# wai-sdg-portal

Akvo

# **INSTALL**

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INSTALL 1

2 INSTALL

# **INSTALLATION GUIDE**

**Warning:** Below step is for production-ready installation process. Please follow Developer-Guide to setup the development mode.

# 1.1 System Requirements

**System Memory** 

4 GiB

**CPU** 

2 GHz Dual Core Processor

Storage

25 GiB or more Disk

**Operating System** 

Ubuntu Server 22.04

# 1.2 Prerequisite

**Docker Engine** 

20.10 or above

Git

2.39 or above

**3rd Party Service Providers** 

- Auth0
- Mailjet

# 1.3 Preparation

**Note:** The following guide is an example installation on **Ubuntu and Debian based systems**. It has been with **Ubuntu 22.04**.

# 1.3.1 Install Docker Engine

You need the latest Docker version installed. If you do not have it, please see the following installation guide to get it.

1. Update the apt package index and install packages to allow apt to use a repository over HTTPS:

```
sudo apt update
sudo apt install ca-certificates curl gnupg lsb-release
```

2. Add Docker's official GPG key:

```
sudo mkdir -p /etc/apt/keyrings
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /

--etc/apt/keyrings/docker.gpg
```

3. Use the following command to set up the repository:

4. Update the apt package index:

```
sudo apt update
```

5. Install Docker Engine, containerd, and Docker Compose.

```
sudo apt-get install \
  docker-ce docker-ce-cli \
  containerd.io docker-compose-plugin
```

6. Manage Docker as a non-root user

```
sudo groupadd docker
sudo usermod -aG docker $USER
newgrp docker
```

## 1.3.2 Install Git Version Control

The WAI SDG Portal uses git as version control. Therefore it is better to install git to make it easier to retrieve updates instead download the repository zip.

sudo apt install git

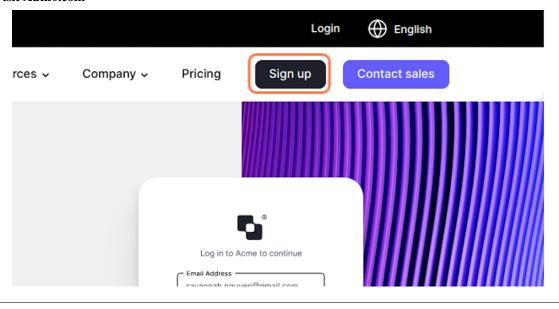
# 1.3.3 Auth0 Identity Providers

This application **DO NOT** store directly any personal information. WAI SDG Portal uses AUTH0 for a flexible solution to add authentication services.

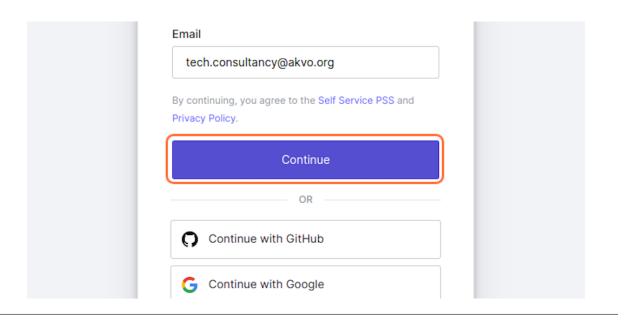
Please visit AUTH0, then follow below guide:

#### **Create Auth0 Account**

#### 1. Visit Auth0.com



## 2. Sign up new account



# 3. Finish Sign Up

☐ I need advanced settings ③

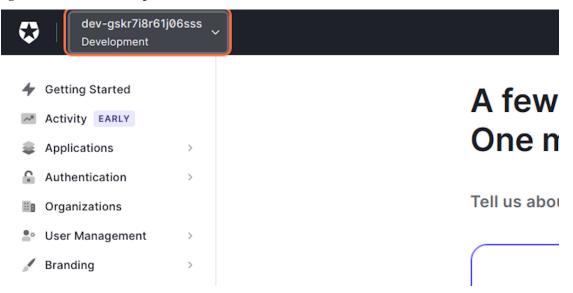
We've assigned your data region to the United States and given you a tenant name. Check this box If you need to process your data in a different region to comply with privacy laws.

NEXT

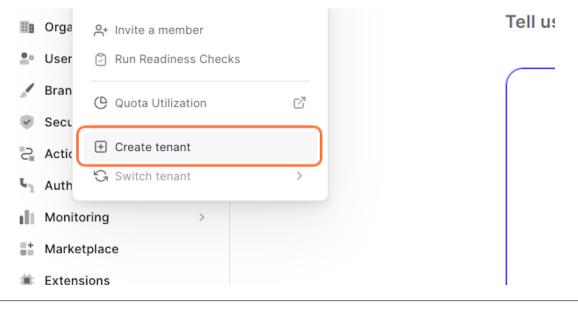
By submitting, I agree to the processing and international to personal data by AuthO (a product unit within Okta) as descentively.

# **Creating New Tenant**

## 1. Navigate to Left Corner Dropdown

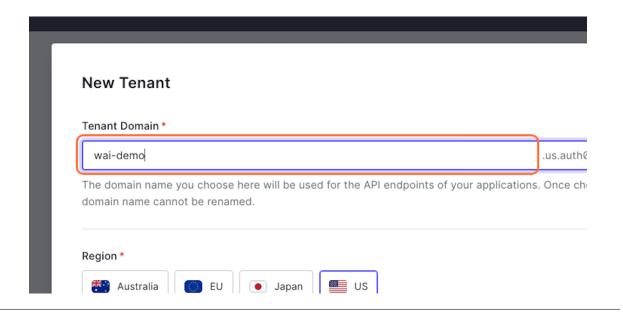


#### 2. Click create New Tenant

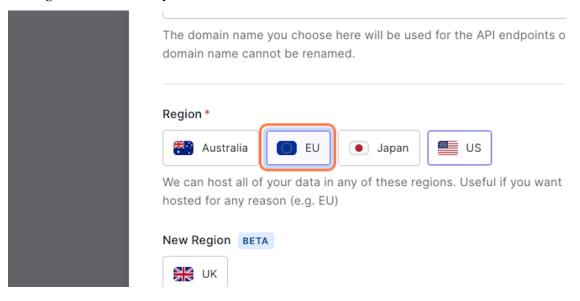


#### 3. Fill the Tenant Domain

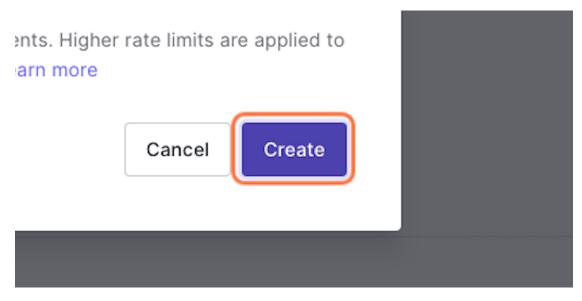
**Note:** Please use your website domain so it can be more consistent



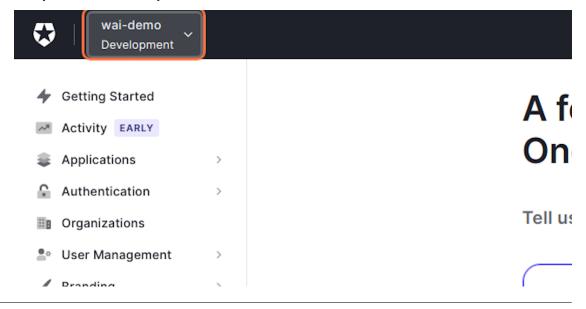
# 4. Choose region that is closer to your server



## 5. Finish, Click Create



Now you have switched to your new tenant\*\*

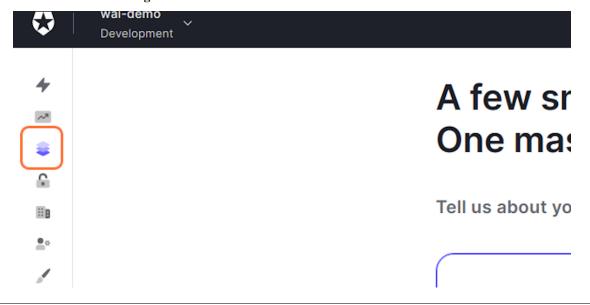


## **Create Application**

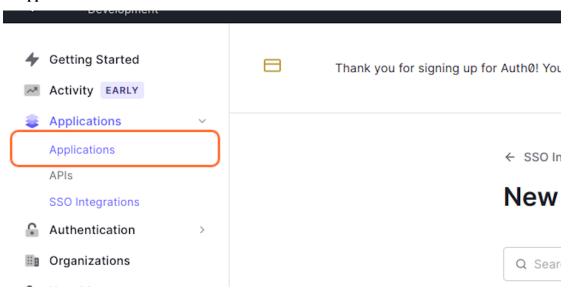
To run this site, 2 types of applications are required for the authorization and authentication process. The first application is the Single Page Application (SPA) type authentication which needed by The JavaScript frontend to authenticate. The second application is for verifying the token that has been created by the frontend which will be used for the process of authorizing access to all the Backend endpoints (API)

## **Create New SPA Application**

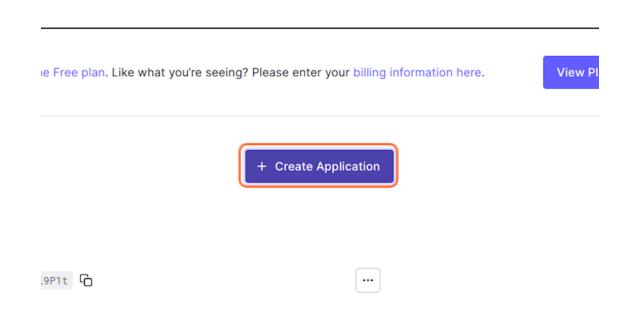
#### 1. Click the 3rd icon in the right corner



