# Setting up the server environment.

Note: The following instructions are targeted for Linux and macOS environments. If you are using a Windows environment, adjust the CLI commands accordingly.

## Prerequisites:

1. Docker
   a. To install docker, go to https://docs.docker.com/install/ and choose the appropriate installation instructions.
   b. Select the Community Edition.
2. Node and npm
   a. Go to https://docs.npmjs.com/downloading-and-installing-node-js-and-npm and follow the instructions for your environment.
   b. It is also recommended to install NVM which can be found on the same page. NVM is for managing node versions.
3. Git
   a. Go to https://git-scm.com/downloads and follow the instructions for installing git in your environment.

## Clone:

1. Open a terminal in you preferred directory, such as home.
   ```
   cd ~
   ```
2. Clone the repository:
   ```
   git clone https://github.com/kenbonilla/irondb.git
   ```

## Automatically install and launch containers:

Note: These methods are tested on Ubuntu 18.04 LTS, and macOS 10.14. If using Windows, it may be necessary to adjust the commands.

1. Open the root directory:
   ```
   cd ~/irondb
   ```
2. Run the setup script:
   ```
   ./iron.sh -flag
   ```
   **`-h` – Help:**
   > To see the list of all options.

   **`-i` – First time installation:**
   > This should be run the first time you are launching the IronDB. This will install local and global dependencies, build the containers, and launch the containers.

   **`-l` – Launch:**
   > Installs local dependencies and launches prebuilt containers.

`-p` **– Populate and Launch:**
> Installs local dependencies, runs the Postgres init, and launches prebuilt containers. This will delete the local copy of the database before running the init.
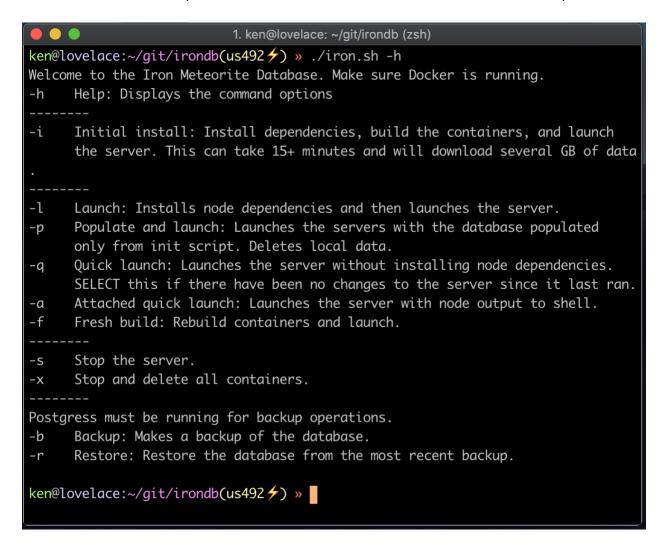
`-q` **– Quick Launch:**
> Launches prebuilt containers without install dependencies or running the Postgres init.

`-s` **– Stop containers:**
> Stops the containers.

There are several other options that are not covered in this document. Read the help for more.

```
ken@lovelace:~/git/irondb(us492⚡) » ./iron.sh -h
Welcome to the Iron Meteorite Database. Make sure Docker is running.
-h    Help: Displays the command options
--------
-i    Initial install: Install dependencies, build the containers, and launch
      the server. This can take 15+ minutes and will download several GB of data
.
--------
-l    Launch: Installs node dependencies and then launches the server.
-p    Populate and launch: Launches the servers with the database populated
      only from init script. Deletes local data.
-q    Quick launch: Launches the server without installing node dependencies.
      SELECT this if there have been no changes to the server since it last ran.
-a    Attached quick launch: Launches the server with node output to shell.
-f    Fresh build: Rebuild containers and launch.
--------
-s    Stop the server.
-x    Stop and delete all containers.
--------
Postgress must be running for backup operations.
-b    Backup: Makes a backup of the database.
-r    Restore: Restore the database from the most recent backup.

ken@lovelace:~/git/irondb(us492⚡) » █
```

3. Go to your browser and navigate to http://localhost:3001/ . This should bring you to the landing page.

**Manually install and launch the containers:**

1. Enter the root directory:
`cd ~/irondb`

2. Install the npm dependencies:

```
npm install
sudo npm install -g gulp-cli
sudo npm install -g jest-cli
gulp sass
gulp js
```

3. **Warning!** *This will delete the local copy of the postgres database, backup important files before continuing.* If the root directory has a folder name **pg-data** then:
`sudo rm -rf pg-data`

4. Make the postgres folder:
`mkdir pg-data`

5. Remove previous files and directories:
`sudo rm -rf pg-data`

6. Build and launch the containers: `docker-compose up --build -d`
The `--build` flag is important for ensuring that you are not trying to run an outdated container.
The `-d` flag is for running the containers in a detached state.

7. Navigate to http://localhost:3001/ which will take you to the landing page.

## Shutdown procedures:

Shutdown with the Iron Shell `./iron.sh -s`

**--- OR ---**

Enter the command `docker-compose down`

## Restart the server:

To restart the server using pre-built containers, run the following command:
`./iron.sh -sq` which stops the containers then runs a quick launch.

**--- OR ---**

To rebuild the containers before restarting the server, run the following command:
`./iron.sh -si` which stops the containers and then runs a full install.

## In case of docker errors:

Note: When docker is shut down improperly, it may result in errors launching containers in the future. Attempt this before launch in case of docker errors. If when trying to build or launch the

containers, you receive an error about not having enough space, this is likely because of dangling containers.

To delete all containers enter the following command:
`./iron.sh -x`

**--- OR ---**

```
docker-compose down
docker stop $(docker ps -aq)
docker rm $(docker ps -aq)
```

(EOF)