

BluberryDB Installation Guide

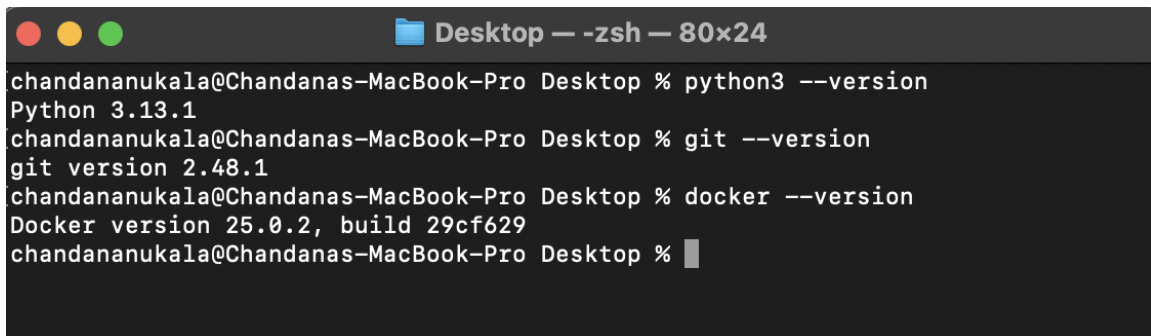
Watch this video for detailed project setup and an in-depth explanation of all the functionalities that I have developed: <https://www.youtube.com/watch?v=euSWtnm8EfQ>

Tech Stack:

- Front End: React
- Backend: Django
- Database: PostgreSQL

Prerequisites:

- Ensure you have Python installed (version 3.7 or later).
You can download it from Python's official website: <https://www.python.org/downloads/>
- Install Git if not already installed.
You can get it from Git's official website: <https://git-scm.com/downloads/>
- Ensure Docker is running on your system.
You can download it from: <https://www.docker.com>
- Ensure you have a virtual environment tool such as venv or virtualenv installed
You can download virtualenv from [Python's official website](#)

A terminal window titled "Desktop — -zsh — 80x24" showing the user chandanukala@Chandanas-MacBook-Pro running three commands to check installed versions. The first command is 'python3 --version' which returns 'Python 3.13.1'. The second is 'git --version' which returns 'git version 2.48.1'. The third is 'docker --version' which returns 'Docker version 25.0.2, build 29cf629'.

```
chandanukala@Chandanas-MacBook-Pro Desktop % python3 --version
Python 3.13.1
chandanukala@Chandanas-MacBook-Pro Desktop % git --version
git version 2.48.1
chandanukala@Chandanas-MacBook-Pro Desktop % docker --version
Docker version 25.0.2, build 29cf629
chandanukala@Chandanas-MacBook-Pro Desktop %
```

Installation Steps:

Clone the Repository:

Open a terminal or command prompt and run:

```
git clone https://github.com/chandanaNukala/BluberryDB.git
```

After cloning change the directory:

```
cd BluberryDB
```

Checkout to master branch:

```
git checkout master
```

```
chandanukala@Chandanas-MacBook-Pro ~ % git clone https://github.com/chandanaNukala/BluberryDB.git
Cloning into 'BluberryDB'...
remote: Enumerating objects: 149, done.
remote: Counting objects: 100% (149/149), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 149 (delta 56), reused 130 (delta 40), pack-reused 0 (from 0)
Receiving objects: 100% (149/149), 753.25 KiB | 1.47 MiB/s, done.
Resolving deltas: 100% (56/56), done.
chandanukala@Chandanas-MacBook-Pro ~ % cd BluberryDB
chandanukala@Chandanas-MacBook-Pro BluberryDB % git checkout master
branch 'master' set up to track 'origin/master'.
Switched to a new branch 'master'
chandanukala@Chandanas-MacBook-Pro BluberryDB %
```

Set Up a Virtual Environment:

Run the following command to create a virtual environment:

```
python -m venv venv
```

Or

```
python3 -m venv venv
```

Activate the virtual environment:

