

Mentorship Program

To onboard new developers more effectively

Root Cause Analysis

Apply high-priority resolution efficiency to other issues

Team-Specific Sprint Durations

Based on observed work patterns

Project Value

Agile Process Metrics

Quantitative metrics for process improvement

Performance Visibility

Clear view of sprint performance trends

Productivity Benchmarks

Developer performance standards

Data-Driven Insights

For resource allocation decisions