

Product Exercise

GitHub's goal

1. Appeal to enterprise customers
2. Customers with large / many engineering teams

Market Review

Target Customer¹

The following table provides a summarized comparison of the different types of businesses and how they compare to one another.

	SMB (Small & Medium-sized Businesses)	SME (Small & Medium Enterprises)	Enterprise
Employees	Small: 0-100 Medium: 100-999	101-500	> 1000
Annual Revenue	\$5 - \$10 million	\$10 million - \$1 billion	> \$1 billion
IT Staff	Typically 1 or a few	Small group to several employees	Full time IT staff; includes specialists
IT skills	Modest	Generalist. Lacks specialty skills	Wide variety of broad and specific skills
Location	Limited. May have more remote workers due to outsourcing.	Likely more than one location. More remote employees.	Several locations domestically and internationally
CapEx	Limited	Some	Large
Main considerations for technology purchases	1. Price 2. Ease of use 3. Pay-as-you-go	1. Capabilities 2. Functionality 3. Reporting	1. Reliability 2. Scalability 3. Security

¹ Sangoma. "SMB, SME/ "Mid-Market" and large enterprise... What's the difference, and why does your business size classification matter?" *Sangoma*, 2019
<https://www.sangoma.com/articles/smb-sme-large-enterprise-size-business-matters/> Accessed December 7, 2019

Why Enterprise Customers?

1. Growing market²
 - SaaS revenue accounts for ~20% of overall enterprise software market
2. Large capital expenditure

Enterprise Needs

In order to gain a deeper understanding on what appeals to enterprise customers, it would be helpful to study SaaS companies that have successfully appealed to enterprise customers.

A marketing study conducted in 2017 compared some of the highest earning SaaS companies to identify their marketing focus and emphasis.³

Companies	Annual Revenue (2018)	Year launched enterprise model	Emphasized features
Dropbox	\$1,391.7 M (+26% YoY)	2015	1. Security 2. Onboarding 3. Collaboration
Asana	\$ 100 M	2013	1. Control 2. Support 3. Security
Box	\$ 506 M (+27% YoY)	2005 (year founded)	1. Security 2. Compliance 3. Integrations
HubSpot	\$ 513 M (+37% YoY)	2006	1. Automation 2. ROI 3. Reporting

² Miller, Ron. "Enterprise SaaS revenue hits \$100B run rate, led by Microsoft and Salesforce" *techcrunch.com*, June 28, 2019 <https://techcrunch.com/2019/06/28/synergy-research-finds-enterprise-saas-revenue-hits-100b-run-rate-led-by-microsoft-salesforce/> Accessed December 7, 2019

³ Brandell, Benjamin. "Study: How 4 Highly Profitable SaaS Companies Market to Enterprises" *process.st*, October 11, 2017. <https://www.process.st/market-to-enterprises/> Accessed December 7, 2019

In general, the study observed the following to be a list of concerns that enterprise customers factor into purchasing decisions:

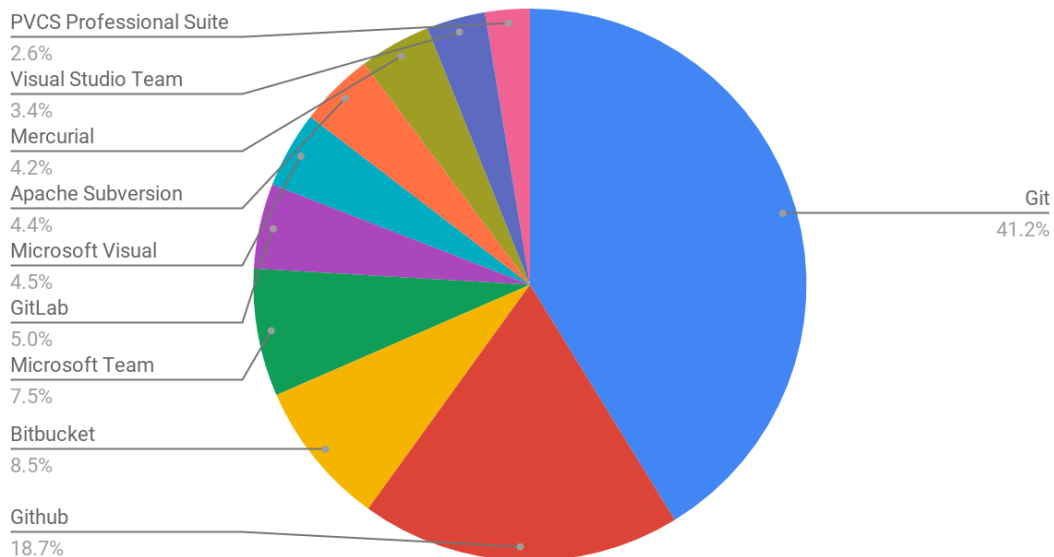
Security	<ul style="list-style-type: none">• Data protection• Comply with required regulations
Onboarding	<ul style="list-style-type: none">• How will current processes / operations be affected?
Social proof	<ul style="list-style-type: none">• Testimonies and case studies from other clients
Proof of ROI	<ul style="list-style-type: none">• Is the product helping manage cost and efficiency?
Automation	<ul style="list-style-type: none">• Will this product reduce the current workload or create more work?
Integrations	<ul style="list-style-type: none">• How will the product work with current systems?
Support	<ul style="list-style-type: none">• What happens in case of an emergency?
Complex access control	<ul style="list-style-type: none">• Control who sees what?• Can this product support complex organizational structures?

