

Software Engineering Lab Project

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Abstract

This project is aimed at enhancing the capabilities of Snipmatch - a Code Recommenders Incubator Project, used to search a growing repository of code snippets. Currently, Snipmatch provides the functionality of searching or adding to only one git repository at a time. We aim to extend to this multiple repositories so that a user can then search for a code snippet across various git repositories and add the same snippet to, or rate it in multiple repositories at the same time.

1 Introduction

Snipmatch is a search tool for quickly finding and inserting code snippets into your code tightly integrated into the code completion tools of Eclipse.

With Snipmatch developers can also share code snippets easily with the community. Snipmatch allows one to search a growing repository for the snippets needed. Moreover, the Snipmatch project develops tools that make it easy to contribute back to the community, be it by writing new snippets or rating the snippets others contributed.

2 Project Description

On a preliminary analysis it was concluded that the current design is not extensible. The code is poorly commented and lacks design principles. Keeping this in mind we are planning to come up with a new design which will be flexible enough to accommodate the needs of additional features and any other changes that the future may see. The final product is aimed to provide the following functionality :

- An interface to quickly find and insert code snippets from multiple repositories.
- An interface to add code snippets to multiple repositories.
- An interface to rate the code snippets present in the repository.
- Provide multiple repository formats like git, file system and svn. The project will be implemented in Java.

3 Testing the product

We will test the following features of the plugin on at least five repositories (of various kinds implemented).

- search for a snippet
- rate a snippet
- add a snippet

4 Timeline

March 16 - 22	Complete Preliminary Design
March 23 - 29	Revise the preliminary design and finalize it
March 30 - April 5	Implement system skeleton
April 6 - 12	Implement specified features
April 13 - 20	Testing

5 Suggested Extensions

We would like the plugin to provide the following functionality in addition to the above mentioned ones:

- Implement tag based identification system for snippets.
- Automatic rating of snippets.
- Associate snippets with version ranges for libraries used.
- Allow snippet exchange between different kinds of repositories of a user.
- Show warning when different snippets have same UUID.
- Allow people to mark snippets as outdated.

6 Resources

- Main Project Page - <https://docs.google.com/document/d/1d-R2QarpWeXL96Aght1JNiB13BmVIIfTaxTNSf-0z6Kk/edit>
- Ideas for future extensions - <https://docs.google.com/spreadsheet/ccc?key=0AtGf8BDOWA1SdFFPm1dVbVNtUWdkVHNNa2ZiMkJTdFE#gid=0>
- Ideas for future extensions - <https://docs.google.com/spreadsheet/ccc?key=0AtGf8BDOWA1SdFFPm1dVbVNtUWdkVHNNa2ZiMkJTdFE#gid=2>
- Source Code - <http://download.eclipse.org/recommenders.incubator/updates/milestones/>