Extracting Code Snippets From Online Sources
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Release 2 Documentation(Revised)

- ## Work Planned for Release 2

  - Add option to search queries in natural language.
  - Give option to cycle through the available code one by one.
  - Improve UI of the plugin.

- ## Work done for Release 2

  - Modified the eclipse plugin to handle natural language queries.
  - Used another open source project- nlp2code and integrated it with FaCoy.
  - Gave user options to cycle through available code based on his preference.
  - Improved the UI.
  - Given shortcuts to provoke extension quickly.
  - Added buttons in menu bar to provoke the extension quickly additionally to giving user to search for similar code in Java by adding (?) at the end of his natural language query.

- ## Work planned for next Release

  - For next release we have decided to work with evaluation metrics of the code snippet which will help the developer to find his required snippet much easier way and which suits his preference and give more relevant code filtered by our new evaluation metrics.

  - We will also explore the possibility of code cloning within given input and retrieved input by showing a similarity score between codes using some Similarity evaluation techniques.

- We can also try this to make an web app from which we can retrieve the results using API calls and try to make this extension much more portable to use rather Than restricting to eclipse plugin.

- Avoiding outdated code snippets in results which is generated in the current results.

- Further improve the UI to make it much more intuitive to use.

- ## Requirements →

  - ### Functional Requirements

    - The tool should work for multiple languages.
    - Evaluation metrics of the code retrieved to rank the codes.
    - Code Clones matching scores for given input and retrieved resulting snippet.
    - Improvement in search algorithms for searching code snippets for given input.
    - Expanding the search parameters to includes many code snippets containing websites to include more code examples.

  - ### Non-Functional Requirements

    - Tool should be fast in giving outputs in the form of code snippets.
    - Tool should work with least number of dependencies.
    - Nice and simple UI.
    - Portability of extension to use as API calls rather than extension.

- ## Use Cases of the plugin

  Some of the use cases of our plugin are as follows:-

  1. ### API usage

     Using SO posts to retrieve results of similar code snippets in the form of simple and easy to use API calls hiding all the unnecessary details.

  2. ### Algorithms completion

     While implementing algorithms we can use natural query to complete our code like "bubble sort in java?" will automatically complete your sorting algorithm code and can be used in many different ways.

  3. ### Searching similar codes snippets of given code

     Using Facoy to search for similar code snippets for syntax help for new programmers and people who do not remember code syntax much is a very important feature to have and a very useful use case.

  4. ### Code Cloning similarity finder

     We can find similarity between codes and give analysis based on it by defining some score for code cloning and it can be a prime use case of this extension.