OpenReq Automatic GitHub Issue Labeller

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About us

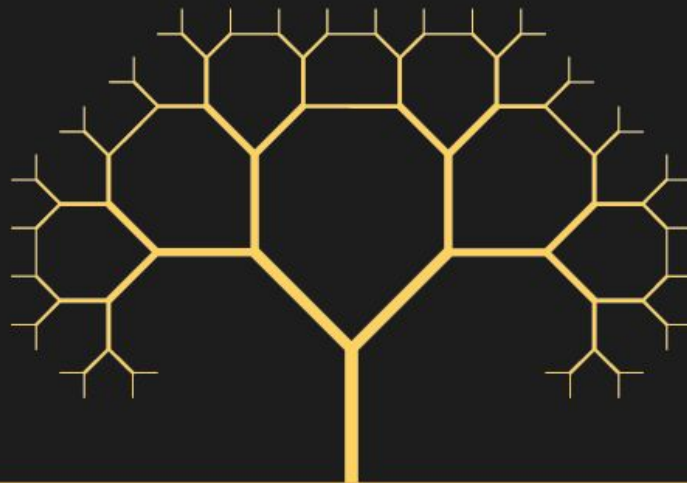|	
	Software development
	Agile & Scrum
	R&D and Academic collaboration

ApuliaSoft
DIGITAL ROOTS

Project Objectives

Help large software project stakeholders organizing requirements automatically assigning **labels** to them

Integrate OpenReq's **requirements classifier** into **GitHub issue tracking** system

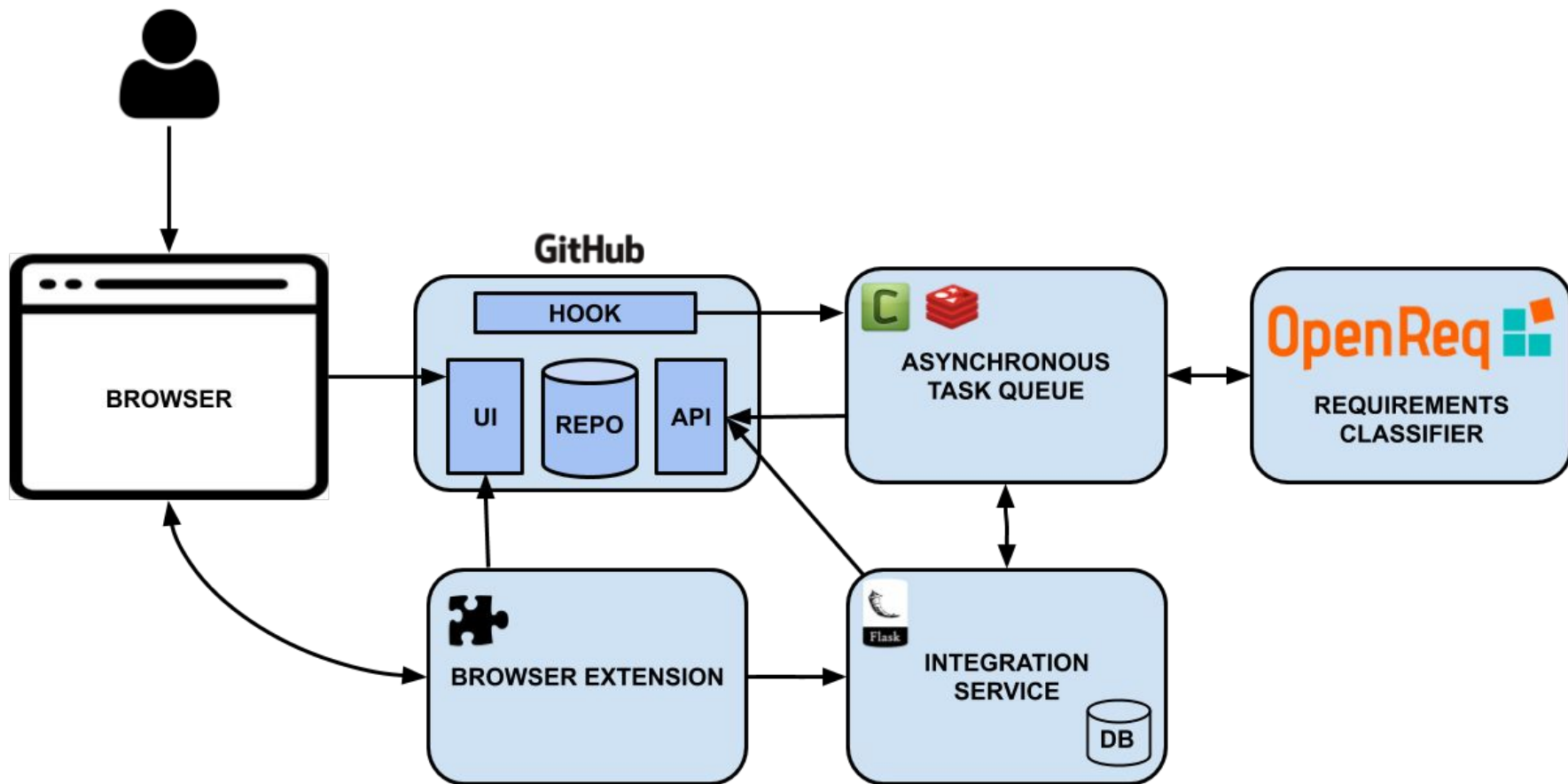Build a **Chrome Browser Extension** to enrich GitHub interface

