
GSoC '19 Project Proposal : Debian PHP Packaging

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University: [Guru Gobind Singh Indraprastha University](#)
College: [G B Pant Engineering College](#)
Current Year: [4th Year](#)
Major: [Computer Science Engineering](#)
Graduation Year: [2019](#)

Development Tools

- **Gem2deb:** gem2deb is a set of tools to create Debian package from ruby software distributed with Rubygems. gem2tgz converts the .gem file to a tar archive, then dh-make-ruby creates a Debian source package from that archive. That Debian package uses the included Debhelper 7 helper, dh_ruby, to generate a proper Debian package. Both pure-ruby and native packages are supported
- **Dh-make:** *dh_make* is a tool to convert a regular source code package into one formatted according to the requirements of the *Debian Policy*
- **Lintian :** Lintian dissects Debian packages and tries to find bugs and policy violations. It contains automated checks for many aspects of Debian policy as well as some checks for common errors.
- **Quilt :** Tool to work with series of patches.
Quilt manages a series of patches by keeping track of the changes each of them makes.
- **Git :** Git is the distributed version control system. Git is responsible for keeping track of changes to content (usually source code files), and it provides mechanisms for sharing that content with others
- **Npm2deb :** npm2deb is an automatic tool which permits to fast deploy debian/* files starting from a module downloaded via npm.
- **Dh-make-golang :** tool that converts Go packages into *Debian* package source. *dh-make-golang* is a tool to automatically create *Debian* packaging for Go packages.

Project Overview

The main aim of the project will be to package Loomio and all its dependencies into Debian packages. It will involve learning about Loomio and how it works and, how to find dependencies and how to package them and test them for successful Packages into Debian.

Implementation Plan

- I will make a list of dependency of Loomio with their required version of the Packages and will compare it with the current list of Debian and then view the packages that are not packaged in Debian.
- Then, will check that the packages have any dependency or not , if there is any dependency i will see if its packaged or not , and if it's not packaged , i will package it too.
- I will be packaging the less complex packages first, get an understanding of the process, afterwards I'll start doing the complex packages and and fixing the errors.

Work Done till now

- Prepared a list of packages that are not in Debian and are available in Kali & checked their current status in debian using debian package tracker and wnpp.debian.net.
- List of packages & their status in Debian :
https://docs.google.com/spreadsheets/d/15ADSh8R8SBD0mpl61sZ5ZTmNN2LiR0q9qzVCS05A_fE/edit?usp=sharing
- Prepared a list of packages in python to be packed in Debian :
https://docs.google.com/spreadsheets/d/19vJn32sjc-ZZdtLM_UdYuvZa-ydYQ9hbq1nk9RuClQY/edit?usp=sharing
- Prepared a list of packages in ruby to be packaged in Debian
<https://docs.google.com/spreadsheets/d/1Sia2Ud8-NkfvDApWzzMdzSr3x7bEZe6l2nvK9nX1-P8/edit?usp=sharing>
- Based on some research made by me I have prepared a list of some mostly used kali linux tools that are not present in debian . These packages are-
 - **Maltegoce** Dependencies - default-jre, java-wrappers
 - **Burpsuite** Dependencies - default-jre, java-wrappers
 - **Joomscan** Dependencies - perl, libwww-perl, liblwp-protocol-https-perl, libregexp-common-perl
 - **Wpscan** Dependencies: - ruby, rubygems, bundler, rubygems-integration, ruby-typhoeus , ruby-nokogiri, ruby-yajl, ruby-terminal-table, ruby-ruby-progressbar, ruby-addressable, ruby-ffi, unzip, ruby-rspec, ruby-rspec-its, ruby-webmock, ruby-simplecov
 - **Sqlninja** Dependencies: - perl, libnetpacket-perl, libnet-pcap-perl, libnet-dns-perl, libnet-rawip-perl, libio-socket-ip-perl
 - **Dradis** Dependencies:-ruby, ruby-dev, bundler, ruby-sqlite3, libsqlite3-dev, libxml2-dev, libxslt1-dev, git, dh-systemd, default-libmysqlclient-dev, default-mysql-server, zlib1g-dev

These packages are more useful to the end-users .I will try to prioritise these packages & package them first.

