

CS 411W

Crystal Group - SoftWhere

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1. Introduction

- If you have a goal, and are looking for a piece of software to accomplish it, it can be difficult to find something that fits your needs, especially if you have specific needs. Search results are full of AI-generated top 10 lists, and old forum posts are often outdated. “SoftWhere” aims to fix that!
- Search a large list of software solutions, filter your searches to narrow the search down, see user feedback about software! This will make finding the software you want so much easier!
- Search engines do not always provide good results
- Users may find it challenging to assess the quality of sources of information about software
- Users may not be aware of all of the options available
- Users may not be able to effectively conduct software searches
- A general user may search “best pdf reader” when looking for a free pdf reader
- This search resulted in “Best Free PDF Readers of 2024” (Clark)
- This page suggests largely free-trial software, which may not be what the user wants
- This page does not seem to be a reliable source of information, and may be AI-generated
- A more technical user may be more specific, such as searching for “concatenate pdfs cli”
- This search resulted in a StackOverflow post from 2011 (StackOverflow)
- The information on this page may be outdated, as some software may no longer be maintained, the interface may have changed, or a newer solution may outperform them all
- Further research would be needed on each software recommended

- Irrelevant search results, such as technical support for other software, or information about a particular relevant technology rather than software solutions

2. SoftWhere Product Description

- We will be developing a web application that will provide end users a powerful search engine for software
- Users will have the capability to filter software based on specific categories or tags
- Duplicate search results will be limited
- End users will be able to like, dislike, and leave comments about specific search results
- Search results will be shown in order of most liked to least liked

2.1 Key Product Features and Capabilities

- Powerful keyword search over software descriptions
- Tag-based filtering of results
- Results ordered by search relevance and by user ratings
- User comments on each result
- SoftWhere aims to be an effective tool for general computer users and advanced users alike
- A simple search will provide more relevant results than a generic search
- Advanced search options, such as tags, will allow advanced users to search for precisely what they are looking for Software curation will be completed manually for the prototype
- What it will do:

- Keyword Search
- Powerful tag-based filtering
- Display like and dislike counts
- Display user comments
- Allow users to generate their own pages
- What it will not do:
 - Provide direct means of installation
 - Provide bug tracking or user support
 - Provide unsolicited recommendations of software
 - Search by competitor

Feature	<u>SoftWhere</u>	AlternativeTo.net	GitHub.com	Search Engines (Google, Bing, etc.)	App Stores (iOS, Google Play, etc.)
Display user comments	✓	✓	✓		✓
Display likes and dislikes separately	✓	✓	✓		✓
Search by competitor		✓			
Search by use case	✓			✓	✓
Search by programming language	✓		✓	✓	
Search by keyword query	✓	✓	✓	✓	✓
Filter search by user-defined tags	✓				

Figure 1 - Competition Matrix

2.2 Major Components

- There will be an Apache web server hosting the service
- There will be a Django backend

- There will be a React frontend combined with HTML5
- There will be a MySQL database
- There will be Python3 code that handles a lot of the backend logic and SQL queries
- There will be an admin section of the web app for maintainers to maintain things

3. Identification of Case Study

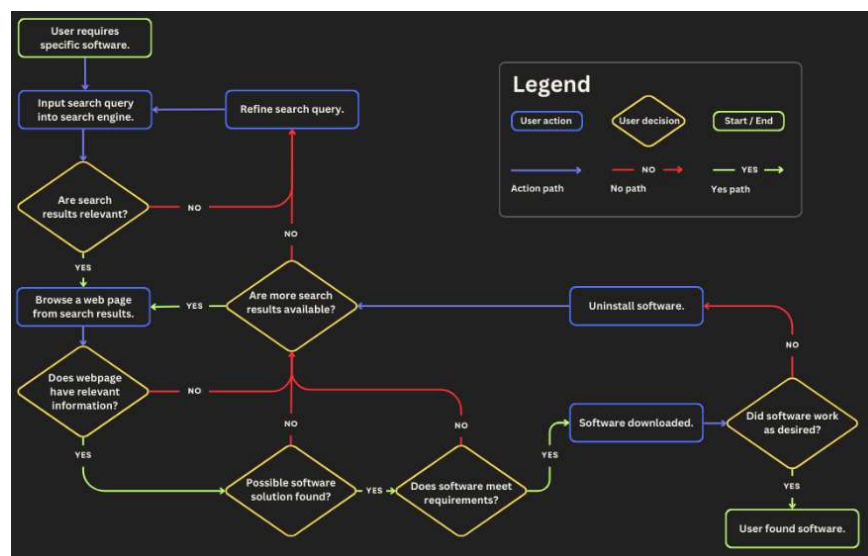


Figure 2 - Current Process Flow

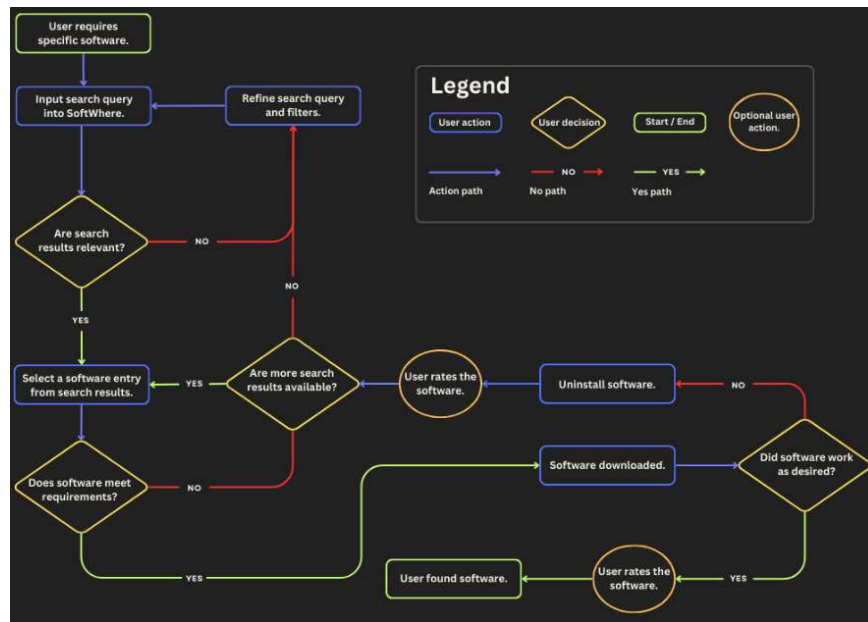


Figure 3 - Solution Process Flow

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4. Glossary

- Apache – A popular web server software.
- Django – A framework for building the back-end of web applications with Python.
- React – A framework for building the front-end of web applications.
- MySQL – A popular database software.

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