OpenReq Requirements Classifier

TRAIN

Train a model from already labelled requirements

CLASSIFY

Assign single labels to a set of requirements based on a previously created model

GitHub

BROWSER

HOOK

UI   REPO   API

ASYNCHRONOUS
TASK QUEUE

OpenReq
REQUIREMENTS
CLASSIFIER

BROWSER EXTENSION

Flask
INTEGRATION
SERVICE

DB

Demo Time

http://bit.ly/github-labeller

Evaluation

QUALITATIVE

Survey supplied in developers' community along with a video demonstration

QUANTITATIVE

Precision Analysis on existing repositories on Github
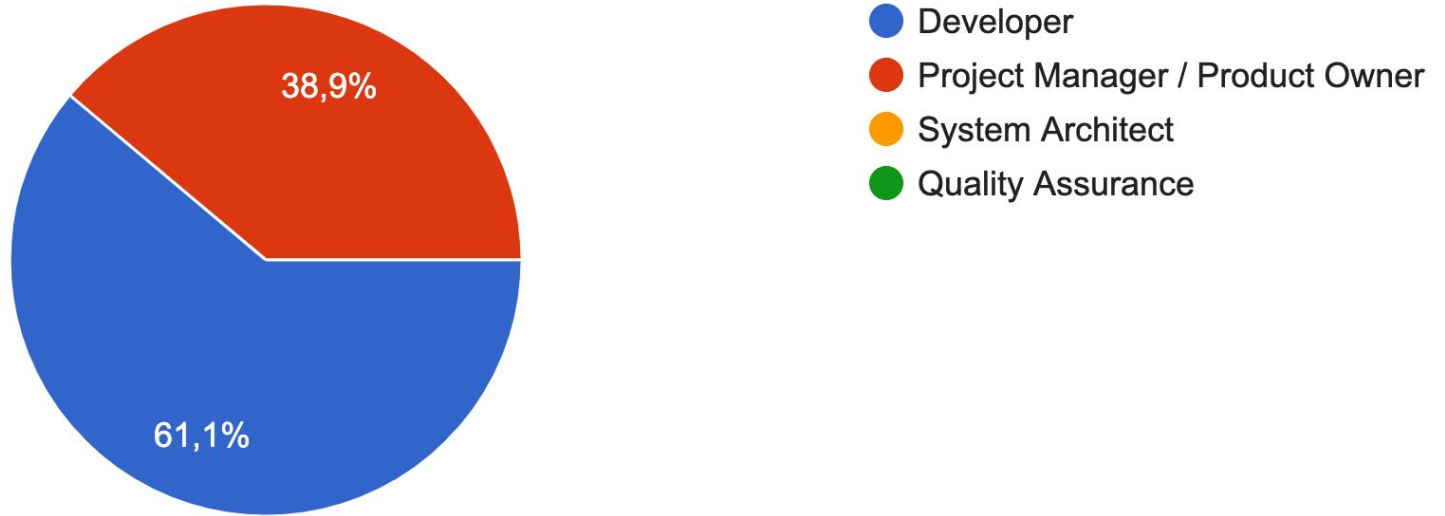
Survey Objectives