Windows: `venv\Scripts\activate`

Mac/Linux: `source venv/bin/activate`

```
chandanukala@Chandanas-MacBook-Pro BluberryDB % python -m venv venv
zsh: command not found: python
chandanukala@Chandanas-MacBook-Pro BluberryDB % python3 -m venv venv
chandanukala@Chandanas-MacBook-Pro BluberryDB % source venv/bin/activate
(venv) chandanukala@Chandanas-MacBook-Pro BluberryDB %
```

Backend (Django) setup:

Navigate to backend directory: `cd backend`

Stop any active running containers: `docker-compose down`

Build the docker image `docker-compose build`

Start the backend docker container `docker-compose up -d`

Wait for the docker to spin up all the containers and setup the environment.

```
(venv) chandanankala@Chandanas-MacBook-Pro BluberryDB % cd backend
(venv) chandanankala@Chandanas-MacBook-Pro backend % docker-compose down
(venv) chandanankala@Chandanas-MacBook-Pro backend % docker-compose up -d
[*] Running 2/3
| Network backend_default Created
| Container bluberry_postgres Healthy
| Container django_app Started
(venv) chandanankala@Chandanas-MacBook-Pro backend % docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS                               NAMES
6cf9b61c8246   backend-web                          "sh -c 'python manag-" 14 seconds ago Up 2 seconds 0.0.0.0:8080->8080/tcp             django_app
921b23ba8ee1   postgres:15                          "docker-entrypoint.s-" 14 seconds ago Up 15 seconds (healthy) 0.0.0.0:5432->5432/tcp             bluberry_postgres
7ac080fe9467   ianmedia-dev-httpd                  "/usr/local/apache2/" 8 days ago     Up 8 days     127.0.0.1:80->80/tcp, 127.0.0.1:443->443/tcp  ianmedia-dev-httpd-1
69a42041d44e   ianmedia-dev-php82                  "docker-php-entrypoi-" 9 days ago     Up 8 days     9080/tcp                             ianmedia-dev-php82-1
93f8ec4591a7   ianmedia-dev-php86                  "docker-php-entrypoi-" 2 months ago   Up 8 days     9080/tcp                             ianmedia-dev-php86-1
60a1574967a5   persona/persona-server:0.3          "/docker-entrypoint.…" 2 months ago   Up 8 days     3306/tcp, 0.0.0.0:53725->3306/tcp  ianmedia-dev-db-1
8e1b2b47d9bb   mailhog/mailhog                      "MailHog"               2 months ago   Up 8 days     0.0.0.0:1025->1025/tcp, 0.0.0.0:8025->8025/tcp  ianmedia-dev-mailhog-1
(venv) chandanankala@Chandanas-MacBook-Pro backend %
```

First you need to create a Superuser who can function as admin to approve the registered users:

Access the web Container: `docker-compose exec web bash`

Create the superuser: `python manage.py createsuperuser`

Follow the prompts (setup email and password), Make sure to remember these credentials

```
backend — -zsh — 118x24
(venv) chandanankala@Chandanas-MacBook-Pro backend % docker-compose exec web bash
root@57c97cebbdbb:/app# python manage.py createsuperuser
Email: nukala.chandana@ufl.edu
Username: nukala.chandana
Password:
Password (again):
Superuser created successfully.
root@57c97cebbdbb:/app# exit
exit
(venv) chandanankala@Chandanas-MacBook-Pro backend %
```

FronEnd (React) setup:

