

PROJECT TITLE: IMPROVING GITHUB PROJECT MANAGEMENT FEATURES FOR CROSS-FUNCTIONAL TEAMS

PREPARED BY: GURWANT SINGH

INTERNSHIP PROGRAM: BUSINESS ANALYSIS (UPTRAIL)

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CONTEXT

Company: GitHub (Microsoft-owned platform)

Industry: Software Development, DevOps Tools

Current Focus: Version control, code collaboration, and basic project tracking

Industry Trend: Increasing adoption of Agile methodologies and cross-functional collaboration



PROBLEM OR OPPORTUNITY

- GitHub lacks advanced project management features required by modern teams.
- Teams often switch to Jira, Trello, or Azure DevOps for PM tasks.
- Tool-switching causes workflow disruptions, extra costs, and fragmented communication.
- **Opportunity:** Improve GitHub's PM tools to keep users in-platform and enhance productivity.

STAKEHOLDERS

- **Affected Users:**

- Software Developers (lose productivity)
- QA Teams (disconnected from project planning)
- Project/Product Managers (need visual, automated tools)
- Business Teams (lack transparency)

- **Beneficiaries of the Solution:**

- GitHub (user retention, market share)
- All cross-functional teams (streamlined collaboration)



ANALYSIS

- **How Did This Arise?** GitHub focused on code; PM tools didn't evolve with Agile needs.
- **Market Insight:**
 - Jira & Trello (Atlassian) have captured a major market due to powerful PM capabilities.
 - Agile adoption is growing rapidly across industries.
- **User Feedback:**
 - Frustration over GitHub's limited workflows, lack of reporting, no Gantt charts

Tools Compared:

Feature	GitHub	Jira	Trello	Azure DevOps
Timeline View	✗	✓	✗	✓
Automation Rules	✗	✓	✓	✓
Built-in Reporting	✗	✓	✗	✓
UX for PMs	✗	✓	✓	✗

PROPOSED SOLUTION

- **Enhance GitHub Projects With:**
 - Timeline View (Gantt-style planning)
 - Custom Workflows & Automation
 - Simplified Interface for non-technical roles
 - Built-in Reporting & Dashboards
- **Agile Approach:** Implement in Scrumban cycles for continuous delivery
- **Tools Used:** Trello (planning), Power BI (mock analytics), GitHub Projects (demo)

Agile Implementation: I used a Scrumban board in Trello to organize tasks in Backlog, To Do, Doing, and Done columns. This helped track progress, set priorities, and manage scope efficiently as a solo Business Analyst. I presented the Scrumban board in the following slide.



Backlog

- 🔥 Identify needs of non-technical team members (PMs, QA, Designers)
- 💡 Brainstorm enhancement ideas (timeline view, automation, UI)
- 🎨 Design UI mockup for improved GitHub timeline/dashboard
- 📊 Build Power BI dashboard visualizing project inefficiencies or feature gaps
- + Add a card

To Do (Sprint)

- 📈 Gather data on Agile & DevOps adoption trends in the industry
- + Add a card

In Progress

- 📄 Draft business case sections: Executive Summary, Problem Statement, Analysis, Solution Options, Cost-Benefit, Recommendation
- + Add a card

Review/QA

- 🔧 Create a mock data set for Power BI (e.g., GitHub usage trends)
- + Add a card

Done

- 🔍 Research limitations of GitHub project management tools (Projects, Issues, Milestones)
- 💬 Collect feedback and complaints from GitHub users (forums, reviews)
- 🌐 Compare GitHub's features with Jira, Trello, and Azure DevOps
- + Add a card

BENEFITS & RISKS

•Benefits:

- Reduced reliance on external tools
- Increased productivity for developers and PMs
- Better cross-functional alignment
- Competitive advantage in DevOps market

•Risks/Constraints:

- Could complicate GitHub's minimalist interface
- Development cost and resource allocation
- Integration complexity with existing GitHub systems