Assess usefulness of requirements categorization

Assess usefulness of automatic categorization
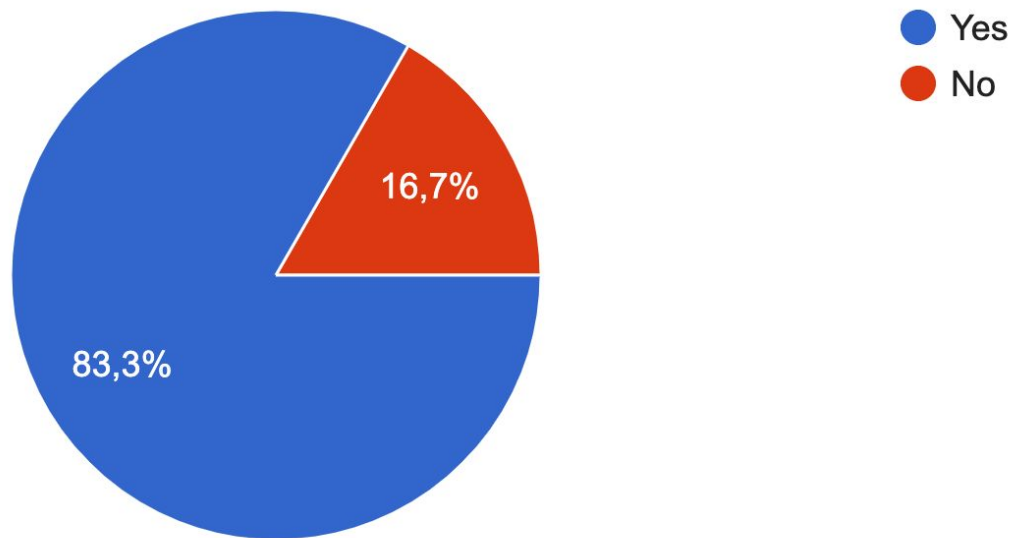
Assess usefulness of the proposed tool

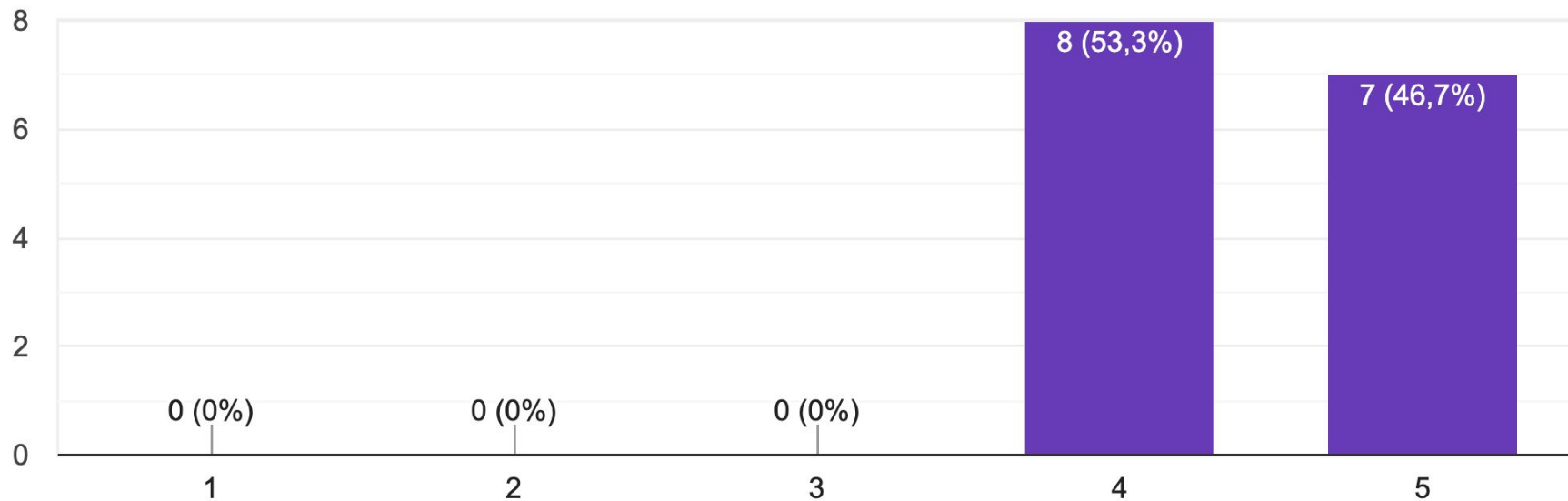# What is your main role in developing Software Projects?

18 risposte

- Developer
- Project Manager / Product Owner
- System Architect
- Quality Assurance

