Curve - Developer Challenge

Please create REST API with one endpoint which will find the shortest contribution path between two GitHub users.

The path is defined as the number of hops between contributors via their contribution to a package. For example Seldaek and Stof both contributed to the monolog/monolog package (hosted in GitHub under Seldaek/monolog) so the shortest distance between them is one and goes through the monolog package.

Given we have three users (user1, user2 and user3) and two repositories (repository1, repository2). If user1 contributes to repository1. User2 contributed to repository1 and repository2. Then if user3 will contribute to repository2, the shortest path between user1 and user3 will equal 2 and it will go through repository1 and repository2.

To simplify the task you may :
- skip connecting to Github API and use mock data
- use database abstractions packages (e.g doctrine) and other third party packages/frameworks but please make sure there's enough of your own work here that we would be able to evaluate you on.

The emphasis in this task should be on good software design (e.g use of appropriate design patterns, SOLID etc) and software engineering best practices (please include tests). Your solution should contain an algorithm which can calculate a distance of any path length. **We're looking for the most effective algorithm.**

This task is anticipated to take between 2-3 hours.

Ideally build it in one of the mainstream languages like PHP, GO, Java, Scala, C#. If your preference is another language please check with us first.

Please upload the answer to Github and send the link to cynthia@imaginecurve.com

Good Luck!!