CONCLUSION

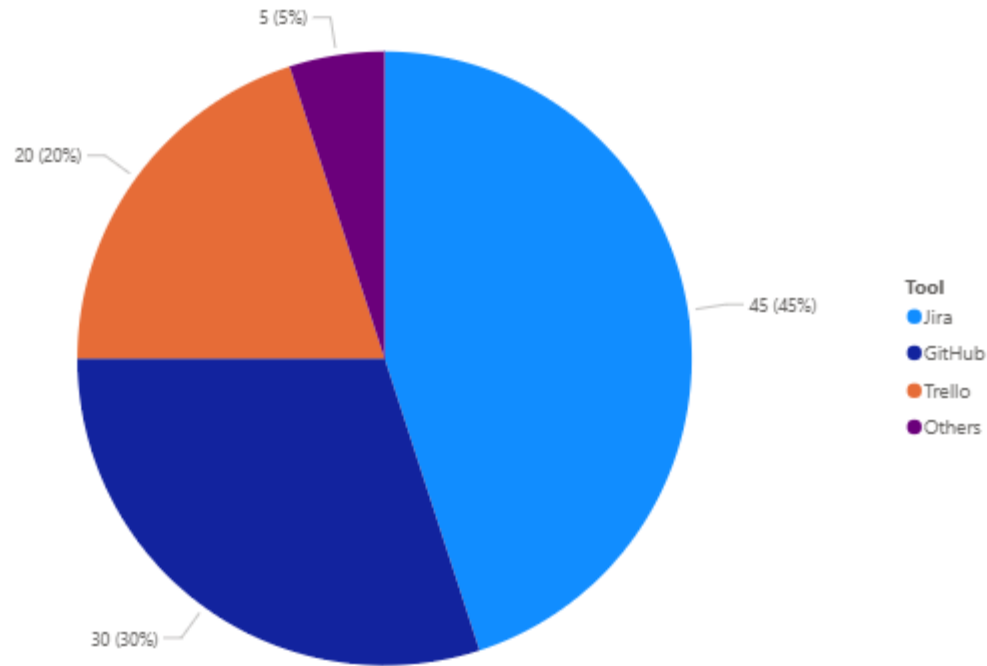
- GitHub's current PM tools do not meet evolving Agile and DevOps team needs.
- Enhancing project features will drive user retention, simplify collaboration, and strengthen GitHub's market position.
- With an Agile, user-centric approach, this proposal can be implemented effectively.
- **Recommendation:** Proceed with phased enhancement of GitHub Projects, starting with timeline view and reporting.



POWER BI DASHBOARD

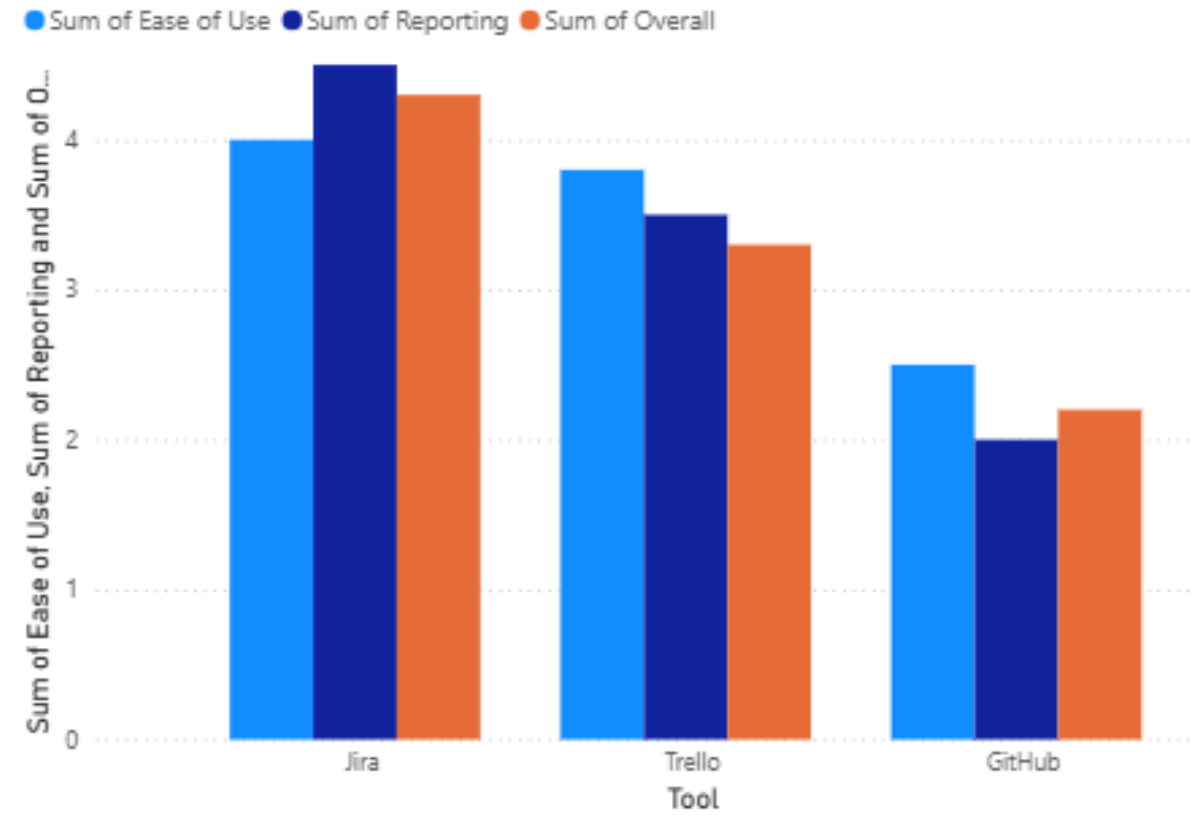
•**Tool Usage** – Market share of PM tools.

