ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ

VISVESVARAYA TECHNOLOGICAL UNIVERSITY - BELAGAVI

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8th Semester Project Proposal Presentation on

Code Integration System

Code Integration System

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Introduction

In this age of rapid growth of technology, programmers write millions of lines of codes everyday.

What if we could develop a system that finds the best implementation for a functionality.

And what if this system could provide re-usability of the code for everyone?

Abstract

Currently few to none applications are available that compares programs and analyzes their efficiencies.

The system analyzes the code, stores the most efficient functions in the code repository as and when encountered.

The major modules of this system are :

i.A performance evaluator engine

ii.Central repository

iii. Testing unit

Hw/Sw Requirement

Software requirements :

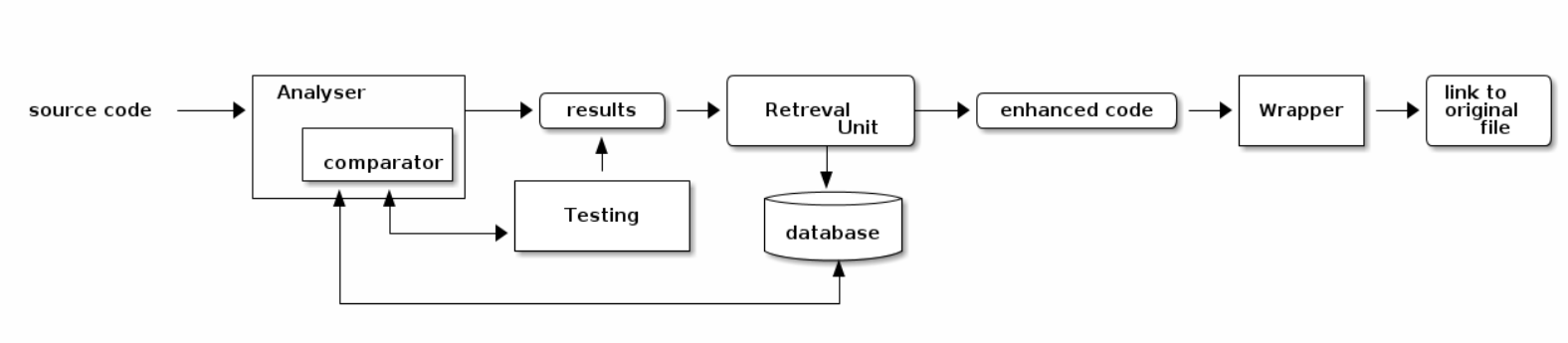
- Operating System :
  - server: Linux (ubuntu 16.04)
  - database: Linux (ubuntu 16.04) / windows
- Tools: Python, Mongodb, CherryPy, Docker

Hardware requirements (developed on)

- Processor : intel core i5
- Memory : 4GB Ram or higher
- Hard disk space : 2GB or more

Note : system requirements maybe subjected to change.

Methodology/ Technique to be applied



Advantages

- reusability of code
- multi language compatibility
- compare code
  - assessments
  - ranking
- visual results for the function
- retrieval of functions, mapping with tags
- testing using restrictions/ constraints on the input

Scope for future work

- handling the library requirements for the function
- tag based retrieval (porting / eval function)
- visual aspects for code development (flowcharts, class diagram)
- optimization
- analyser improvements to identify syntax of code

Conclusions

- visual aid for development and analysis
- compare code of different languages
- reduced plagiarism
- credit for work
- frequent enhancements

References

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Arwin, C., Tahaghoghi, S.M.M.: Plagiarism Detection across Programming Languages

D. Binkley "Source Code Analysis: A Road Map" IEEE Future of Software Engineering (FOSE'07)2007.