Software installations  
ON UBUNTU LINUX

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horizontal line

# Prerequisites

Log in as a user with sudo privileges.

# Description

This document includes the steps to install ruby on rails on your ubuntu linux machine.

* Index
  + Ruby
  + SQLite3
  + Node.js
  + Yarn
  + gem
  + PostgreSQL
  + Thunderbird
  + Freeoffice
  + Slack
  + Docker
* Fonts

## Bold font shows title

* + Underlined font shows multiple ways of doing the same installation.
  + This font shows commands in terminal
  + This font shows general comment, description or normal text
  + The URL shows link
* Note
  + Open terminal shortcut Ctrl+Alt+T
  + sudo apt update - a command is used to update package information from configured sources. Before installing any application or package , it's recommended to update the system apt repository cache.
  + sudo apt upgrade - a command to upgrade apt repository cache
  + sudo apt install - a command is used to download latest version of application from online software repository pointed by source
  + The sources are often defined in /etc/apt/sources.
  + clear or Ctrl+L - a command to clear terminal screen. Still you can scroll up and see the old screen.
  + reset - a command to reinitialize the terminal

# Installation

## Ruby

To install Ruby from default Ubuntu repositories

* Open terminal
* Update package index
  + sudo apt update
* Install ruby
  + sudo apt install ruby-full
  + Do you want to continue ?
  + press y
  + press enter
* Check installed Ruby version
  + ruby -v

To install Ruby with RVM

If you want to install, manage & work with different Ruby versions, use RVM tool

* Open terminal
* Update package index
  + sudo apt update
* Install dependencies
  + sudo apt install curl g++, gcc, autoconf, automake, bison, libc6-dev, libffi-dev, libgdbm-dev, libncurses5-dev, libsqlite3-dev, libtool, libyaml-dev, make, pkg-config, sqlite3, zlib1g-dev, libgmp-dev, libreadline-dev, libssl-dev
* Install GPG keys to verify installation package
  + gpg --keyserver hkp://pool.sks-keyservers.net --recv-keys 409B6B1796C275462A1703113804BB82D39DC0E3 7D2BAF1CF37B13E2069D6956105BD0E739499BDB
* Install RVM stable version
  + curl -sSL https://get.rvm.io | bash -s stable
* Start RVM
  + source ~/.rvm/scripts/rvm
* Install Ruby with version
  + rvm install 2.5.1
  + rvm use 2.5.1 --default
* Check installed Ruby version
  + ruby -v

## SQLlite3

* Open terminal
* Update package index
  + sudo apt update
* Install SQLite3
  + sudo apt install sqlite3
  + SQLite3 –- version
  + sudo apt install sqlitebrowser
* Remove SQLite
  + sudo apt —-purge remove sqlitebrowser -u postgres psql

## Yarn

* Open terminal
* Update package index
  + sudo apt update
* Install Yarn
  + sudo apt install yarn
  + yarn – - version
* Note : cmdtest and yarn

## Node js and npm

* Open terminal
* Update package index
  + sudo apt update
* Install Node js
  + sudo apt install nodejs
  + node -v
* Install npm
  + sudo apt install npm
  + npm -v

## Rails

* Open terminal
* Update package index
  + sudo apt update
* Install rails
  + gem -v
  + sudo apt install rails
  + rails -v

## PostgreSQL

* Open terminal
* Update package index
  + sudo apt update
* Install Postgres server and contrib package
  + sudo apt install postgresql postgresql-contrib
* Contrib package provides several additional features for database
* Verify installation
  + Once installation is done PostgreSQL service will start automatically
* Connect to database server using psql
  + sudo -u postgres psql -c "SELECT version();"
  + Psql is command line utility allows us to interact with PostgreSQL server

**Notes**

* How to login to Postgres server ?
  + Switch to Postgres user and use psql
    - sudo su - postgres
    - psql
  + OR
    - sudo u - postgres psql
* How to exit from the Postgres shell ?
  + \q
* How to create a Postgres roll ?
  + sudo su -postgres -c “createuser admin”
* How to create a Postgres database?
  + sudo su -postgres -c “creatdb example\_database”
* How to grant database privileges to a user?
  + sudo -u postgres psql
  + GRANT ALL PRIVILEGES ON DATABASE example\_database TO admin;
* How to create a role and grant privileges to a user?
  + sudo -i -u postgres psql
  + Create role admin with createdb login password 'password';
* By default, PostgreSQL server listens only on local interface 127.0.0.1

## Thunderbird

Thunderbird is a lightweight, open source, cross platform email client.

To install Thunderbird from command line

* Open terminal
* Update package index
  + sudo apt update
* Install Thunderbird
  + $ sudo apt install thunderbird
* Launch Thunderbird
  + $ thunderbird

To install Thunderbird using GUI

* Activities menu in top/bottom left corner → Software
* Search Thunderbird application
* Install
* Authenticate
* Launch

## Freeoffice

To install Freeoffice using GUI

* Activities menu in top left corner → Software
* Search Freeoffice application
* Install
* Launch

## Slack

Software for a business communication platform

* Open browser
* Search “Download slack for linux”
* Go to <https://slack.com/downloads/linux>
* DOWNLOAD .DBE (64 bit)
* Save file , click Ok
* Go to Files -> Downloads
* Select downloaded slack folder
* Install with installer
  + Right click ->Open with Software install
  + Click Install
  + Authenticate
* Install with terminal
  + Right click ->Open terminal
  + sudo dpkg -i slack-desktop…deb
* Once installation is done, go to left bottom corner of screen
* Click Show applications
* Search Slack
* Open
* Sign In to your Workspace

## Install Docker

A tool to automate the deployment of the application in containers so that the application can work in different environments.

* <https://www.simplilearn.com/tutorials/docker-tutorial/how-to-install-docker-on-ubuntu>
* Open terminal
* Remove any docker file running
  + $ sudo apt-get remove docker docker-engine docker.io
* Update system
  + sudo apt-get update
* Install docker and its dependencies
  + sudo apt install docker.io
  + sudo snap install docker
  + docker — versions
* Pull an image from docker hub
  + sudo docker run hello-world
* Check the docker image
  + sudo docker images
* Display all docker containers
  + sudo docker ps -a
* Check for containers in running state
  + sudo docker ps

**References**

* <https://linuxize.com/post/how-to-install-ruby-on-ubuntu-18-04/>
* <https://rvm.io/rvm/install>
* <https://github.com/rvm/ubuntu_rvm>
* <https://linuxize.com/post/how-to-install-postgresql-on-ubuntu-18-04/>
* <https://linoxide.com/how-to-install-ruby-on-rails-on-ubuntu-20-04/#:~:text=Install%20Rails%20on%20Ubuntu,install%20Rails%20on%20ubuntu%2020.04.&text=You%20can%20use%20gem%20install,Rails%20installation%20on%20your%20system>.