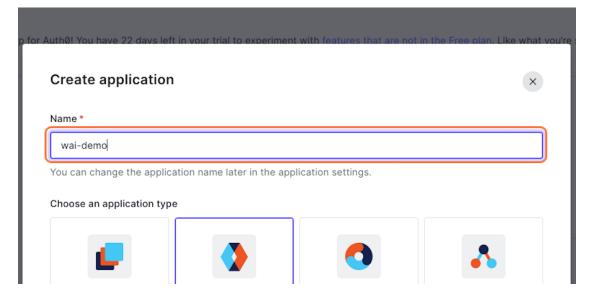
#### 2. Click Applications

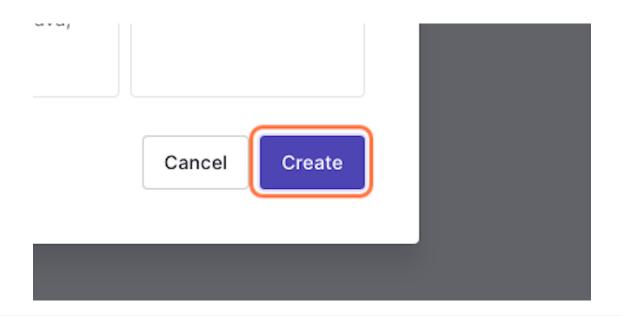


#### 3. Click Create Application



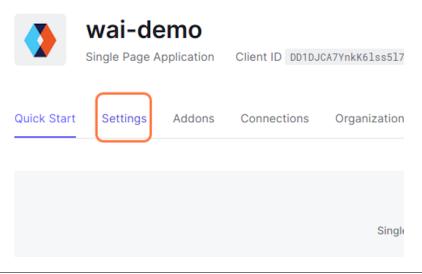
## 4. Fill the name field then Click Create



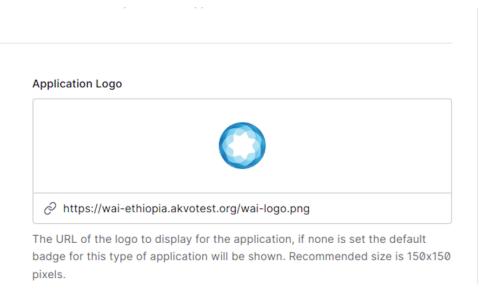


# 5. Select Settings Tab





## 6. Add application logo



**Note:** This application has pre-defined logo, the url of image is available in your installation once this up is up and running in your domain. (eg. https://your-domain.com/wai-logo.png)

#### 7. Change your-domain.com with your app-domain for all the field below

In some scenarios, Auth0 will need to redirect to your application's login page. This URI needs to point to a route in your application that should redirect to your tenant's /authorize endpoint. Learn more

#### Allowed Callback URLs

https://your-domain.org, http://localhost



After the user authenticates we will only call back to any of these URLs. You can specify multiple valid URLs by comma-separating them (typically to handle different environments like QA or testing). Make sure to specify the protocol (https://) otherwise the callback may fail in some cases. With the exception of custom URI schemes for native clients, all callbacks should use protocol https://. You can use Organization URL parameters in these URLs.

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#### Allowed Logout URLs

https://your-domain.org, https://your-domain.org/login, http://localhost, http://localhost/login



A set of URLs that are valid to redirect to after logout from Auth0. After a user logs out from Auth0 you can redirect them with the returnTo query parameter. The URL that you use in returnTo must be listed here. You can specify multiple valid URLs by comma-separating them. You can use the star symbol as a wildcard for subdomains (\*.google.com\*). Query strings and hash information are not taken into account when validating these URLs. Read more

information are not taken into account when validating these URLs. Read more about this at https://auth0.com/docs/authenticate/login/logout

#### Allowed Web Origins

https://your-domain.org, http://localhost

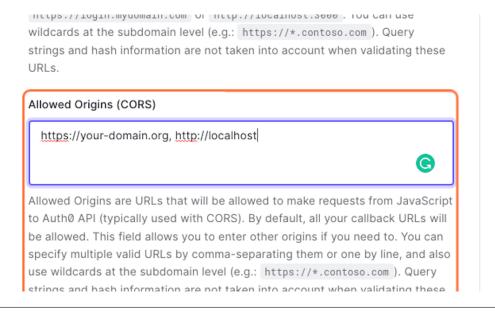


Comma-separated list of allowed origins for use with Cross-Origin

Authentication, Device Flow, and web message response mode, in the form of

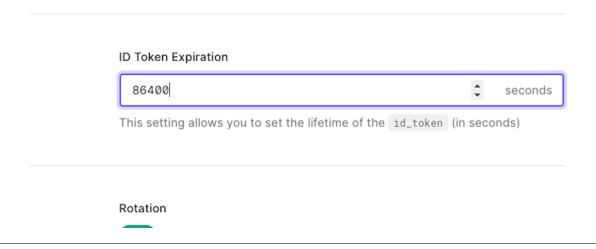
<scheme> "://" <host> [ ":" <port> ], such as

https://login.mydomain.com or http://localhost:3000 . You can use



# 8. Modify the ID Token Expiration

strings and nash information are not taken into account when validating these URLs.. You can use Organization URL placeholders in these URLs.



#### 9. Click Save Button

ettings

Save Changes

## 10. Select Connections Tab

plications

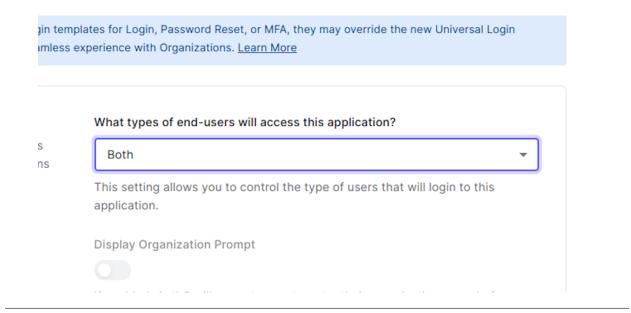
# vai-demo

Settings Addons Connections Organizations

re sources of users. They are categorized into Database, Social and Enterprise and can be shared amo

rname-Password-Authentication

# 11. Change below option field with Both



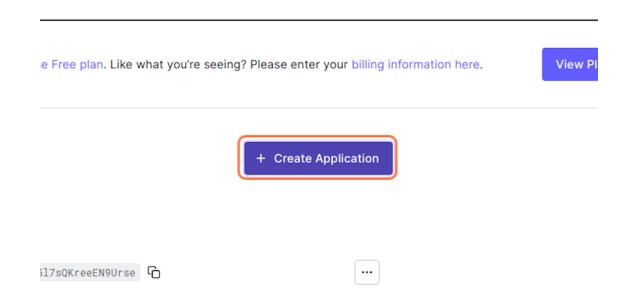
## 12. Click Save Changes

If enabled, Autho will prompt users to enter logging in. If disabled, you need to send the the appropriate Organization Login prompt

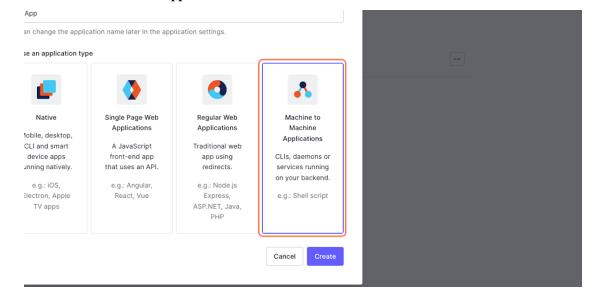
Save Changes

#### **Create New Backend Application**

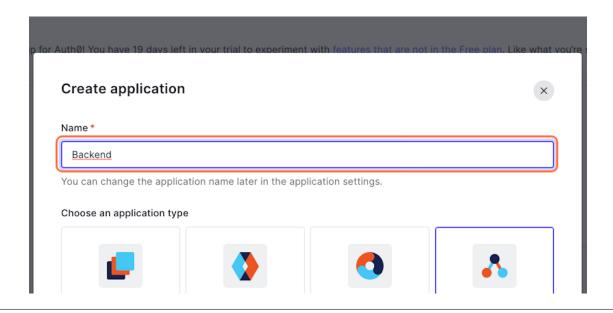
# 1. Click on Create Application



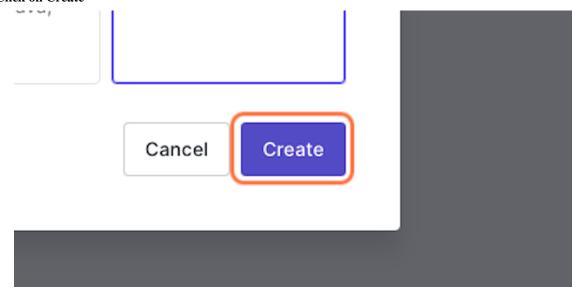
# 2. Select Machine to Machine Application



## 3. Rename the Application

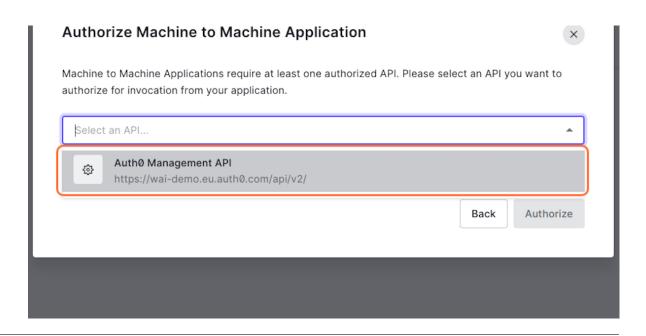


## 4. Click on Create



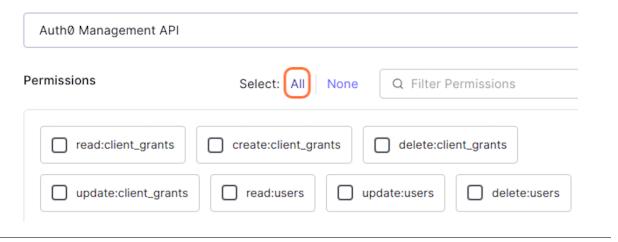
## 5. Click on option

Once you click create button, there will be a popup with dropdown selector to authorize this application. Please select Auth0 Management API

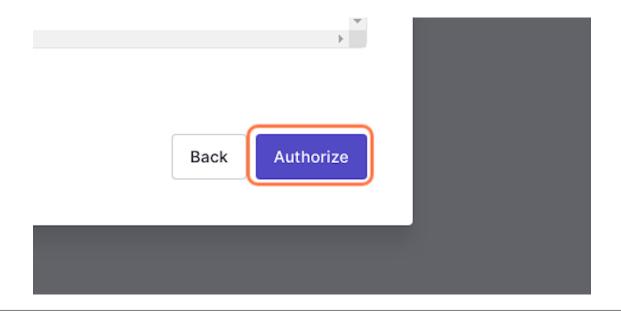


#### 6. Authorize All the Permissions

Machine to Machine Applications require at least one authorized API. Please select an API you authorize for invocation from your application.

