Hackathon@SATToSE2014:
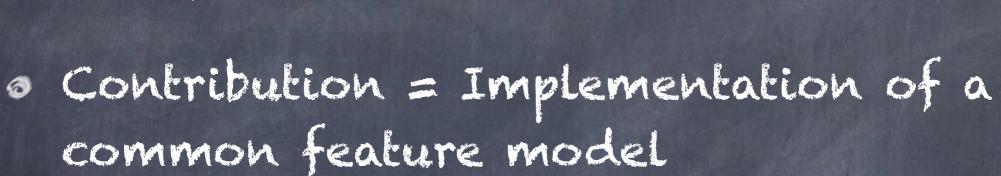## 101companies
for
StackOverflow

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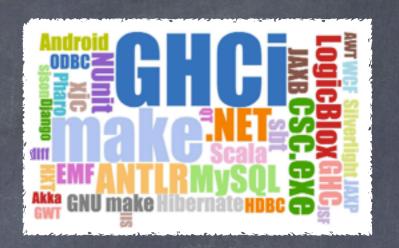
StackOverflow

- Huge set of discussions related to Software Engineering

- Metadata reveals discussed languages, technologies, and concepts

- Highly discussed combinations call for easy, illustrative, and documented examples

101companies to the rescue!

- Set of contributions

- Contribution = Implementation of a common feature model

- Contributions document:

  - used <u>languages</u> and <u>technologies</u>

  - demonstrated <u>concepts</u>

Contributions

- Example:

this	*uses*	Language:Haskell
this	*uses*	Technology:Cabal
this	*uses*	Technology:GHC
this	*uses*	Technology:HUnit
this	*uses*	Writer monad

- Contribution as combinations of languages, technologies, concepts

Idea

- Auto-generate contribution proposals = unseen combinations of languages, technologies, concepts

Results

languages	technologies	concepts
java, xml	android, eclipse	
java, xml	android, eclipse	
java, xml	android	layout
java, xml	android	parsing
java, json	android, gson	
java, json, php	android	
java, json	android	parsing
java, json	android, mysql	
java	android, sqlite	database
java, sql	android, sqlite	

...

languages	technologies	concepts
java	android, sqlite, eclipse	
java, xml	android, eclipse	
xml, java	android, eclipse	
xml	android, eclipse	layout
javascript, html, css	jquery	

Ups...

javascript, php, html, css

php, html, javascript

mysql

java, xml

android, eclipse

- Many of the configurations are actually implemented, just not fully documented

New idea!

- Help documenters to do a proper job

- Association Rule Mining:

  - <u>General:</u> Given a set of things, what is commonly added?

  - <u>101:</u> Given languages, technologies, concepts, what might be missing?

Go!

101companies Project + =

Data:

http://api.stackexchange.com

http://101companies.org/resources/contributions/