CS-RC – Revision control for CloudStudio

PROJECT PLAN

Software Engineering Laboratory Project

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1. PROJECT DESCRIPTION

Overview

The goal of this project is to bring SVN (Apache Subversion) support to the web-based IDE CloudStudio using the Google Web Toolkit.

Scope of the work

The main focus of this project is to implement functionalities into CloudStudio to import an Eiffel-Project from an existing SVN repository as well as to export a project from CloudStudio to such a repository. To make this implementation possible an investigation and extension of the database system for CloudStudio is needed to support clusters and to store project settings files.

2. PROJECT MANAGEMENT

Objectives and priorities

The first task is to get familiar with the software, code and concepts used in this project. This includes the Google Web Toolkit [3] which can be used inside the Eclipse IDE, a locally running MySQL database for testing purposes, Origo [4] and SVN [5] to allow collaboration and sharing of the code and of course the source code of CloudStudio itself. For the SVN support the SVNKit library [6] shall be used.

Objective 1
The current version of CloudStudio should be extended such that for each project the project settings are stored in the database and can be modified through a user interface with a subset of the options available in EiffelStudio. It should at least be possible to add and remove libraries and precompiles. Furthermore it should be possible to access and edit the project settings file itself from within the user interface. This has high priority.

Objective 2
Support for clusters should be added. This includes adding and removing of subclusters and a basic file system that should be stored in the database. This has high priority.

Objective 3
An extension should be added to allow users to import entire projects from a local or remote SVN repository. This includes at least importing all text-based files and the project settings file from a repository. This has highest priority.

Objective 4
The import feature should be extended to allow the user to select a certain revision number and the option to copy the project name from the imported project. This has low priority.

Objective 5
The import feature should be extended to also import byte files such as images. These files should be stored in the database and displayed next to the source files but can not be edited by the user. This has low priority.

Objective 6
It should be possible to export an existing project to an empty SVN repository. All files from the project should be copied to the repository. This has high priority.

Objective 7
Additionaly to exporting to an SVN repository it should be possible to download a project. The user should have the option to download all the project files and the project settings file in a zip archive. This has medium priority.

Criteria for success

The minimum requirements for this project to be accepted are that *Objective 1*, *2*, *3* and *6* are implemented. The goal is that an arbitrarily chosen SVN repository containing an Eiffel project may successfully be imported into CloudStudio, edited and then exported to an empty repository.
Objectives 4, 5 and 7 are extentions

REFERENCES

[1] Distributed Software Engineering Projects
http://se.inf.ethz.ch/student_projects/distributed.html

[2] CloudStudio
http://se.inf.ethz.ch/research/cloudstudio/

[3] Google Web Toolkit
http://code.google.com/webtoolkit/

[4] Origo
http://www.origo.ethz.ch/

[5] SVN (Apache Subversion)
http://en.wikipedia.org/wiki/Apache_Subversion

[6] SVNKit
http://svnkit.com/