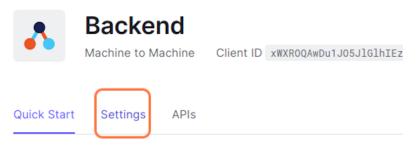


#### 7. Click on Authorize



## 8. Click on Settings





A Machine to Machine Application represents a program that interacts  $\nu$  script that would be granted access to consume a Zip Codes API. It's a

You can customize this documentation to any of your authorized APIs. 7

## 9. Change your-domain.com with your app-domain for all the field below

In some scenarios, Auth0 will need to redirect to your application's login page. This URI needs to point to a route in your application that should redirect to your tenant's /authorize endpoint. Learn more

#### Allowed Callback URLs

https://your-domain.org, http://localhost



After the user authenticates we will only call back to any of these URLs. You can specify multiple valid URLs by comma-separating them (typically to handle different environments like QA or testing). Make sure to specify the protocol (https://) otherwise the callback may fail in some cases. With the exception of custom URI schemes for native clients, all callbacks should use protocol https://. You can use Organization URL parameters in these URLs.

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#### Allowed Logout URLs

https://your-domain.org, https://your-domain.org/login, http://localhost, http://localhost/login



A set of URLs that are valid to redirect to after logout from Auth0. After a user logs out from Auth0 you can redirect them with the returnTo query parameter. The URL that you use in returnTo must be listed here. You can specify multiple valid URLs by comma-separating them. You can use the star symbol as a wildcard for subdomains (\*.google.com). Query strings and hash information are not taken into account when validating these URLs. Read more

information are not taken into account when validating these URLs. Read more about this at https://auth0.com/docs/authenticate/login/logout

# Allowed Web Origins

https://your-domain.org, http://localhost



Comma-separated list of allowed origins for use with Cross-Origin

Authentication, Device Flow, and web message response mode, in the form of

<scheme> "://" <host> [ ":" <port> ], such as

https://login.mydomain.com or http://localhost:3000 . You can use

wildcards at the subdomain level (e.g.: https://\*.contoso.com ). Query strings and hash information are not taken into account when validating these URLs.

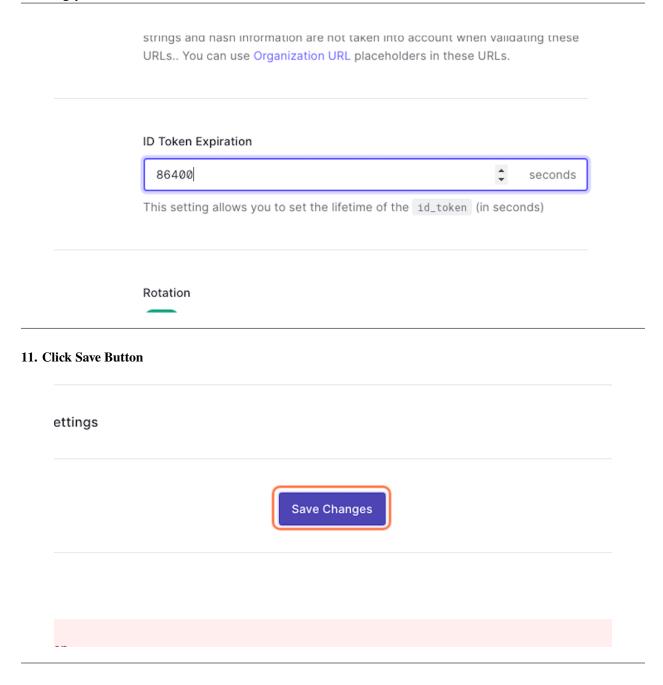
#### Allowed Origins (CORS)

https://your-domain.org, http://localhost



Allowed Origins are URLs that will be allowed to make requests from JavaScript to Auth0 API (typically used with CORS). By default, all your callback URLs will be allowed. This field allows you to enter other origins if you need to. You can specify multiple valid URLs by comma-separating them or one by line, and also use wildcards at the subdomain level (e.g.: https://\*.contoso.com). Query strings and hash information are not taken into account when validating these

#### 10. Modify the ID Token Expiration



#### **The Production Tentant**

Tenants tagged as Production are granted higher rate limits than tenants tagged as Development or Staging. To ensure Auth0 recognizes your production tenant, be sure to set your production tenant with the **production** flag in the Support Center.

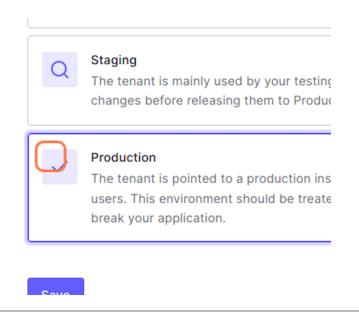
**Note:** Higher rate limits are applied to public cloud tenants tagged as Production with a paid subscription. See Auth0 Tenant Policy

## 1. Click Gear Icons

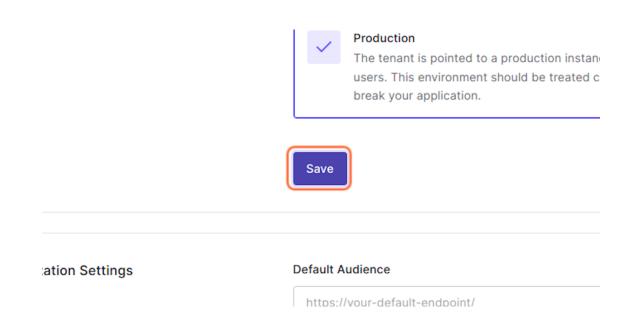


## 2. Select Production

s are applied to public cloud terraints iction with a paid subscription. Learn



#### 3. Click Save



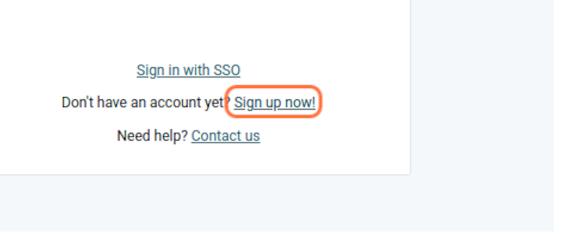
Back to Installation

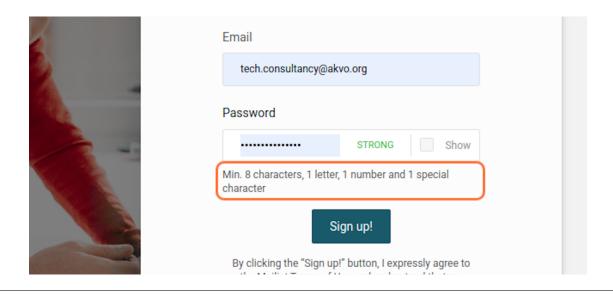
# 1.3.4 Mailjet Service

You need to have MAILJET account to manage the notification deliverability.

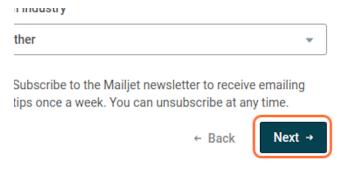
# **Create Mailjet Account**

## 1. Click on Sign up now!

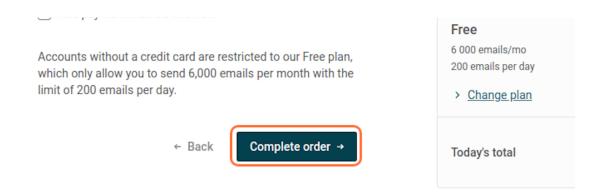




#### 2. Click on Next

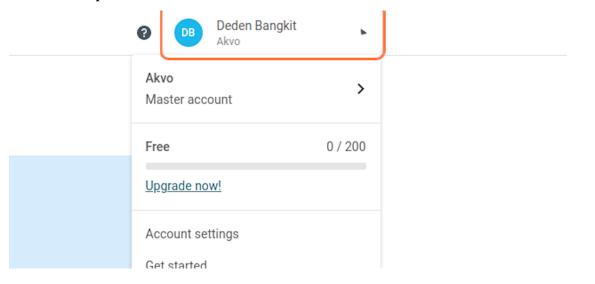


3. Click on Complete order then check your email for verification

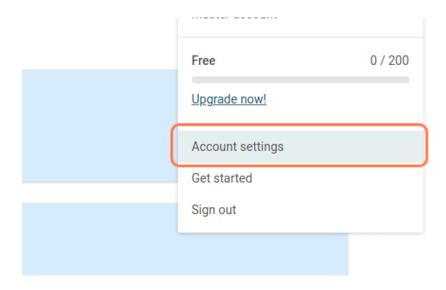


# **Generating API Key**

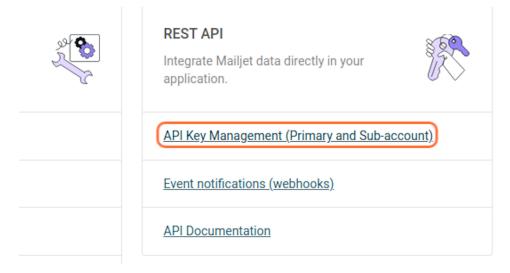
# 1. Click Account Dropdown



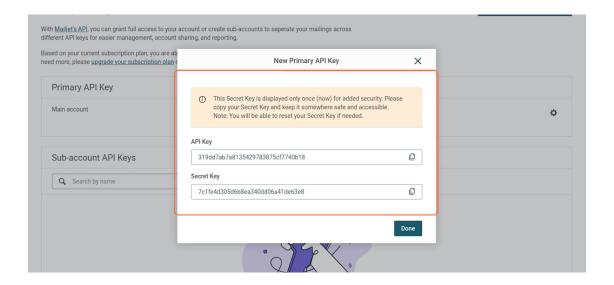
# 2. Click on Account settings



# 3. Click on API Key Management



# 4. Click on Generate Secret Key



# 1.4 Installation

# 1.4.1 Clone the Repository

git clone https://github.com/akvo/wai-sdg-portal.git

# 1.4.2 Environment Variable Setup

Install text editor to be able to edit .env file

```
sudo apt install nano
```

or

```
sudo apt install vim
```

Go to the repository directory, then edit the environment

```
cd wai-sdg-portal/deploy
vim .env
```