Product Review

According to Datanyze, the top competitors for GitHub by market share are BitBucket and GitLab⁴. Market share is calculated by the number of websites that are currently using the technology.

Ranking	Technology	Domains	Market Share
1	Git	22,564	37.91%
2	Github	10,245	17.21%
3	Bitbucket	4,662	7.83%
4	Microsoft Team Foundation Server (TFS)	4,091	6.87%
5	GitLab	2,724	4.58%
6	Microsoft Visual SourceSafe	2,455	4.12%
7	Apache Subversion	2,393	4.02%
8	Mercurial	2,289	3.85%
9	Visual Studio Team Services	1,882	3.16%
10	PVCS Professional Suite	1,426	2.40%

Top 10 Source Code Management Technologies



⁴ Datanyze. "GitHub market share" *Datanyze.com*, December 2019.
<https://www.datanyze.com/market-share/source-code-management/github-market-share> *

Industry benchmark

	GitHub Enterprise	Bitbucket	GitLab
Security	SOC2 Type II	SOC2 Type II	Not SOC2 compliant
Onboarding	Provides documentation for setting up and has service team that will be onsite for up to 3 days to help with onboarding	Customers are responsible for administering and upgrading their own implementations	Quickstart package includes 1 wk of Professional Services Engineer time
Social proof ⁵	Strong	Fair	Fair
Proof of ROI	N/A	N/A	N/A
Automation	CI/CD recently launched in November	CI/CD workflow available	CI/CD workflow available
Integrations	Introduced a project management suite for tracking issues and projects in one location. Has a marketplace but not as robust as Atlassian's Marketplace.	Comes as part of the Atlassian suite. Has Marketplace for add-ons and custom apps	N/A
Support	24/7 phone support	Varies depending on package bought ⁶	Varies depending on tier ⁷
Complex access control	Levels ⁸ : <ul style="list-style-type: none"> • Owners • Members • Billing managers 	Levels ⁹ : <ul style="list-style-type: none"> • Global • Project • Repository • Branch 	Project level ¹⁰ : <ul style="list-style-type: none"> • Owner • Maintainer • Developer • Reporter • Guest

⁵ Since brand measurement isn't available, this factor was evaluated using Google Trends to identify the popularity of the brands. The charts can be found [here](#). This is not a conclusive chart for determining social proof.

⁶ Atlassian Enterprise Support Services, <https://www.atlassian.com/enterprise/support-services#compare-offerings>

⁷ GitLab Support, <https://about.gitlab.com/support/>

⁸ GitHub Permission Levels for Organization, <https://help.github.com/en/github/setting-up-and-managing-organizations-and-teams/permission-levels-for-an-organization>

⁹ Levels of Bitbucket server permissions, <https://confluence.atlassian.com/bitbucketserverkb/4-levels-of-bitbucket-server-permissions-779171636.html>

¹⁰ GitLab permissions, <https://docs.gitlab.com/ee/user/permissions.html>

GitHub user feedback

Pros	Cons
Social coding (eg. activity feeds, user profiles, favorites)	Costly
Built by GitHub - widely used and familiar interface	Historically focused on developers more than enterprise teams
Serves as a generally accepted resume for developers - new feature allows developers to display work as part of their public profiles ¹¹	Wiki and issue tracking tool are fairly basic compared to Atlassian's JIRA and Confluence
	Marketplace and custom add-on isn't as built out as Atlassian's
	Permissions granularity not as refined and controlled vs Bitbucket's branch level permissions
	Built-in Continuous Integration / Delivery is fairly new

SWOT Analysis

Strength <ul style="list-style-type: none">• Strong brand trustworthiness• Security• Support	Weaknesses <ul style="list-style-type: none">• Marketplace integrations and custom add-ons• General issue tracking and project management tools
Opportunities <ul style="list-style-type: none">• Automation• Access controls for complex organizations• Enterprise team oriented product	Threats <ul style="list-style-type: none">• Pricing

¹¹ Lardinois, Frederic. "GitHub launches Actions, its workflow automation tool" *techcrunch.com*, October 16, 2018. <https://techcrunch.com/2018/10/16/github-launches-actions-its-workflow-automation-tool/>
Accessed December 7, 2019

Proposed New Feature

By improving areas that are crucial to enterprise clients, GitHub can be in a solid position to market to enterprise clients. However, they will then be meeting the expectations of enterprise clients. In order to stand out from the competition, GitHub can focus on available opportunities in the market.

