UNIVERSITY OF LATVIA
FACULTY OF COMPUTING

Open-Source Software Database (OSSDB)

Databases and Information Systems Fundamentals

Author: Kristiāns Francis Cagulis
Student ID No.: kc22015

RIGA 2023

Table of contents

1. Introduction

Open-source software has grown in popularity over the years due to its collaboration, innovation, and cost savings benefits. Typically, open-source software is created and maintained by a community of developers who work together to improve their projects, share experiences, and contribute to their growth. As a result, today there are dozens of open-source projects in everything from software development to data science, robotics, and more.

However, with so many open-source projects available, it can be difficult to keep track of them. Project leaders and maintainers often struggle to find contributors to help build projects, while contributors struggle to find projects that match their interests and expertise. This is where the Open-Source Software Database (OSSDB) comes into play.

The OSSDB is a comprehensive online platform that acts as a central repository for tracking and managing open-source projects. This database provides project lists, search capabilities, filters, user profiles, etc. to help contributors find projects to contribute to and for project leaders and maintainers to find contributors to help build the project. The OSSDB aims to provide a platform that fosters collaboration, transparency, and innovation in the open-source software community.

OSSDB will be an open-source project in itself, and as such, will be free and accessible to everyone. This approach is in line with the open-source philosophy, which promotes collaboration, transparency, and community-driven innovation. This project aims to encourage more people to get involved in open-source projects and contribute to the community's growth. The project will rely on the contributions and feedback of the community to continuously improve and refine the OSSDB.

2. Features

The platform will offer project listings that include descriptions, contributors (username, email, and password), license types, code hosting platforms, programming languages, and project types. Users can easily find projects using the search and filter features that allow them to search by name, keyword, programming language, project type, license type, and contributors.

The OSSDB intends to implement several features in the long run to improve the platform's functionality and user experience. Among the features are notifications, a review and rating system, and a dedicated website.

Users will be able to receive notifications when other users request collaboration on a project to which they are interested or have contributed. This will allow users to connect with other developers who share their interests, fostering collaboration and innovation in the open-source software community.

The ratings and reviews feature will allow users to provide feedback and ratings on projects they have used or contributed to. This will assist other users in making informed decisions about which projects to use and contribute based on the experiences of other users.

Finally, there are plans to create a dedicated platform website that will serve as a central hub for discovering open-source software projects.