Sum of Usage (%) by Tool



•**Satisfaction Ratings** – User experience comparisons.

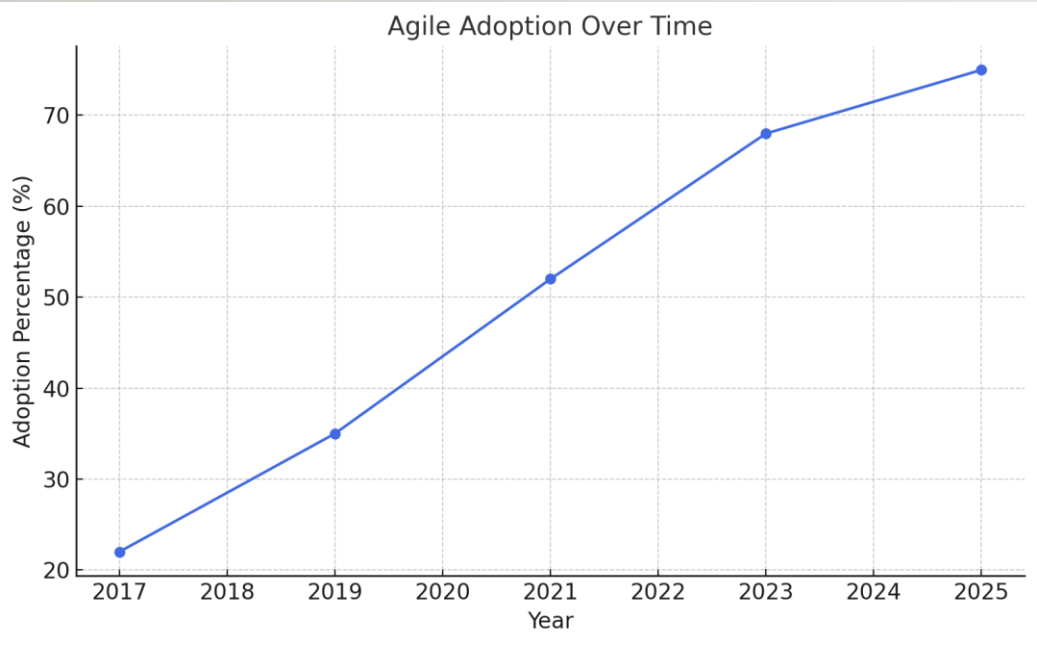
Sum of Ease of Use, Sum of Reporting and Sum of Overall by Tool



Feature Gap Analysis – Comparison of features across GitHub, Jira, and Trello.

Feature	GitHub	Jira	Trello
Reporting/Dashboards	✗	✓	⚠
Simplified UI for PMs	⚠	✓	✓
Timeline / Gantt View	✗	✓	✓
Workflow Automation	✗	✓	⚠

•Agile Adoption Trend – Industry trend over the years.



•User Feedback – Common themes from user complaints and suggestions.

