# Requirements Analysis for Contributor Quality
# Group 1

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Problem: While not necessarily a problem, one metric we thought we could add that could fit under the community growth section is a contributor quality metric. While the current community growth section has metrics for new users, inactive users, and new contributors cloning issues, we thought another indicator of a project's health could be the sort of user that is contributing. This metric would see other projects the users had contributed too, issues they had cloned and solved, and the overall activity and contribution a user has made across the entire GitHub platform. Comparing this data will allow the metric to determine whether the contributor is of 'quality'.

Users: The contributing user, the open source project, and augurs collectors themselves.

Contributing user - The user in which the collector pulls the data, must have a GitHub account active and other data to pull from.

Open Source Project - Where the contributing users will be pulled from.

Augur collector - The worker of the metric.

Activities:

Pulling other projects user is contributing too:
Associated Data:

- Collection of other repositories contributed to.
- Current state of contribution in said repositories.

Description:

This part of the metric will check if the contributor has contributed to other active repositories or has created their own. If the health of those repositories has been evaluated it will check that, and how actively they are contributing to those.

Issues that have been cloned and solved:
Associated Data:

- Collection of other repositories contributed to and issues cloned and solved.

Description:

This will be a following step to pulling other contributing repositories. This will be more specific, checking actual issues that have been cloned by the user, and solved.

Requirements:

- Access to GitHub Api
- Deployed augur instance
- Algorithm that determines if a user is of ‘quality’ through various checks.

# Use Case

## Title: Contributor Quality Metric

## Background:

With many projects having a significant amount of contributors, it's important to understand how likely these contributors are to fix current issues and contribute actively to the development of the software. Working with Augur's other metrics, this would be another important way to gauge software health.

## Description:

From the GitHub repository, evaluate each contributor based on their activity in other repositories and active issues pulled and solved.

## Triggers:

1. A user wants to know the quality of the contributors to an open-source project.
2. A manager seeks to know how active his contributors are on the repository.

## Actors:

- Admin
- User having their quality tested
- Other contributors

## Preconditions:

1. The contributing user must have made contributions to at least one open source project.
2. The contributing user must have an active and running GitHub account.
3. There has to be at least one open source project to pull the data from.
4. A collector from Augur has to pull the data from the GitHub user they want the metrics on.

## Main Success Scenario:

1. All users are evaluated and data on quality is presented as a metric.

## Alternate Success Scenario:

1. N/A

## Failed End Connection:

1. The Augur collector is unable to obtain the metrics from the contributing GitHub user they are interested in.
2. The metrics are presented incorrectly.

## Extensions:

1. Compare users with different repositories.

## Steps of Execution

1. User submits a Url to a GitHub repository
2. Data is pulled from GitHub apis about contributors activity throughout the site.

## Dependent Use Cases

1. N/A

## Use Case Diagram