One common view about GitHub is that the company has not been focused on enterprise teams and even with GitHub Enterprise, isn't built with professional teams in mind.

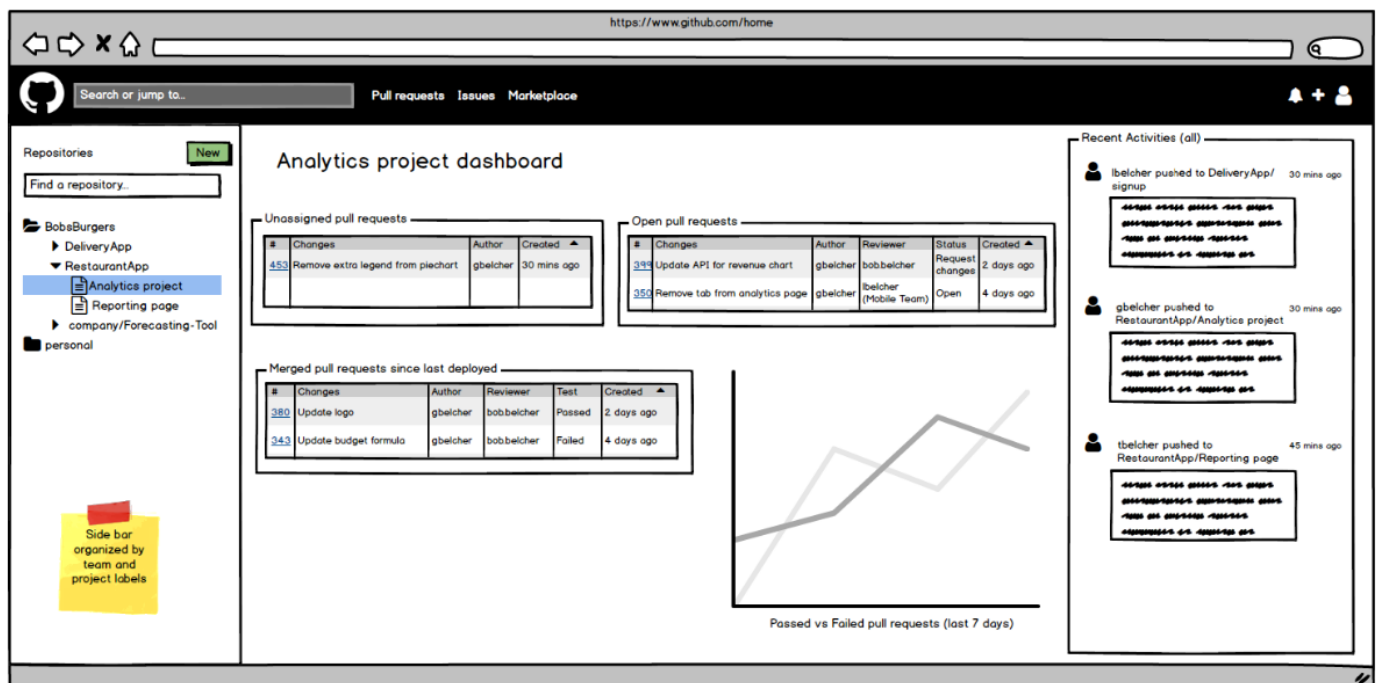
A proposed feature is to build a Project Dashboard.

