

Version Control and Sharing with GitHub

Version control is a system that records changes files over time so that you can recall specific versions later. Git records snapshots of data. Every time you commit, or save the state of your project in Git, it takes a snapshot of what all your files look like at that moment and stores a reference to that snapshot. To be efficient, if files have not changed, Git doesn't store the file again.

1. Go to <https://github.com/> and sign up for a free account.

The screenshot shows the GitHub homepage. At the top, the GitHub logo is on the left, and navigation links for 'Signup and Pricing', 'Explore GitHub', 'Features', 'Blog', and 'Login' are on the right. Below the navigation bar, a dark blue banner displays '1,339,705 people hosting over 4,071,994 git repositories'. Underneath this banner is a search bar with the text 'jQuery, reddit, Sparkle, curl, Ruby on Rails, node.js, ClickToFlash, Erlang/OTP, CakePHP, Redis, and many more' and a 'Find any repository' button. Below the search bar are logos for various companies using GitHub: facebook, twitter, Microsoft, vmware, redhat, LinkedIn, and YAHOO!. The main content area is divided into two columns. The left column is for 'git' and describes it as an 'extremely fast, efficient, distributed version control system ideal for the collaborative development of software.' The right column is for 'git·hub' and describes it as 'the best way to collaborate with others. Fork, send pull requests and manage all your public and private git repositories.' Below these columns is a blue button labeled 'Plans, Pricing and Signup' with the text 'Unlimited public repositories are free!'. Underneath the button, it says 'Free public repositories, collaborator management, issue tracking, wikis, downloads, code review, graphs and much more...'. Below this is a section with four columns: 'Team management', 'Code review', 'Reliable code hosting', and 'Open source collaboration'. Each column has a brief description and a 'More about...' link. At the bottom, there is a 'Plans & Pricing' section with the text 'Join today and collaborate with the smartest developers in the world.' and a table showing the 'Free for open source' plan with 'Unlimited public repositories and unlimited public collaborators' for '\$0/mo'. A 'Create a free account' button is also present.

github [Signup and Pricing](#) [Explore GitHub](#) [Features](#) [Blog](#) [Login](#)

1,339,705 people hosting over 4,071,994 git repositories

jQuery, reddit, Sparkle, curl, Ruby on Rails, node.js, ClickToFlash, Erlang/OTP, CakePHP, Redis, and many more

facebook twitter Microsoft vmware redhat LinkedIn YAHOO!

git /'git/
Git is an extremely fast, efficient, distributed version control system ideal for the collaborative development of software.

git·hub /'git,hab/
GitHub is the best way to collaborate with others. Fork, send pull requests and manage all your **public** and **private** git repositories.

Plans, Pricing and Signup
Unlimited public repositories are free!

Free public repositories, collaborator management, issue tracking, wikis, downloads, code review, graphs and much more...

Team management
30 seconds to give people access to code. No SSH key required. Activity feeds keep you updated on progress.
[More about collaboration](#)

Code review
Comment on changes, track issues, compare branches, send pull requests and merge forks.
[More about code review](#)

Reliable code hosting
We spend all day and night making sure your repositories are **secure, backed up** and **always available**.
[More about code hosting](#)

Open source collaboration
Participate in the most important open source community in the world today—online or at one of our meetups.
[More about our community](#)

Plans & Pricing
Join today and collaborate with the smartest developers in the world.

	GitHub	Tools	Extras	Documentation
	About Blog Features	Gauges: Analyze web traffic Speaker Deck: Presentations Gist: Code snippets	GitHub Shop The Octodex	GitHub Help Developer API GitHub Flavored Markdown

\$0/mo **Free for open source**
Unlimited public repositories and unlimited public collaborators

[Create a free account](#)

2. Setup Git following the directions for you OS of choice
<http://help.github.com/set-up-git-redirect/> Once you have Git installed on your machine, you may need to customize your environment -
<http://progit.org/book/ch1-5.html>



Set Up Git

If you've found yourself on this page, we're assuming you're brand new to Git and GitHub. This guide will walk you through the basics and explain a little bit about how everything works along the way.

This is the guide for setting up git in **Linux**. There are also guides for **OSX** and **Windows**.

First: Download and Install Git

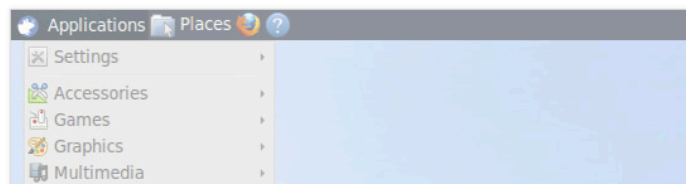
At the heart of GitHub is an open source version control system (VCS) called Git*. Created by the same dudes that created Linux, Git is responsible for everything GitHub related that happens locally on your computer.

**If you don't already know what Git is, take a crash course.*

1. Download and install the latest version of Git with Synaptic.

We suggest you install git-core, git-gui, and git-doc.

Note In newer Debian/Ubuntu installations you will find git instead of git-core.



3. Go to the GitHub repositories and follow a popular project
<https://github.com/popular/watched> that you could use for your ARIA project.
4. We are going to do some work on the GeoLocation API this week. Create a fork for the <https://github.com/cufa/ARIA-Git-Project> project so that you can use the `geo_mapPos_git.html`. Push an empty `.js` file into your project. In the next tutorial, you will need to develop your own JavaScript/jQuery to that uses the Geolocation API and Google Maps API - the output should be your own ARIA-Git-Project fork, which includes a `.js` to solve this.

Further References:

Pro Git Book <http://progit.org/book/>

GitHub Help <http://help.github.com/>

Interesting GitHub Repositories <https://github.com/repositories>

GitReference <http://gitref.org/>