#### Example Environemnt:

```
POSTGRES_PASSWORD=postgres
WAI_DB_USER=yourname
WAI_DB_PASSWORD=sUpeRsTr0ngPa**word
INSTANCE_NAME=wai-demo
AUTH0_DOMAIN=your-domain.eu.auth0.com
AUTH0_CLIENT_ID=acad34xxxxxxxx
AUTH0_SECRET=938axxxxxxxxxxx
AUTH0_AUDIENCE=cdary8xxxxxxxx
```

(continues on next page)

(continued from previous page)

```
AUTHO_SPA_DOMAIN=5a2axxxxxxxxxxxx
AUTHO_SPA_CLIENT_ID=b821y8xxxxxxx
STORAGE_LOCATION=/data/storage
MAILJET_SECRET=093asbalxxxxxxxx
MAILJET_APIKEY=9acadlkbxxxxxxxx
WEBDOMAIN=https://your-domain.com
```

#### Note:

- Use Domain and Client ID field from your Auth0 SPA application for AUTH\_SPA\_DOMAIN and AUTH\_SPA\_CLIENT\_ID
- Use Domain, Secret and Client ID field from your Auth0 Backend application for AUTH\_DOMAIN, AUTH\_SECRET and AUTH\_CLIENT\_ID.
- For AUTHO\_AUDIENCE, Go to your **AuthO backend application**, click **APIs** Tab, expand **AuthO Management API**. Use the **Grant ID** field.

# 1.4.3 Run the Application

```
./install.sh
```

#### 1.4.4 Post-Installation

Once the app is started, we need to populate the database with the initial data set. The initial dataset are:

- · 1st Super Admin
- · 1st Organisation
- · Administration Levels Data

Run the database seeder:

```
docker compose exec backend ./seed.sh youremail@akvo.org "Your Full Name" "Your⊾ 

→Organisation"
```

#### Example:

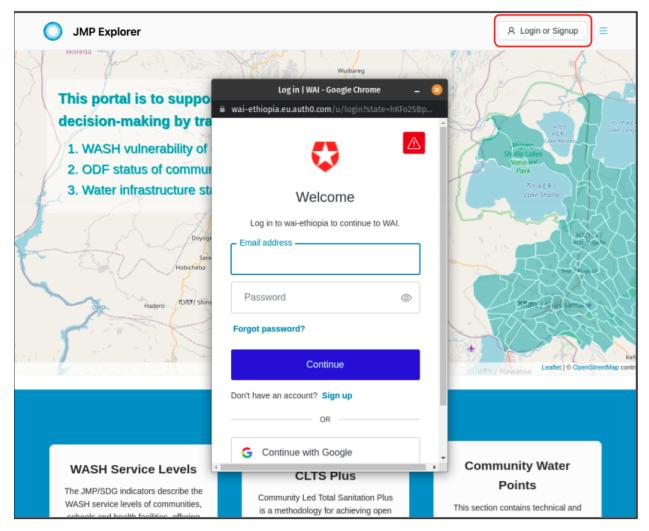
```
docker compose exec backend ./seed.sh youremail@akvo.org "Your Name" Akvo
```

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### **GETTING STARTED**

# 2.1 Log in

Before, you start looking around and going into deep, please logging in by clicking on the Login or Signup.



#### **CHAPTER**

### **THREE**

### **DATASETS**

Take a quick look at the datasets.

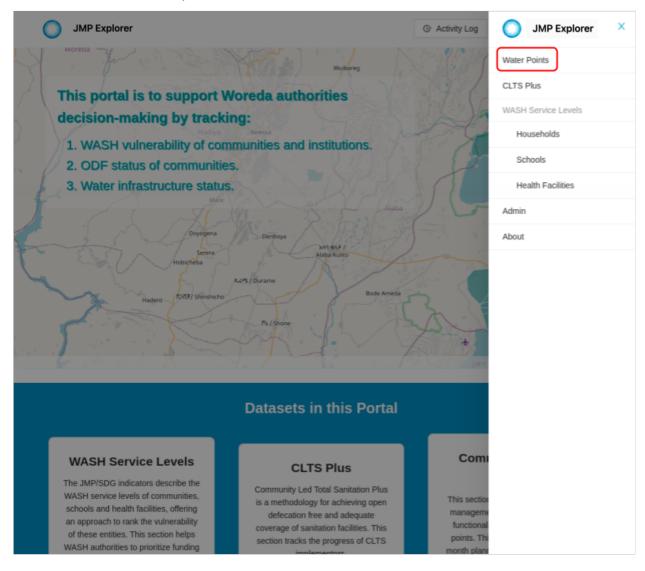
#### **Datasets in this Portal Community Water WASH Service Levels CLTS Plus Points** The JMP/SDG indicators describe the Community Led Total Sanitation Plus WASH service levels of communities, This section contains technical and is a methodology for achieving open schools and health facilities, offering management data, and tracks the defecation free and adequate an approach to rank the vulnerability coverage of sanitation facilities. This functionality of community water of these entities. This section helps points. This is useful for month to section tracks the progress of CLTS WASH authorities to prioritize funding month planning of maintenance and implementors. and resources to the most vulnerable. rehabilitation activities.

#### **Overview**



# 3.1 List of datasets

A list of datasets is shown once you click on the Menu button



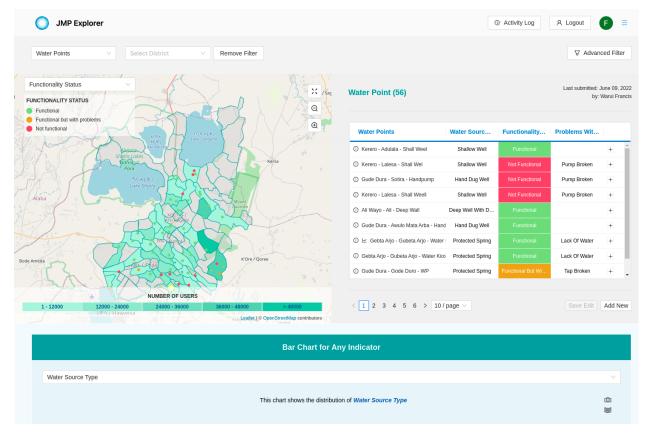
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#### **CHAPTER**

# **FOUR**

### **DATA**





# 4.1 Search

# 4.1.1 Selecting

- Filtering a data point by selecting name, district, sub-district and village
- You reset your search by clicking the **REMOVE FILTER** button.



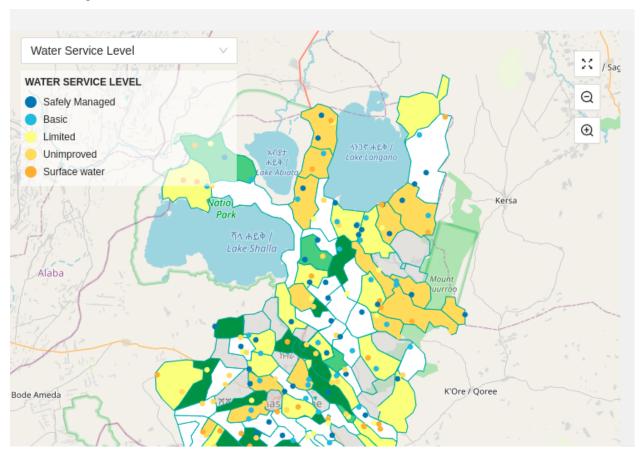
#### 4.1.2 Advanced search

If you wish to search in more advanced way, an Advanced filter button is clickable that shows an input select.



# **4.2 Maps**

- A map is on the page which shows all places, district, sub-district and village from where the data is collected.
- This map can be zoomed out or in



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### 4.2.1 Maps Legend

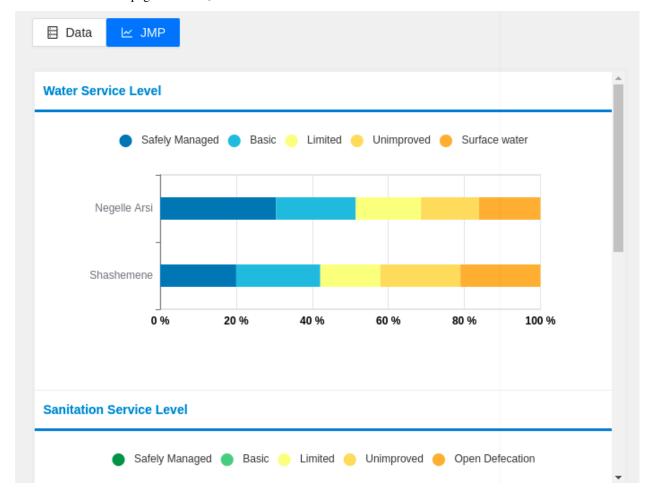
A legend that displays the level of data services is shown on the page under the map.



### 4.3 Chart data

#### 4.3.1 JMP

A chart is also on the page once the **JMP tab** is active

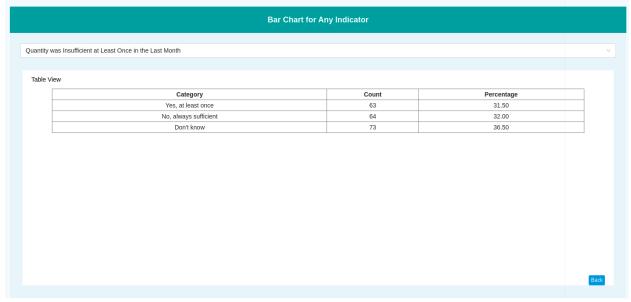


4.3. Chart data 39

### 4.3.2 Bar

- A disruption of a question is shown on a **Bar char**. To see this, you have to select a question.
- This bar chart can also be saved as an image by clickin on the SAVE IMAGE icon.
- If you would love to see the question value on a table, there is table icon that can be clicked to do so.





