Developer Recommender

Find the suitable persons for the respective tasks and allocate

Harisuthan Thevalogeswarasarma

A dissertation submitted in partial fulfilment of the requirement for

Bachelor of Engineering (Honours) degree in Software Engineering

Department of Computing

Informatics Institute of Technology, Sri Lanka

in collaboration with

University of Westminster, UK

2020

Abstract

Software developers can gain software development experience through the medium provided by the social coding platforms. The contribution to source code will demonstrate the experience and talents of the particular developer on various filed of software development. To showcase a developer's knowledge and abilities, developer expertise has to be calculated through the aggregate development activity of each developer, and this developer expertise also known to be as Implementation expertise. Here we analyze the contribution developer in the projects and we identify the average push count to analyze the expertise level and the active time of the developer will be also taken from the open-source platform for the process. In this research, GitHub is used as an open-source platform.

The Developer Recommender System implemented to identify the most appropriate developer to accomplish the task, this recommender system provides recommending service within the corporate companies only. An important technique that was used in this system is the cosine similarity, through the cosine similarity the fetched task title analyzed with the completed task titles to provide the cosine similarity, through the collected attributes the suitable developer can be recommended. Through this, the project manager could identify the correct developer for the tasks that need to complete.

Keywords – Recommender System, Developer Recommender, Expertise, and Similarity measure.