

Modeling the Domain of Software Development to Represent Skills of Programmers

MOTIVATION

- . gather IT skills of coders
- . compare, search, recommend
- . deduce further skills
- . utilize the links

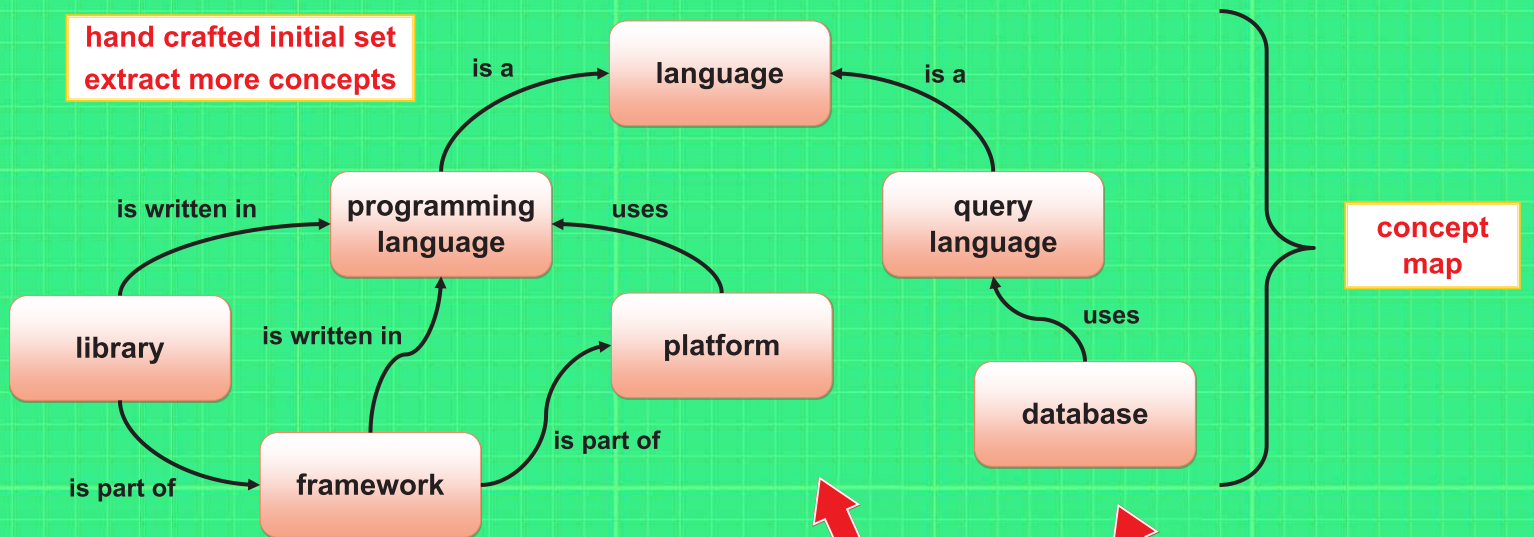
GOALS

- . automatically
- . create software development concept map
- . populate it with technologies

Wikipedia - source of data

- . select an article
- . known technologies: use Google + "software development"
- . all technologies: process all articles
- . find occurrence of a concept in text
- . transform verbs into relationships
- . create concept instance
- . link it to the map

hand crafted initial set
extract more concepts



concept map

get more skills by
generating questions
"do you also know...?"

instances

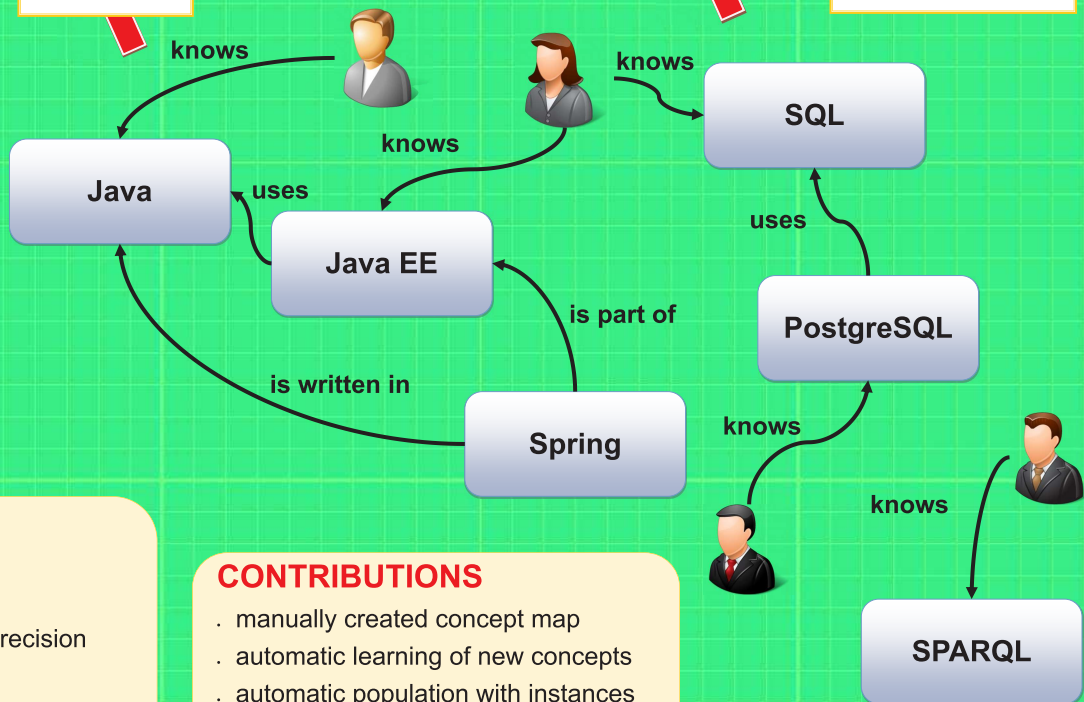
search for people

link

link

link

deduce skills



EXPERIMENTS

- . technologies categorization
- . *is a* link technology - concept
- . 5 people, 60 technologies, 92 % precision
- . find appropriate Wikipedia article
- . 40 technologies, 77.5 % precision

CONTRIBUTIONS

- . manually created concept map
- . automatic learning of new concepts
- . automatic population with instances
- . usable as a domain model