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**CHAPTER** 

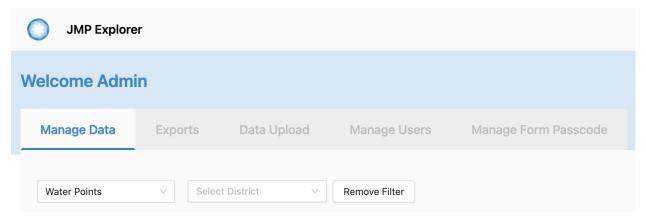
**FIVE** 

# **ADMIN PAGE**

# 5.1 Manage data

#### **5.1.1 Filter**

Searching data by - data point - District, sub-district and village - You can also reset your filter search.

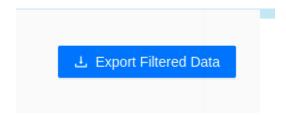


#### 5.1.2 Advanced filter

If you wish to search in a more advanced way, you click on the ADVANCED FILTER button.

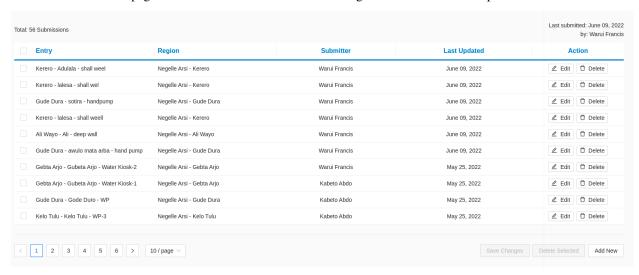


### 5.1.3 Export filtered data



#### 5.1.4 List of data

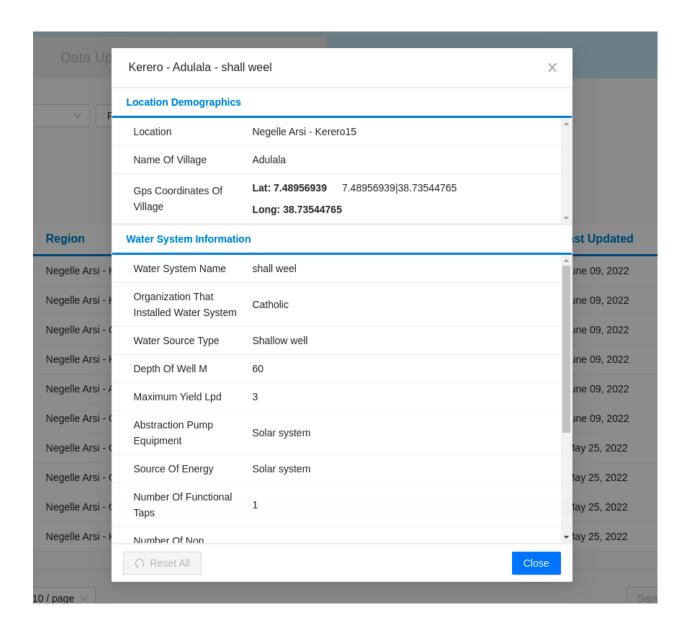
A list of data is on the page as a table which has - data name - Region - Submitter - Last updated - Action



### 5.1.5 Editing data

A data entry can be edited.

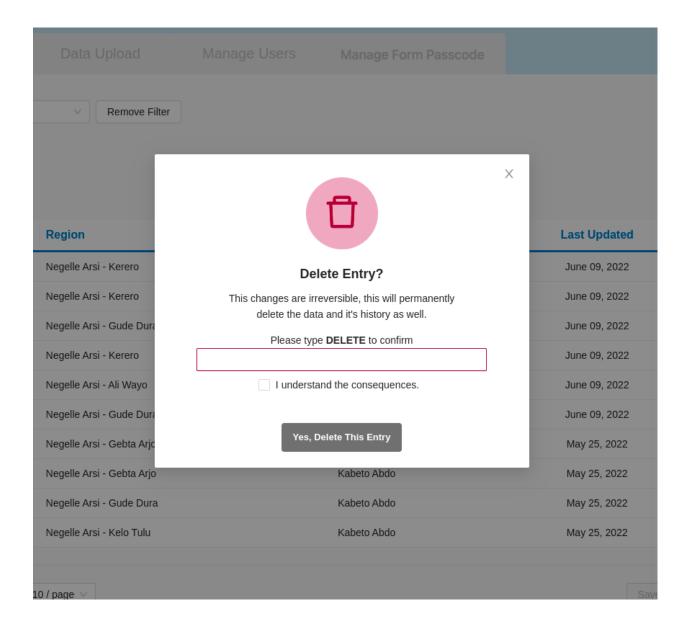
42



### 5.1.6 Delete Data

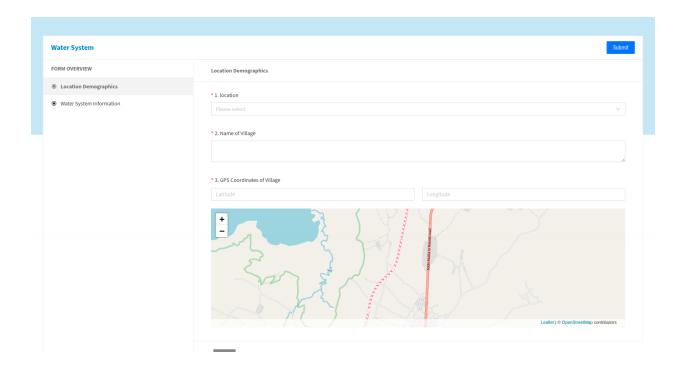
A data entry can be deleted.

5.1. Manage data 43



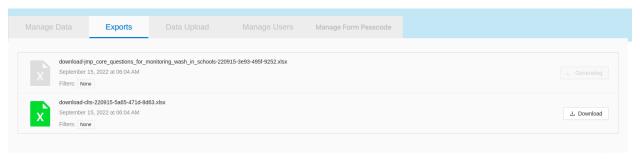
#### 5.1.7 Add New Data

You also can add a new data entry.



# **5.2 Export Data**

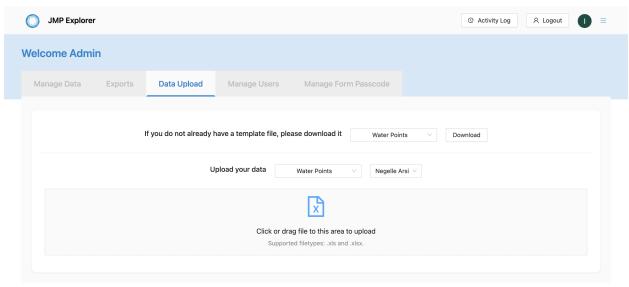
You can see a list of exported data entries that you can download.



5.2. Export Data 45

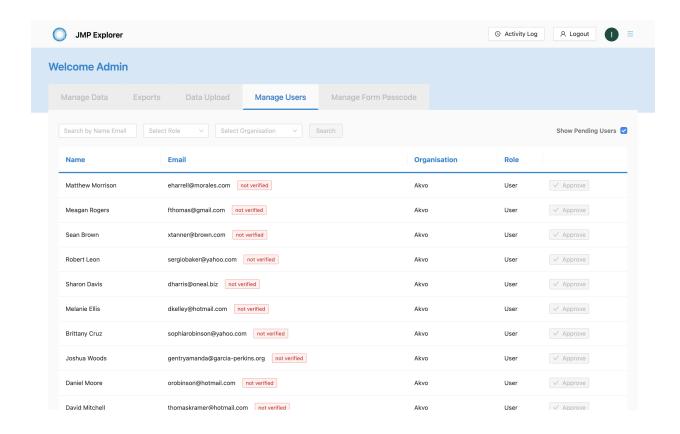
# 5.3 Upload Data

You can also upload a new data entry from your **file manager** or download existing data by clicking on the **Download** button.



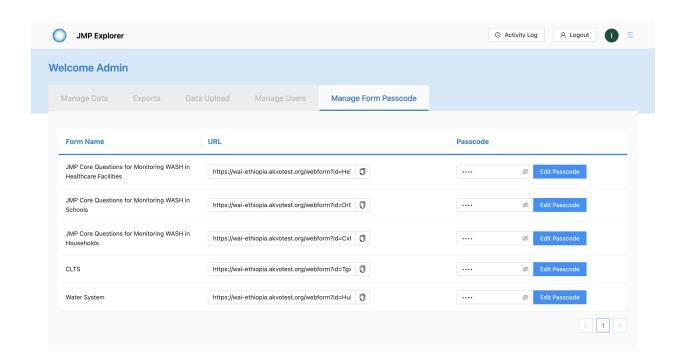
# **5.4 Manage users**

A list of users is displayed on the page with their: - Name - Email - Organisation - Role



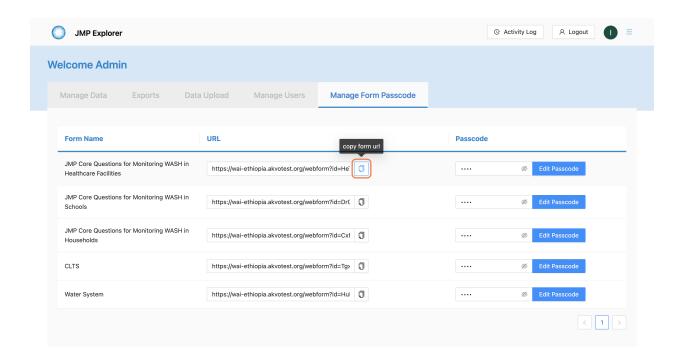
# 5.5 Manage form passcode

A list of form that accessable via URL and is displayed on the page with the following columns: - Form name - URL - Passcode (The text field is encrypted by default)