Open another terminal and navigate to frontend folder in BluberryDB

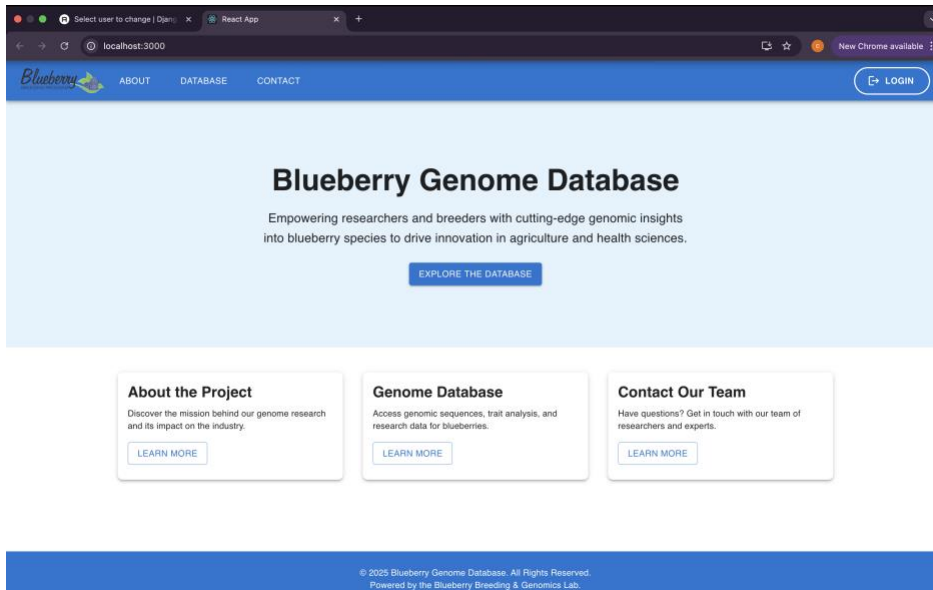
Navigate to frontend folder: `cd frontend`

Install Dependencies: `npm install`

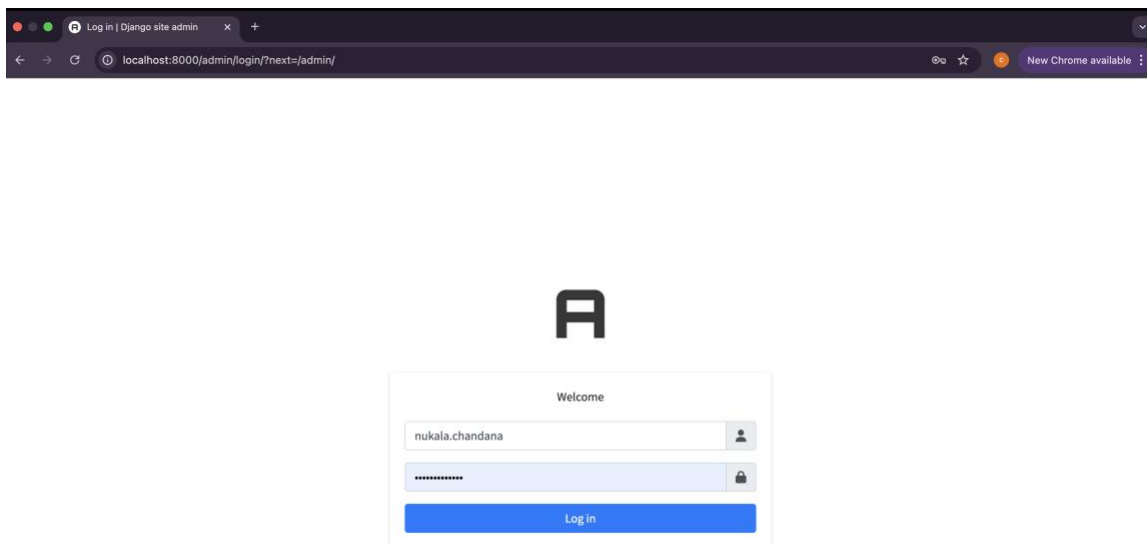
Start the frontend server: `npm start`

Usage:

To access the web application (React): <http://localhost:3000>



Now you can access the admin portal using <http://localhost:8000/admin>



Django administration

nukala.chandana

Dashboard

Api

Profiles

Users

Authentication and Authorization

Groups

Token Blacklist

Blacklisted tokens

Outstanding tokens

Users

Home > Api > Users

Add user

is active

is staff

Search

Go

0 of 2 selected

<input type="checkbox"/>	Email	Username	Is active	Is staff
<input type="checkbox"/>	nukala.chandana@uft.edu	nukala.chandana	✓	✓
<input type="checkbox"/>	chandana.nukala24@gmail.com	chandananukala	✓	✓

2 users

Copyright © 2025 - All rights reserved.

Jazzmin version 3.0.1