

# ExplainShell for Chrome

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# Project Overview

- Chrome extension to provide easy lookup of bash commands using explainshell.com
- Backend analytics site to show trending commands, referring sites, popular pages, etc.

# Rationale Behind ExplainShell

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- Often difficult to look through `man` pages for bash command usage
  - ExplainShell for Chrome attempts to reduce the effort of lookup to bare minimum
- Helps users discover and explore more bash commands

# Goals

- Develop Chrome Extension that identifies and extracts bash commands from web pages
  - Add a link to each bash command that redirects users to the usage explanation on [explainshell.com](http://explainshell.com)
  - Display friendly in-page popup of command usage when users hover over a bash command

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  - Provides analytics based on what commands are being searched for
  - Helps users explore and discover commands they are not familiar with



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- Contribute to ExplainShell API

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- Contribute to ExplainShell API
- Eventually publish on Chrome Web Store for people to use

# Technologies Used

- Chrome Extension: HTML/CSS/Javascript
- Backend analytics site: Node.js
- VC with Git (on Github)

# Approach

- 1 Rudimentary version of Chrome extension: Allow users to select text and lookup selected command.

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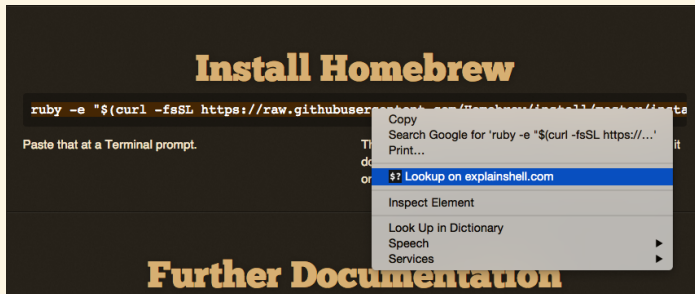
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You can force grep to ignore word case i.e match boo, Boo, BOO and all other combination with the `-i` option:

```
$ grep -i "boo" /etc/passwd
```

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Code explanation on ExplainShell

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- ⑤ Develop backend analytics site
- ⑥ Integrate analytics site with Chrome extension

# Original Schedule

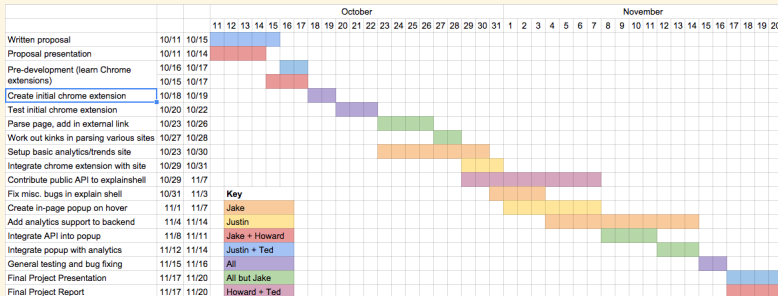


Figure 1 : Gantt Chart of original plan



# Revised Schedule

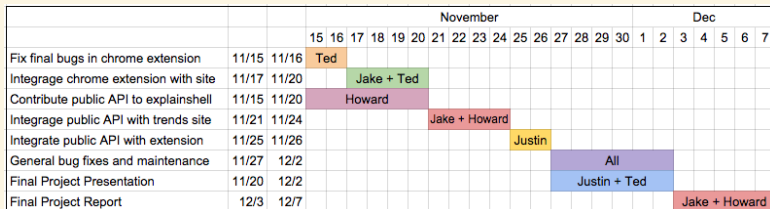


Figure 2 : Gantt Chart of revised plan

# Results

- Chrome extension supports embedded links and popups
  - Still no public API for explainshell.com
  - Popups pull up the full explainshell website
  - HTTPS not supported
  - Reports correctly to the trends website

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# Results

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  - Popups pull up the full explainshell website
  - HTTPS not supported
  - Reports correctly to the trends website
- Fully functional trends website
  - Track number of uses of extension
  - View clicks by time, source page, domain, and command
  - No authentication, API call in plain text Javascript

# Lessons Learned

- Plan lots of extra time to accommodate for changing schedules
  - We were often behind deadlines, causing others to be held up by bottlenecks
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  - Need to read lots of documentation and unfamiliar code
  - Pull requests take time
  - A lot of work is necessary to do it properly

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- Contributing to open source software is a large undertaking
  - Need to read lots of documentation and unfamiliar code
  - Pull requests take time
  - A lot of work is necessary to do it properly
- Documenting your code is essential
  - We often had problems running each others' code
  - Time is wasted trying to decipher what code is doing rather than adding to it

# Summary

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# Demo

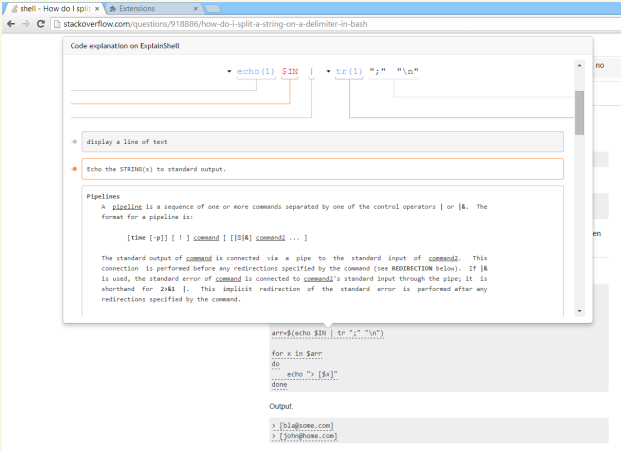


Figure 3 : Screenshot of ExplainShell Chrome Extension