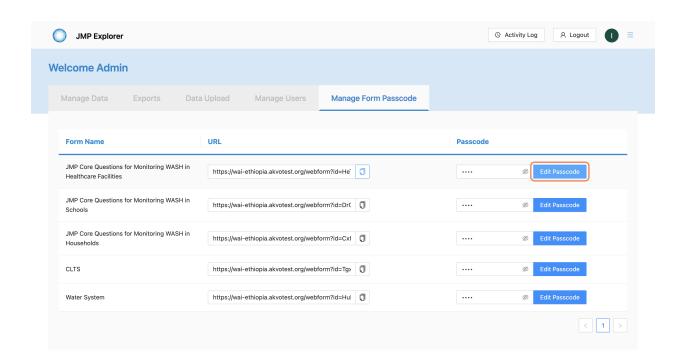
# **5.5.1 Copy URL**

The URL field has a copy functionality to get URL easily

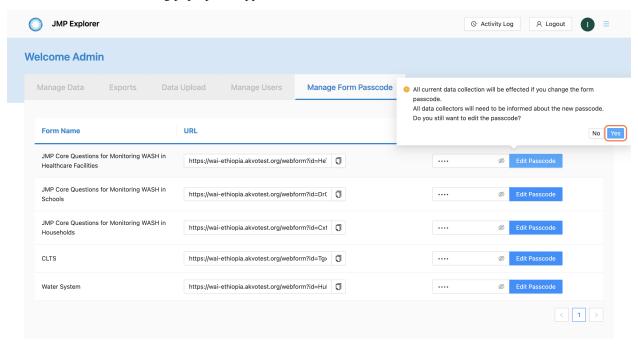


### 5.5.2 Edit Passcode

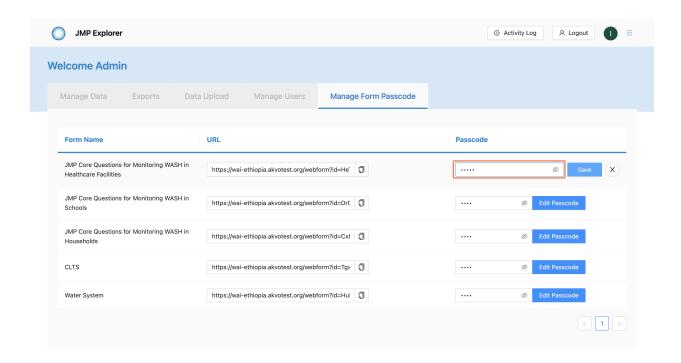
You can edit text field by clicking the Edit passcode button



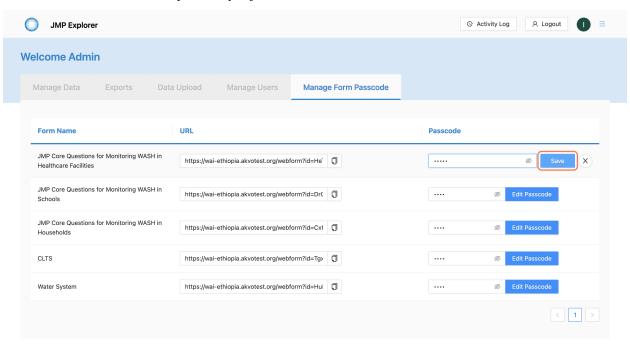
Once edit is clicked, a warning pop-up will appear to confirm the user



If you select yes, then the text field can be filled in with the new passcode. Otherwise, the text field will return readonly.



Click the save button to save the passcode you just created



**CHAPTER** 

SIX

### **DEVELOPMENT INSTALLATION**

# 6.1 Environment Setup

```
export WAI_AUTHO_DOMAIN="string_url"
export WAI_AUTHO_CLIENT_ID="string"
export WAI_AUTHO_SECRET="string"
export WAI_AUTHO_AUDIENCE="string"
export WAI_AUTHO_SECRET="string"
export WAI_AUTHO_SPA_DOMAIN="string_url"
export WAI_AUTHO_SPA_CLIENT_ID="string"
export INSTANCE_NAME="wai-demo"
```

# 6.2 Start the App

Once you have all the required environment ready, then run the App using:

• Run the application

```
export INSTANCE_NAME=ct-name>
docker compose up -d
```

• Stop

```
docker compose down
```

• Reset the app

```
docker compose down -v
```

**CHAPTER** 

**SEVEN** 

### **DATABASE SEEDER**

# 7.1 Config Requirements

Before you seed the baseline data, please make sure that you have all the required file in the following structure:

Folder Path: /backend/source/

```
/backend/source.

— project-name

— config.js
— config.min.js
— data
— organisation.csv
— forms
— 01-clts.json
— 02-health.json
— 03-hh.json
— 04-school.json
— 05-wp.json
— topojson.js
```

# 7.1.1 config.json

config.min.js is pre-generated file to merge visualisation config.js, topojson.js and menu.

### 7.1.2 forms.json

\*.json files inside forms folder is the form definition of a questionnaire which contains detail of forms including question group setting and question definition.

Example:

```
{
 "form": "JMP Core Questions for Monitoring WASH in Households",
 "id": 567420165,
 "question_groups": [
       "question_group": "Location Demographics",
       "questions": [
         {
           "question": "location",
           "order": 1,
           "required": true,
           "type": "administration",
           "meta": true
         },
         {
           "id": 554110154,
           "question": "Village",
           "order": 3,
           "meta": true,
           "type": "text",
           "required": true,
           "options": null
         },
         {
           "id": 554110155,
           "question": "GPS Coordinates of Household",
           "order": 4,
           "meta": true,
           "type": "geo",
           "required": true,
           "options": null
         }
       ]
     }
  ]
}
```

### 7.2 Seeder CLI

#### 7.2.1 Administration Level Seeder

docker compose exec backend python -m seeder.administration

### 7.2.2 Organisation Seeder

docker compose exec backend python -m seeder.organisation

### 7.2.3 Super Admin

docker compose exec backend python -m seeder.admin youremail@akvo.org "Your Name" Akvo

#### 7.2.4 Form Seeder

docker compose exec backend python -m seeder.form

#### 7.2.5 Seed Fake User

docker compose exec backend python -m seeder.fake\_user <number\_of\_user> Akvo

#### 7.2.6 Datapoint Seeder

docker compose exec backend python -m seeder.fake\_datapoint youremail@akvo.org <number\_  ${\scriptscriptstyle \hookrightarrow} of\_datapoints>$ 

7.2. Seeder CLI 57

### JMP LOGIC IMPLEMENTATION

JMP Logic implementation has been done by the AkvoResponseGrouper<sup>1</sup> library and we just need to create a category.json inside the source folder and place it in a specific instance.

For example, if we want to implement JMP logic on the Ethiopia instance, then category.json should be created on

```
backend

— source

— wai-ethiopia

— category.json
```

# 8.1 Properties

This section contains the properties that will be used in configuring the JMP logic in category.json.

### 8.1.1 Criteria's fields

Field	Туре	Description
name	String	Criteria name
form	Integer	Existing form ID in database
categories	Array of category	List of categories

# 8.1.2 Category's fields

Field	Туре	Description
name	String	Category name
questions	Array of question including the logic	List of existing questions and their logic

 $<sup>^{1}\</sup> AkvoResponseGrouper:\ https://pypi.org/project/AkvoResponseGrouper/$ 

### 8.1.3 Question & logic's fields

Field	Туре	Re-	Description
		quired	
id	Integer	Yes	Existing question ID in database.
text	String	No	Question description.
op-	Array of	Yes	Set list of options that will have intersections with the answer to the ques-
tions	string		tion.
other	Array of other	No	Another set of lists of options that don't have intersections in the <i>options</i> .
else	Object of else	No	Set category that has no intersections, either in <i>options</i> or <i>other</i> .

#### 8.1.4 Other's fields

Field	Туре	Re-	Description
		quired	
name	String	Yes	Category name
options	Array of string	Yes	Set list of options that will have intersections with the answer to the
			question
ques-	Array of ques-	Yes	List of existing questions and their logic and can be set empty of Array
tions	tion		

#### 8.1.5 Else's fields

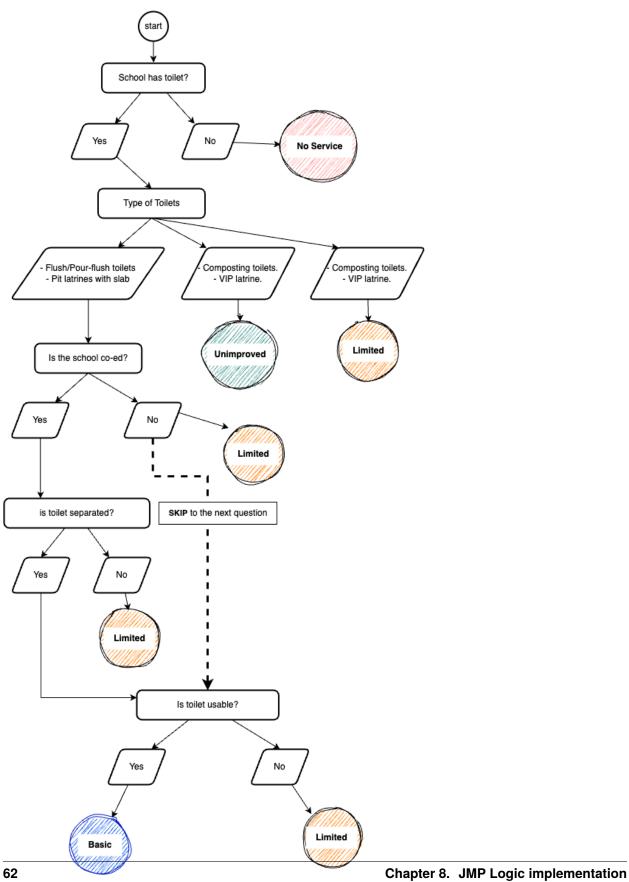
Field	Туре	Re-	Description
		quired	
name	String	No	Category name
ig-	Array of existing ques-	No	Set list of question IDs that can be skipped based on the intersections
nore	tion IDs		in the options

# 8.2 Example

In this section, we provide an example use case to demonstrate how to create a category.json file. Please note that the presented use case, "Sanitation," is intended for illustrative purposes only. While the example showcases the functionality and features of our library, it may not be an exact representation of real-world scenarios.