61,1%

38,9%

Do you use any issue tracking tool?
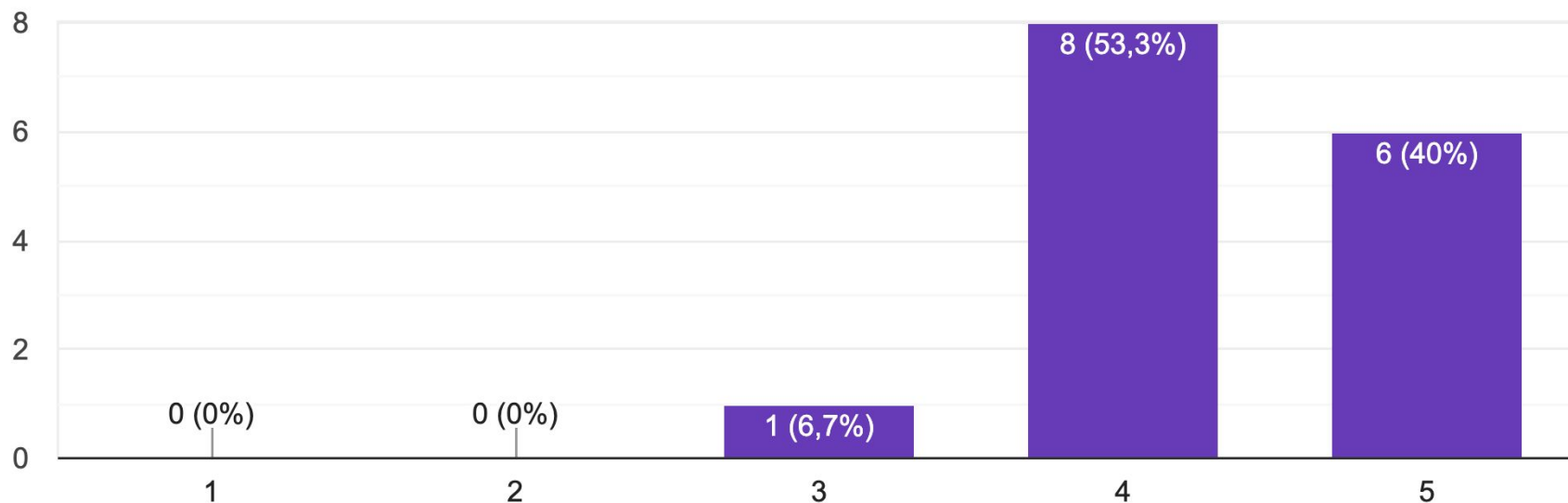
18 risposte

How useful do you think it is categorizing or labelling issues?
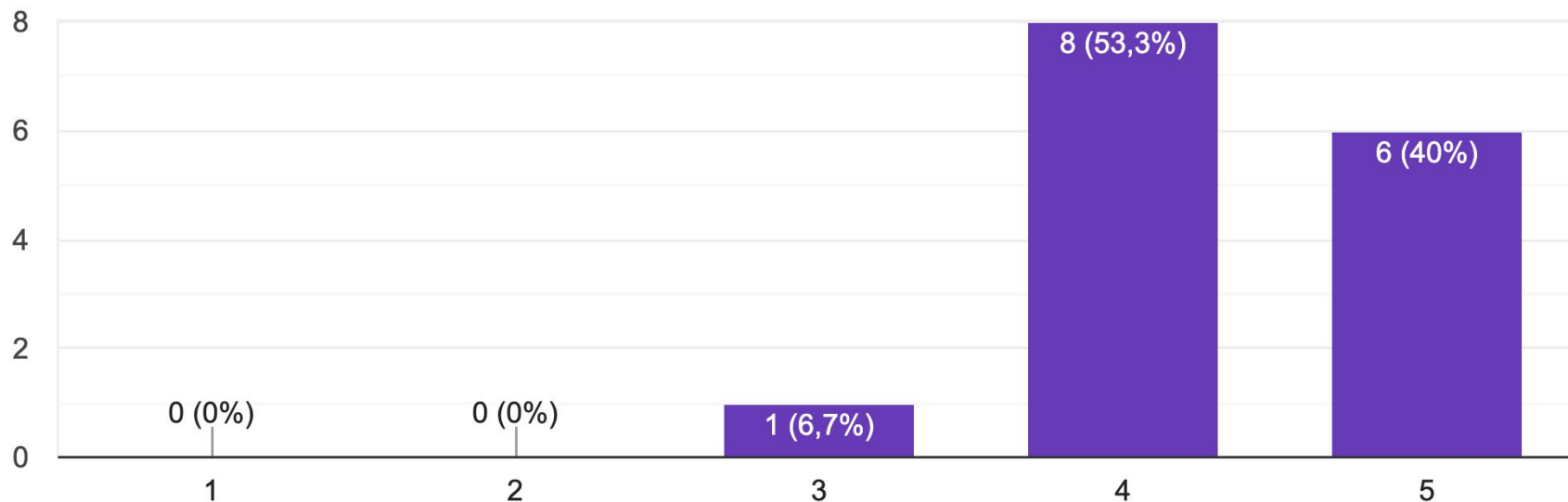
15 risposte

How useful do you think it is automatic categorization or labelling of issues?

15 risposte

How useful do you think a tool like the one showed in the demo would be, if integrated in issue tracking systems?

15 risposte

Precision Evaluation

100

GitHub repositories

70%

Training set (issues with label)

30%

Classification set (issues with label)

25.68%

Average precision

14.03%

Precision Standard Deviation

Precision

$$\frac{\textit{Total correctly labelled issues}}{\textit{Total classified issues}}$$

Future work

MULTI-LABEL CLASSIFICATION

OTHER BROWSERS EXTENSIONS

INTEGRATION WITH OTHER ISSUE TRACKERS

Thank you

Contacts

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