

Développeur technologie Java J2E / Ajax OS Debian
Host company : Pentila Nero
Jury members : Christophe Rippert and Véronique Dudley-Beguin

Second year intern-ship

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Introduction

Introduire le sujet et l'articulation du rapport (2-3 paragraphes)

I worked during six months with the company named Pentila Nero, located in Chambéry. during this inernship, I have discover

1 Overview and context

Présenter le contexte dans lequel vous avez effectué votre stage : description de l'entreprise en lien avec le stage : organisation, enjeux pour l'entreprise, qui vous à encadré (une personne, une équipe, ...) (1 page maximum). Le «copier/coller» des sites web des entreprises est à proscrire !

1.1 The company

Pentila is a small company with 4 employees. They develop an application which is an electronic schoolbag. It is already used in some schools, especialy in Rhone Alpes. This application allows the educationnal community to . Parents can know their children's homeworks as well as their schedule. Students can hand in homework to their teachers directly on the website. It makes relation between school, parents and students easier.

But as in all company, you always have to improve your work. My tasks were mostly to help installing some new software useful for the application or for the team work, but also to find bugs into their application and later fix them.

They all work on MAC computer and I had a computer with Debian. The OS was fresh installed so it didn't have any work environment for the application.

2 Goals

Présenter les objectifs du stage afin que vos évaluateurs cernent bien la limite entre l'existant et votre contribution réelle : (environ 5 pages)

- le travail à réaliser ou le problème à résoudre
- l'état de l'art des solutions existantes et des contraintes fixées par l'entreprise
- votre solution motivée à partir de l'analyse ci dessus

My tasks were related to different fields such as installing new software for the team of developers, finding new bugs and reporting them into an application then fixing bugs. That's why I will present these tasks separately.

2.1 Instalation of Redmine

Redmine is a software for project management and bug-tracking. I had to install this application in order to allow the team to track bugs in their app. It was very useful for them to have an access into Redmine directly from their IDE (Eclipse). Hopefully, Redmine has several useful plugins available so I had to do some researchs to know which one could be useful for the developers, the goal was to make their work faster. Once this research done I had to install the plugins into Redmine.

The last step was to set up the Redmine's environment to allow the developers to use it easily.

2.2 Bugs tracking

- Functionality tests
- Installation of JMeter

2.3 Bugs fixing

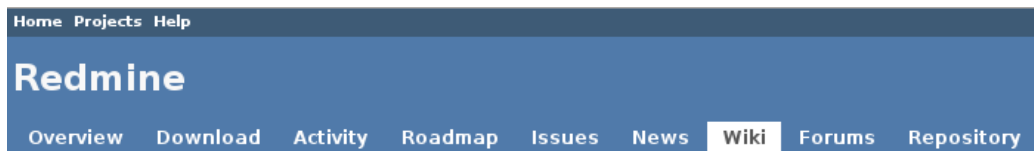
3 Softwares installation

Décrire votre travail (environ 6 pages)

- architecture de votre solution (vision haut niveau)
- implémentation de votre solution (détail technique) ou de la partie la plus intéressante si la place manque

In this part I will discuss the different softwares I have installed for the company. First of all I will focus on the research I have done. Then the details of the installation will be detailed.

3.1 Researches



I didn't know a lot about project managing so I had to look what was Redmine for and what this application will allow us to do.

Redmine is a powerful web based project managing which allow bugs tracking. It is possible to add a lot of functionalities to this application in installing some plugings into it.

I read about all the plugings for Redmine and finally chose some of them



Jenkins.

This application provides an easy to use continuous integration system. It is an application that monitors executions of repeated jobs such as bulding, testing a software project. It has 3 main features :

- It allows a team to share common information easily.
- It executes automatically compilation, testing without human intervention.
- It keeps a track of previous productions and allow us to see their development.



Mylin for eclipse connection.

Mylin is the task and application lifecycle management framework for Eclipse It allows to visualize tasks from Redmine repositorie and it has a connector to Jenkins.

It helps a developer to work efficiently with many different tasks (such as bugs, problem reports or new features). In a nutshell, it improves their productivity by reducing searching, scrolling, and navigation.



Ldap authentication.

Ldap is a protocol that allow us to access and maintain directory services. So we can access to some informations about the users of a network over TCP/IP protocol. With the ldap authentication into redmine, the users don't need to create a Redmine's account but they can directly access into their redmine's project by using their ldap password and login.

3.2 Implementation

I installed Redmine in ssh on an other machine. The installation was not very hard but allow me to know better the IT infrastructure. To have an access to Redmine we need to run a server. But it's a bit annoying to have to start the server every day or even more. That's why I searched how we can start a server automatically when we power up the computer. I add a daemon for the Redmine's server, and we can access to our Redmine instance directly.

Then I installed Jenkins plugin, meanwhile I learnt about SVN in order to add jobs into Redmine. SVN is a software versioning and revision control system, it allows Developers to maintain current and historical versions of files such as source code, web pages, and documentation.

The hardest part was to integrate Mylin into Eclipse. I needed a while to make it work but finally I just used the generic web connector of Eclipse.

The integration of ldap authentication into Redmine was straightforward. I just needed to configure the authentication mode with ldap data.

In a nutshell : Schema

3.3 Project creation

The last step was to create an instance for the project and look how to set up the environment in order to be nicest to use.

I wrote some wiki pages related to the project. I add a jenkins page into the project in order to have an access to Jenkins directly from their project. Finally I looked how to create new issues in order to be ready to report bugs into Redmine.

4 Testing



In this part I will describe testing. Firstofall I will fucus on the functional tests and then I leant about an application very useful that allow to register tests.

4.1 Functional tests

4.2 JMeter



5 Bugfix

Expliquer les résultats obtenus et analyser leur cohérence (environ 2 pages)

- plateforme de test mise en place, quelles métriques pour évaluer l'efficacité de votre solution
- l'adéquation avec les attentes de l'entreprise
- les perspectives ouvertes

6 Conclusion

Faire un bilan personnel du stage : (1 page) Présenter les obstacles, points durs les plus importants et les moyens entrepris pour les résoudre ; les compétences interpersonnelles acquises en entreprise

Conclure en résumant ce qui a été effectué durant le stage (2-3 paragraphes)

7 Bibliographic reference

Références bibliographiques le cas échéant ; une documentation technique déjà rédigée pourra être jointe en annexe.