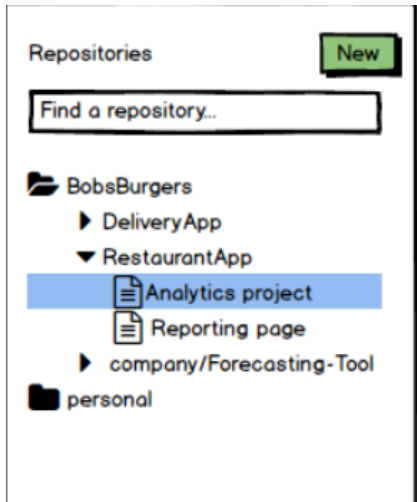
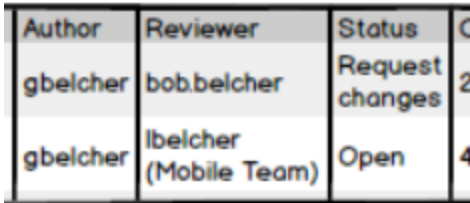
Assumptions

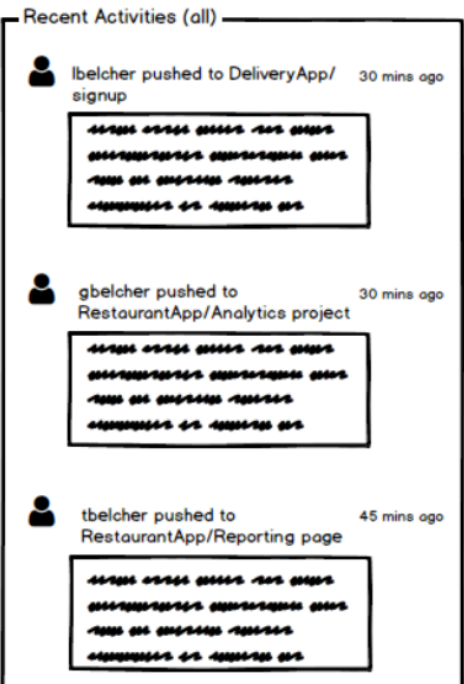
- GitHub Enterprise currently doesn't have a team related dashboard
- GitHub Enterprise doesn't provide enough transparency for team members on the same project
- Microsoft Azure currently doesn't have a team related dashboard
- Labels are effectively implemented
- Issue tracker / JIRA integration doesn't exist yet

Project Dashboard

Specs and wireframe



Components	Specifications	Screenshot												
Sidebar	<ul style="list-style-type: none">• Separate folders for personal vs company repos• Projects within repository are identified by labels on pull requests• Hierarchy:<ul style="list-style-type: none">○ Company<ul style="list-style-type: none">■ Repository 1<ul style="list-style-type: none">• Project label■ Repository 2○ Personal													
Dashboard	<p>Identifies the following:</p> <ul style="list-style-type: none">• Unassigned pull requests<ul style="list-style-type: none">○ PR #○ Changes made○ Author○ Created• Open pull requests<ul style="list-style-type: none">○ PR #○ Changes made○ Author○ Reviewer (identifies if reviewer is from a different team)○ Status○ Created• Merged pull requests since last deployment<ul style="list-style-type: none">○ PR #○ Changes made○ Author○ Reviewer○ Test○ Created• Chart<ul style="list-style-type: none">○ Line 1: Merged PR that passed test○ Line 2: Merged PR that failed test○ Time period: Rolling 7 days	 <table><tr><th>Author</th><th>Reviewer</th><th>Status</th><th></th></tr><tr><td>gbelcher</td><td>bob.belcher</td><td>Request changes</td><td>2</td></tr><tr><td>gbelcher</td><td>lbelcher (Mobile Team)</td><td>Open</td><td>4</td></tr></table>	Author	Reviewer	Status		gbelcher	bob.belcher	Request changes	2	gbelcher	lbelcher (Mobile Team)	Open	4
Author	Reviewer	Status												
gbelcher	bob.belcher	Request changes	2											
gbelcher	lbelcher (Mobile Team)	Open	4											

Activity feed	Shows changes made to repositories and projects that user has access to	 <p>The screenshot displays a section titled "Recent Activities (all)". It lists three recent pushes:</p> <ul style="list-style-type: none"> lbelcher pushed to DeliveryApp/signup (30 mins ago): Includes a commit hash and a diff view showing changes to <code>src/main/java/com/example/deliveryapp/signup/SignupActivity.kt</code>. gbelcher pushed to RestaurantApp/Analytics project (30 mins ago): Includes a commit hash and a diff view showing changes to <code>src/main/java/com/example/restaurantapp/analytics/AnalyticsActivity.kt</code>. tbelcher pushed to RestaurantApp/Reporting page (45 mins ago): Includes a commit hash and a diff view showing changes to <code>src/main/java/com/example/restaurantapp/reporting/ReportingActivity.kt</code>.
---------------	---	--

Potential benefits

- Transparency on projects for teams:
 - Team leads - 1:1s can be used to focus on employee growth and development instead of as a status update
 - Technical product managers / Project managers - Easily identify if tasks are completed and deployed for projects
- Increases awareness of teammates' works
- Provides project managers with a tool to identify which teams to follow up with
- Can be improved to show dependencies between different teams - eg: Blocked vs unblocked