

# Sayit.Today Installation Guide

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## Introduction

Sayit.Today simplifies the process of reporting minor issues in hospitals via introduction of an application that reduces the burden of filing reports and provides crowdsourcing solutions to issue management.

## Purpose

The purpose of this document is to describe how to use setup Sayit.Today on a web server capable of running Node.js® (here's we assume the environment is Linux, however that is not strictly necessary).

## Intended audience

This document is intended for administrators tasked with installing and setting up Sayit.Today. We presume administrators have some degree of experience using Linux and have root access to the server they are installing on. The instructions may be a bit basic for more experienced administrators for whom we recommend using this only as a guide.

## Background and acknowledgements

Sayit.Today is an open-source web application developed by Horizon Digital Economy Research, University of Nottingham, and is usable by staff through their PCs or on their mobile devices. The application is built on a reactive web framework called Meteor.js (<http://www.meteor.com>). Sayit.Today has been designed to ensure that data entry is fast, transparent, secure, and synchronised between staff, managers and the trust at very low latency. At its heart this tool reinforces NUH values and helps meet safety review criteria.

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## Support, feedback and collaboration

The Sayit.Today Project team is interested in your experience using Sayit.Today. Contact us if you require additional support or have feedback for us.

## Document contents

The remainder of this document describes how to set up Sayit.

## Installation

The following sections describe procedures to install Sayit.Today on a Linux server. These instructions have been tested with Ubuntu 14.04 LTS server, however other versions of Linux should work as well. It should take around 15 minutes to complete these steps.

Sayit.Today requires the following software to run:

- MongoDB
- Node.js®
- Meteor.js
- Sayit.Today application (from <https://github.com/pszjmb1/grumblebutton>)

Sayit.Today is served as a website, so requires HTTP and/or HTTPS access. It also sends emails for notifications. For this to work the server should allow SMTP.

The following describes setting each of the main components up. Commands are for a Linux console. Change PASSWORDs to something secure.

Note that there are alternative methods to deploy Meteor applications. For simplicity here we are going to install Meteor on the server and run Sayit.Today as a Meteor bundle being directly served by Node.js. An alternative to this could be to bundle Sayit.Today externally (ideally using the Demeteorizer tool – see <http://blog.modulus.io/demeteorizer>), which can then be loaded into a Node.js environment. Such an environment can be served from an HTTP server such as NginX (see <http://journal.gentlenode.com/meteor-1-deploy-a-meteor-application-on-ubuntu-with-nginx/> for instructions) or Apache (see <http://ox86.tumblr.com/post/45184656062/running-your-meteor-js-application-on-your-own-server>).

Also note that MongoDB does not have to be on the same server as Node.js (although the application will need to have access to it), however for simplicity here we install everything together on a single server.

## MongoDB

MongoDB is an open-source popular NoSQL document database. For more information on setting up and using MongoDB see <http://docs.mongodb.org/manual/tutorial/install-mongodb-on-ubuntu/>.

1. Install the latest stable version of MongoDB
  - a. `sudo apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv 7F0CEB10`
  - b. `echo 'deb http://downloads-distro.mongodb.org/repo/ubuntu-upstart dist 10gen' | sudo tee /etc/apt/sources.list.d/mongodb.list`
  - c. `sudo apt-get update`
  - d. `sudo apt-get install -y mongodb-org`
2. Setup the MongoDB admin user
  - a. `mongo` # opens the MongoDB program shell; Note that sometimes this fails. If so then run `sudo apt-get purge mongodb-org`, followed by `sudo apt-get install -y mongodb-org`, and then `mongo`.
    - i. `db = db.getSiblingDB('admin')`
    - ii. `db.createUser({ user: 'admin', pwd: 'PASSWORD', roles: [ {role: "userAdminAnyDatabase", db: 'admin' } ] })`
    - iii. `exit`

- b. `sudo nano /etc/mongodb.conf`
    - i. `auth = true`
  - c. `sudo service mongod restart`
- 3. Add a MongoDB user for Sayit.today
  - a. `mongo -u admin -p --authenticationDatabase admin`
  - b. `use sayit`
  - c. `db.createUser({ user: 'sayit', pwd: 'PASSWORD', roles: [ {role: "readWrite", db: 'sayit' } ] })`
  - d. `exit`

## Node.js®

- 4. Install Node.js® with the Node Version Manager
  - a. `sudo apt-get install libssl-dev git-core pkg-config build-essential curl gcc g++`
  - b. `git clone git://github.com/creationix/nvm.git ~/nvm`
  - c. `source ~/nvm/nvm.sh`
  - d. `nvm install v0.10.31` #use the latest version of Node.js (currently 0.10.31)
  - e. `nvm use v0.10.31`
  - f. `n=$(which node);n=${n%/bin/node}; chmod -R 755 $n/bin/*; sudo cp -r $n/{bin,lib,share} /usr/local` # installs node globally and make it available to all users

## Meteor.js

- 5. Install Meteor and Meteorite
  - a. `curl https://install.meteor.com | /bin/sh`
  - b. `sudo npm install -g meteorite`

## Sayit.Today application

- 6. Clone the Sayit.Today repository
  - a. `git clone https://github.com/pszjmb1/grumblebutton`
- 7. Bundle and install the Sayit application
  - a. `cd grumblebutton /`
  - b. `sudo mrt add accounts-ui-bootstrap-dropdown`
  - c. `sudo meteor bundle bundle.tgz`
  - d. `tar -zxvf bundle.tgz`
- 8. Run Sayit
  - a. #The following command should be run in the background (can use & or Screen). Ideally it can be run from Forever (<https://github.com/nodejitsu/forever>), as using a cron job to monitor if it is running and if not restart it.
  - b. `sudo PORT=80 MONGO_URL=mongodb://localhost:27017/sayit ROOT_URL=http://CORRECT_URL node bundle/main.js`
- 9. Set up email sending by following these instructions: <http://docs.meteor.com/#email>