Graph visualization of KTH course dependencies

About Findwise

Findwise is a growing IT consultancy company, founded in 2005 by a team of experts from the enterprise search industry. The company currently employs about 100 people spread over our offices in Stockholm, Gothenburg, Copenhagen and Warsaw.

We aim to add business value for organizations where information is a priority by helping them to access, manage and act on information. Findability by Findwise is all about creating search solutions that maximize business value gained from search technology investments. We create search solutions for intranets, web, e-commerce and applications and make sure these are implemented to support and strengthen your business processes and help organizations reach their business goals.

Findwise is fully customer-oriented. At the same time, our ambition is to be the best workplace in the industry, capable of attracting and retaining the best talents.

The main objective of the project below is to be fun, but we may also use it as a demo of what our customers could do with their data, instead of just making it searchable. For this reason, we are also interested in a copy of the source code (i.e. you still own the code but we are allowed to use it as well).

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Tags

Dependency graph, visualization, KTH course pages, data structures

Project description

At KTH most students have the possibility to select some of the courses they want to have in their program. But it is difficult to get an overview of how different courses depend on each other.

The only way to get information about how courses depend on each other is to navigate the KTH website and manually look up course dependencies in a text field. The lack of a good overview causes difficulties for both students and student counsellors.

The aim of this project is to build a graph visualization of course dependencies, where it is possible to search for a course code and get a graph that show the course and all its dependencies.

Project overview:

- Create a simple crawler for crawling KTH course pages.
- Extract the course dependency field
- Specify a data-structure to represent different types of course dependencies.

- Parse the text in the course dependency field and translate it to a matching data structure.
- Save the course dependencies in a database or a search engine
- Query your database or search engine for courses and their dependencies.
- Create a visualization for the graph