8.2. Example 61

# 8.2.1 Logic visualisation



### 8.2.2 JSON File (category.json)

```
Е
 {
   "name": "Sanitation Criteria",
    "form": 1,
    "categories": [
      {
        "name": "Basic",
        "questions": [
          {
              "id": 11,
              "text": "School has toilet?",
              "options": [
                  "Yes"
              ],
              "else": {
                  "name": "No service"
              }
          },
              "id": 12,
              "text": "Type of toilets",
              "options": [
                  "Flush/Pour-flush toilets",
                  "Pit latrines with slab"
              "other": [
                  {
                       "name": "Unimproved",
                       "options": [
                          "Composting toilets",
                           "VIP latrine"
                      ],
                       "questions": []
                  }
              ],
              "else": {
                  "name": "Limited"
              }
         },
              "id": 13,
              "text": "Is the school co-ed?",
              "options": [
                  "Yes"
              ],
              "else": {
                  "ignore": [
                      14
                  ]
              }
          },
                                                                              (continues on next page)
```

(continues on next page)

8.2. Example 63

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```
{
            "id": 14,
            "text": "is toilet separated?",
            "options": [
               "Yes"
            ],
            "else": {
                "name": "Limited"
            }
       },
        {
            "id": 15,
            "text: ":"Is toilet usable?",
            "options": [
                "Yes"
            "else": {
                "name": "Limited"
            }
        }
      ]
   }
 ]
}
```

### **CHAPTER**

# **NINE**

# **RUNNING TESTS**

# 9.1 Backend Test

docker-compose exec backend ./test.sh

# 9.2 Frontend Test

docker-compose exec frontend yarn test

### **CHAPTER**

# **TEN**

# **DATABASE SCHEMA**

# 10.1 List of Table

```
SELECT relname, relkind
FROM pg_class
WHERE relreplident = 'd'
AND relhasindex = true;
```

Table 1: List of Table

relname	relkind
alembic_version	r
administration	r
access	r
question_group	r
form	r
question	r
data	r
answer	r
organisation	r
jobs	r
log	r
option	r
history	r
user	r

# 10.2 Table Relationship

Table 2: List of Relationship

Schema	Name	Туре	Owner
public	access	table	wai
public	access_id_seq	sequence	wai
public	administration	table	wai
public	administration_id_seq	sequence	wai
public	alembic_version	table	wai
public	answer	table	wai
public	answer_id_seq	sequence	wai
public	answer_search	view	wai
public	data	table	wai
public	data_id_seq	sequence	wai
public	form	table	wai
public	form_id_seq	sequence	wai
public	history	table	wai
public	history_id_seq	sequence	wai
public	jobs	table	wai
public	jobs_id_seq	sequence	wai
public	log	table	wai
public	log_id_seq	sequence	wai
public	option	table	wai
public	option_id_seq	sequence	wai
public	organisation	table	wai
public	organisation_id_seq	sequence	wai
public	question	table	wai
public	question_group	table	wai
public	question_group_id_seq	sequence	wai
public	question_id_seq	sequence	wai
public	score_view	view	wai
public	user	table	wai
public	user_id_seq	sequence	wai

# 10.3 Table Details

#### 10.3.1 Administration

Table 3: List of Relationship

pos	col-	data_type	udt_name	column_default	is_nullable
	umn_name				
1	id	integer	int4	nextval('administration_id_seq'::rego	12186)
2	parent	integer	int4		YES
3	name	character	varchar		YES
		varying			

#### 10.3.2 User

Table 4: User Table

pos	column_name	data_type	column_default	is_nullable
1	id	integer	nextval('user_id_seq'::regclas	s)NO
2	email	character varying		YES
3	active	boolean		YES
4	role	USER-DEFINED		YES
5	created	timestamp without time		YES
		zone		
6	organisation	integer		YES
7	name	character varying		YES
8	ts_vector	tsvector		YES
9	man-	boolean	false	NO
	age_form_passcode			

### 10.3.3 User Access

Table 5: Access Table

pos	column_name	data_type	column_default	is_nullable
1	id	integer	nextval('access_id_seq'::regclass)	NO
2	user	integer		YES
3	administration	integer		YES

10.3. Table Details 69

### 10.3.4 Organisation

Table 6: Organisation Table

pos	col-	data_type	column_default	is_nullable
	umn_name			
1	id	integer	nextval('organisation_id_seq'::regcla	S <b>X</b> O
2	name	character varying		YES
3	type	USER-DEFINED		YES
4	created	timestamp without time		YES
		zone		

#### 10.3.5 Form

Table 7: Form Table

pos	column_name	data_type	column_default	is_nullable
1	id	integer	nextval('form_id_seq'::regclass)	NO
2	name	character varying		YES
3	description	text		YES
4	default_language	character varying		YES
5	languages	ARRAY		YES
6	translations	ARRAY		YES
7	version	double precision		YES

### 10.3.6 Question Group

```
SELECT ordinal_position as pos, column_name, data_type, column_default, is_
nullable
FROM information_schema.columns
WHERE table_name = 'question_group'
ORDER BY ordinal_position;
```

Table 8: Question Group Table

pos	col-	data_type	column_default	is_nullable
	umn_name			
1	id	integer	nextval('question_group_id_seq'::regclass)	NO
2	order	integer		YES
3	name	character vary-		YES
		ing		
4	form	integer		YES
5	description	text		YES
6	repeatable	boolean	false	YES
7	repeat_text	character vary-		YES
		ing		
8	translations	ARRAY		YES

#### 10.3.7 Question

```
SELECT ordinal_position as pos, column_name, data_type, column_default, is___nullable
```

FROM information\_schema.columns
WHERE table\_name = 'question'

ORDER BY ordinal\_position;

Table 9: Question Table

pos	column_name	data_type	column_default	is_nullable
1	id	integer	nextval('question_id_seq'::regclass)	NO
2	order	integer		YES
3	name	character varying		YES
4	form	integer		YES
5	meta	boolean		NO
6	type	USER-DEFINED		YES
7	question_group	integer		YES
8	required	boolean	true	NO
9	rule	jsonb		YES
10	dependency	ARRAY		YES
11	tooltip	jsonb		YES
12	translations	ARRAY		YES
13	api	jsonb		YES
14	addons	jsonb		YES

# 10.3.8 Question Option

```
\begin{tabular}{ll} \textbf{SELECT} & ordinal\_position & \textbf{as} & pos, & \textbf{column\_name}, & data\_type, & column\_default, & is\_ \\ & \rightarrow nullable \\ \end{tabular}
```

FROM information\_schema.columns

WHERE table\_name = 'option'

ORDER BY ordinal\_position;

10.3. Table Details 71

Table 10: Question Option Table

pos	column_name	data_type	column_default	is_nullable
1	id	integer	nextval('option_id_seq'::regclass)	NO
2	order	integer		YES
3	name	character varying		YES
4	question	integer		YES
5	color	character varying		YES
6	score	integer		YES
7	code	character varying		YES
8	translations	ARRAY		YES

#### 10.3.9 Data

SELECT ordinal\_position as pos, column\_name, data\_type, column\_default, is\_ 
→nullable

FROM information\_schema.columns

WHERE table\_name = 'data'
ORDER BY ordinal\_position;

Table 11: Data Table

pos	col-	data_type	column_default	is_nullable
	umn_name			
1	id	integer	nextval('data_id_seq'::regclass)	NO
2	name	character varying		YES
3	form	integer		YES
4	administration	integer		YES
5	geo	ARRAY		YES
6	created_by	integer		YES
7	updated_by	integer		YES
8	created	timestamp without time	CURRENT_TIMESTAMP	YES
		zone		
9	updated	timestamp without time		YES
		zone		

#### 10.3.10 Data Answer

Table 12: Data Answer Table

pos	col-	data_type	column_default	is_nullable
	umn_name			
1	id	integer	nextval('answer_id_seq'::regclass	) NO
2	question	integer		YES
3	data	integer		YES
4	value	double precision		YES
5	text	text		YES
6	options	ARRAY		YES
7	created_by	integer		YES
8	updated_by	integer		YES
9	created	timestamp without time	CURRENT_TIMESTAMP	YES
		zone		
10	updated	timestamp without time		YES
		zone		

# 10.3.11 Data History

Table 13: Data Answer Table

pos	col-	data_type	column_default	is_nullable
	umn_name			
1	id	integer	nextval('history_id_seq'::regclass	) NO
2	question	integer		YES
3	data	integer		YES
4	value	double precision		YES
5	text	text		YES
6	options	ARRAY		YES
7	created_by	integer		YES
8	updated_by	integer		YES
9	created	timestamp without time	CURRENT_TIMESTAMP	YES
		zone		
10	updated	timestamp without time		YES
		zone		

10.3. Table Details 73

#### 10.3.12 Jobs

Table 14: Jobs Table

pos	col-	data_type	column_default	is_nullable
	umn_name			
1	id	integer	nextval('jobs_id_seq'::regclass)	NO
2	type	USER-DEFINED		YES
3	status	USER-DEFINED	'pending'::jobstatus	YES
4	payload	text		NO
5	info	jsonb		YES
6	attempt	integer	0	YES
7	created_by	integer		NO
8	created	timestamp without time	CURRENT_TIMESTAMP	YES
		zone		
9	available	timestamp without time		YES
		zone		

# 10.3.13 Logs

Table 15: Log Table

pos	col-	data_type	column_default	is_nullable
	umn_name			
1	id	integer	nextval('log_id_seq'::regclass)	NO
2	user	integer		YES
3	message	text		YES
4	at	timestamp without time	CURRENT_TIMESTAMP	YES
		zone		
5	jobs	integer		YES

#### **ELEVEN**

#### LIST OF SERVICES