Timeline

I assure you to dedicate 50 hours a week with no fail until the final submission

April 9, 2019 - May 6, 2019(Application Review Period)	I will understand the procedure & workflow involved in packaging packages. I will also learn about the tools used in python,ruby,java packaging ,so that I am able to complete everything that I have proposed smoothly
April 23 - May 13(Community Bonding Period)	During the community bonding period,I will get in touch with my mentors and fellow GSoC students and understand how we can work together. Also, I will discuss with my mentors the packages I will be working,based on my skills & need of the community.
May 14- May 21	Will be less active during this period.As I must be having my University Final Semester Exams. Will be active on IRC channel & available for any discussion with mentors & fellow GSoC students.
May 22 - May 29	Will look for dependencies needed for packages assigned to me by mentors.Will also check availability for these dependencies.
May 30 - June 14	Start Packaging those modules that are more useful to end users After confirmation by mentors, Planned to package these modules ("tentative" depends on mentor approval) - <ul style="list-style-type: none">• Maltegoce• Burpsite• Joomscan• ruby-ruby-progressbar(dependency of Wpscan)
June 15 - June 22	Package these modules as their dependencies are already packaged in

	debian . ("tentative" depends on mentor approval) : <ul style="list-style-type: none"> • Wpscan • SqlNinja • Dradis
July 1 - July 8	Now I will work with ruby packages & make them error free & clean("tentative" depends on mentor approval):- <ul style="list-style-type: none"> • ruby-dm-core • ruby-dm-do-adapter • ruby-dm-migrations • ruby-dm-serializer • ruby-dm-sqlite-adapter
July 9 - July 16	Start Packaging Python modules using dh-make Packaging tool. ("tentative" depends on mentor approval) : <ul style="list-style-type: none"> • pyexcel • pyexcel-io • pyexcel-text • pyexcel-xls
July 17 - July 24	Will package those packages that are not mentioned but are more useful to the people & are strictly assign to me by mentors.
July 25 - August 2	Work on those packages that are not packaged by me according to the Timeline plan & also fix the error & clean every bug in previous packages.During this period i will recover any unexpected delay in the schedule.
August 3 - August 21	I will end GSOC by completing the documentation of the project,writing blog posts and organizing outreach events in my college and encouraging the students to contribute to open source and Debian projects

I have my Final Semester Exams starting from 5th May & ending till 20th.I have mentioned this in timeline also, i will be unable to code during that period.But i will surely participate in every discussion on the IRC related to the project.

About me

I am a **third** year **Computer Science** student pursuing Bachelor of Technology from G B Pant Engineering College, Delhi. I am an open-source enthusiast & a passionate learner. I have been using different distros of Linux from past 1 year. I have started contributing to debian from past 2 months under the guidance of Pirate Praveen who guided me for packaging node-js modules & I found it pretty much interesting & i have packaged some modules like node-clone-response & node-keyv. (<https://qa.debian.org/developer.php?email=mohitphulera123@gmail.com>). I am part of some open-source Delhi-NCR based community like Indian Linux User Group (ILUGD) & Py-Delhi which promotes open source in Delhi-NCR. I have attended many hackathons & successfully completed them.

My Previous Contribution to debian

Packaged node-js modules using npm2deb packaging tool.

The modules I Packaged are :

- Node-clone-response (<https://salsa.debian.org/js-team/node-clone-response>)
- Node-keyv (<https://salsa.debian.org/js-team/node-clone-response>)

Why did I choose this project?

Out of all the amazing projects in Debian Project, Port Kali Packages to Debian is something that really caught my eye. As this project is meant to make Buster the best Debian release, so it will be a quite big contribution from me to the debian community & the Debian users. So for me, this is the best opportunity through which I could contribute to the linux distribution I use. I Will be happy to see my contribution on my OS new update.

I choose specifically this project because I enjoy packaging. Through this project, I could package a number of packages & contribute to upstream. I also wanted to learn how to interact with Upstreams.

Do I have any other commitments?

Except for 2 weeks during “Community Bonding Period” & starting of the “coding period” for my annual exams, I will be available throughout the course of GSOC. I will devote 50-55 hours every week, may be even more whenever there is a need to do so. I will always submit the scrums and blog posts on time. I will also try to organize or attend events promoting open source so that I could promote open source & Debian Project in my college & other places to. I will also try to bring more contributors to Debian Project with the help of these events.

I do not have any other personal or professional commitments during this period.

What is your plan after GSoC?

I would like to continue contributing to Debian Projects. I won't do it just for the sake of contribution but because I believe that you get to learn a lot of new things when you contribute or maintain an open source project.

I would especially encourage my college juniors to contribute to Debian Projects through various outreach events. I would like to mentor at various Debian programmes and become a maintainer if considered worthy of it.

Goals

Complete GSoc & planned to be part of Debian pkg security team and will maintain these packages in future.

Have You applied for any other project in GSoc?

No

References

- Kali packages : http://pkg.kali.org/derivative/kali-dev/#older_revision
- Debian bug tracker : https://tracker.debian.org/search?package_name=
- Kali bug tracker : <https://pkg.kali.org/>
- Wnpp : <https://wnpp.debian.net/>
- <https://google.github.io/gsocguides/student/proposal-example-1>
- <https://google.github.io/gsocguides/student/proposal-example-1>
- <https://packages.debian.org/sid/dh-python>
- <https://wiki.debian.org/Diaspora/Packaging/gem2deb>