```
** Services
#+NAME: Services
#+begin_src sh :results verbatim output :exports both
docker compose ps
#+end_src
#+RESULTS: Services
: NAME
                                 IMAGE
→ COMMAND
                           SERVICE
                                                                   STATUS
                                               CREATED
→PORTS
: wai-sdg-portal-backend-1
                                 python:3.8.5
⊶dev.sh"
                                            4 hours ago
                                                                Up 4 hours
                        backend
: wai-sdg-portal-db-1
                                 postgres:12-alpine
→"docker-entrypoint.s..." db
                                                 4 hours ago
                                                                     Up 4 hours
\rightarrow 0.0.0.0:5432->5432/tcp, :::5432->5432/tcp
: wai-sdg-portal-frontend-1
                                 akvo/akvo-node-18-alpine:20220923.084347.0558ee6
                                                                                     "run-
⊶as-user.sh ./st..."
                       frontend
                                            4 hours ago
                                                                Up 4 hours
: wai-sdg-portal-mainnetwork-1
                                alpine:3.14.0
→"tail -f /dev/null"
                          mainnetwork
                                               4 hours ago
                                                                   Up 4 hours
-0.0.0:3000->3000/tcp, :::3000->3000/tcp, 0.0.0:5050->5050/tcp, :::5050->5050/tcp, 0.
\rightarrow 0.0.0:8000->8000/tcp, :::8000->8000/tcp
: wai-sdg-portal-pgadmin-1
                                 dpage/pgadmin4:5.7
⊶entrypoint.sh"
                         pgadmin
                                             4 hours ago
                                                                 Up 4 hours
                                 python:3.8.5
: wai-sdg-portal-worker-1
→worker.sh"
                       worker
                                            4 hours ago
                                                                Up 4 hours
** Container Detail
*** Backend
#+NAME: Backend Processes
#+begin_src sh :exports both
docker compose top backend \mid tail -n +2 \mid head -n -1
#+end_src
#+RESULTS: Backend Processes
| UID | PID | PPID | C | STIME | TTY | TIME | CMD
              Ι
                                                                           (continues on next page)
```

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```
| root | 94628 | 94577 | 0 | 12:12 | ? | 00:00:00 | bash
                                                                           | ./dev.sh 🚨
                        | root | 95594 | 94628 | 3 | 12:12 | ?
                                        | 00:08:17 | /usr/local/bin/python | /usr/local/
→bin/uvicorn | main:app | --reload
                                                            | --port | 5000
| root | 95595 | 95594 | 0 | 12:12 | ?
                                        | 00:00:00 | /usr/local/bin/python | -c
                       | multiprocessing.resource_tracker | import | main;main(4) |
                        1
| root | 95596 | 95594 | 0 | 12:12 | ?
                                        | 00:00:49 | /usr/local/bin/python | -c
              | from | multiprocessing.spawn
                                                           | import | spawn_main; |
spawn_main(tracker_fd=5, | pipe_handle=7) | --multiprocessing-fork |
**** Commands
#+NAME: Backend Commands
#+begin_src sh :results verbatim :exports both
docker compose exec backend ./seed.sh
#+end_src
#+RESULTS: Backend Commands
: This script require more than 0 argument/s
: Example: ./test.sh dev@akvo.org "My Name" "My Organisation"
#+NAME: Seeder
#+begin_src sh :results verbatim :exports both
docker compose exec backend cat ./seed.sh | grep seeder. | sed 's/#\ //g'
#+end src
#+RESULTS: Seeder
     python -m seeder.administration
     python -m seeder.admin "$@"
:
     python -m seeder.fake_user 30 "$3"
     python -m seeder.form
     python -m seeder.datapoint "$1"
*** Frontend
**** Processes
#+NAME: Frontend Processes
#+begin_src sh :exports both
docker compose -f docker-compose.yml top frontend | tail -n +2 | head -n -1
#+end_src
#+RESULTS: Frontend Processes
| UID | PID | PPID | C | STIME | TTY |
                                             TIME | CMD
| root | 94620 | 94559 | 0 | 12:12 | ?
                                        | 00:00:00 | bash
                                                                         | ./start.sh 👅
| root | 94820 | 94620 | 0 | 12:12 | ?
                                        | 00:00:03 | node
                                                                          /opt/yarn-v1.
\rightarrow22.19/bin/yarn.js
                                      | start |
```

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```
| root | 94841 | 94820 | 0 | 12:12 | ?
                                        | 00:00:00 | /usr/local/bin/node | /app/node_
                                         | start |
→modules/.bin/react-scripts
| root | 94849 | 94841 | 0 | 12:12 | ? | 00:00:21 | /usr/local/bin/node | /app/node_
→modules/react-scripts/scripts/start.js |
**** Commands
#+NAME: Frontend Commands
#+begin_src sh :results verbatim :exports both
docker compose exec frontend yarn run
#+end_src
#+RESULTS: Frontend Commands
#+begin_example
yarn run v1.22.19
info Commands available from binary scripts: acorn, ansi-html, autoprefixer,
→browserslist, browserslist-lint, cross-env, cross-env-shell, css-blank-pseudo, css-has-
→pseudo, css-prefers-color-scheme, cssesc, detect, detect-port, detective, ejs, u
→escodegen, esgenerate, eslint, eslint-config-prettier, esparse, esvalidate, he, html-
→minifier-terser, import-local-fixture, is-docker, jake, jest, js-yaml, jsesc, json5,
→loose-envify, lz-string, mime, mkdirp, multicast-dns, nanoid, nmtree, node-which,
→parser, prettier, react-scripts, regjsparser, remarkable, resolve, rimraf, rollup,
→sass, semver, sha.js, svgo, synp, tailwind, tailwindcss, terser, topo2geo, topomerge, __
→topoquantize, uuid, webpack, webpack-dev-server, yarn-audit-fix
info Project commands
   - build
     react-scripts build
   - eject
     react-scripts eject
      eslint --config .eslintrc.json src --ext .js,.jsx
   - prettier
     prettier --check src
   - start
     react-scripts start
   - test
      react-scripts test --updateSnapshot --transformIgnorePatterns "node_modules/(?!
→d3|d3-geo|d3-array|internmap|delaunator|robust-predicates|react-leaflet)/"
   - test:ci
      CI=true react-scripts test --watchAll=false --coverage --transformIgnorePatterns
→"node_modules/(?!d3|d3-geo|d3-array|internmap|delaunator|robust-predicates)/"
Done in 0.02s.
#+end_example
*** Worker
#+NAME: Worker Processes
#+begin_src sh :exports both
docker compose top worker | tail -n +2 | head -n -1
#+end src
#+RESULTS: Worker Processes
```

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(continued from previous page) | UID | PID | PPID | C | STIME | TTY | TIME | CMD | root | 94704 | 94679 | 0 | 12:12 | ? | 00:00:00 | bash | ./worker. ⇔sh  $\hookrightarrow$ | root | 95588 | 94704 | 3 | 12:12 | ? | 00:08:19 | /usr/local/bin/python | /usr/local/ →bin/uvicorn | worker:worker | --reload | --port | 5001 | root | 95590 | 95588 | 0 | 12:12 | ? | 00:00:00 | /usr/local/bin/python | -c | multiprocessing.resource\_tracker | import | main; main(4)\_ | from | root | 95591 | 95588 | 0 | 12:12 | ? | 00:00:55 | /usr/local/bin/python | -c | multiprocessing.spawn | import | spawn\_main; 🚨 → | spawn\_main(tracker\_fd=5, | pipe\_handle=7) | --multiprocessing-fork | \*\*\* Database #+NAME: Database Processes #+begin\_src sh :exports both docker compose top db | tail -n +2 | head -n -1 #+end\_src #+RESULTS: Database Processes | UID | PID | PPID | C | STIME | TTY | TIME | CMD 1 | 70 | 94342 | 94316 | 0 | 12:12 | ? | 00:00:00 | postgres | | 70 | 94635 | 94342 | 0 | 12:12 | ? | 00:00:00 | postgres: | checkpointer | 94636 | 94342 | 0 | 12:12 | ? | 00:00:00 | postgres: | background | 70 | | writer 👅 94637 | 94342 | 0 | 12:12 | ? l 70 l | 00:00:00 | postgres: | walwriter | 70 | 94638 | 94342 | 0 | 12:12 | ? | 00:00:00 | postgres: | autovacuum →launcher | 70 | 94639 | 94342 | 0 | 12:12 | ? 00:00:00 | postgres: | stats | 70 | 94640 | 94342 | 0 | 12:12 | ? | 00:00:00 | postgres: | logical →replication | launcher | | 70 | 95628 | 94342 | 0 | 12:12 | ? | 00:00:00 | postgres: | wai l wai | 172.20.0.3(38228) | idle | | 70 | 95629 | 94342 | 0 | 12:12 | ? | 00:00:02 | postgres: | wai | wai\_ ⊶demo | 172.20.0.3(38234) | idle | | 70 | 95642 | 94342 | 0 | 12:12 | ? | 00:00:00 | postgres: | wai | wai\_ | 172.20.0.3(38242) | idle | | 70 | 103242 | 94342 | 0 | 12:17 | ? | 00:00:00 | postgres: | wai | wai\_ | 172.20.0.3(36900) | idle | ⊶demo | 70 | 103243 | 94342 | 0 | 12:17 | ? | 00:00:00 | postgres: | wai | wai\_ ⊶demo | 172.20.0.3(36916) | idle | | 70 | 103244 | 94342 | 0 | 12:17 | ? | 00:00:00 | postgres: | wai | wai\_ -demo | 172.20.0.3(36926) | idle |

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```
*** Dev
**** PG Admin
#+NAME: PG Admin Processes
#+begin_src sh :exports both
docker compose top pgadmin | tail -n +2 | head -n -1
#+end_src
#+RESULTS: PG Admin Processes
              PID | PPID | C | STIME | TTY |
                                              TIME | CMD
                                                                              \hookrightarrow
                  \hookrightarrow
                     | 5050
          | 94608 | 94537 | 0 | 12:12 | ? | 00:00:03 | /venv/bin/python3
→/venv/bin/gunicorn | --timeout | 86400 | --bind | [::]:5050 | -w | 1 | --threads | 25_
→ | --access-logfile | - | -c | gunicorn_config.py | run_pgadmin:app |
root
         | 94812 | 94608 | 0 | 12:12 | ? | 00:00:00 | /usr/libexec/postfix/master | _
→-₩
                                   \hookrightarrow
                     - 1
--1
\hookrightarrow
                   | 5050
          | 94905 | 94608 | 0 | 12:12 | ? | 00:00:09 | /venv/bin/python3
→/venv/bin/gunicorn | --timeout | 86400 | --bind | [::]:5050 | -w | 1 | --threads | 25_
→ | --access-logfile | - | -c | gunicorn_config.py | run_pgadmin:app |
| systemd+ | 425845 | 94812 | 0 | 15:32 | ? | 00:00:00 | pickup
                                                                              ں ا
                  ⇔−1
                                            \hookrightarrow
                   **** Main Network
#+NAME: Main Network Processes
#+begin_src sh :exports both
docker compose top mainnetwork | tail -n +2 | head -n -1
#+end_src
#+RESULTS: Main Network Processes
| UID | PID | PPID | C | STIME | TTY |
                                          TIME | CMD | |
| root | 94393 | 94363 | 0 | 12:12 | ? | 00:00:00 | tail | -f | /dev/null |
```