

# Installation

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This installation guide requires that the Backend is available to the User.

1. Download this project
2. Navigate to the project root
3. Open a CLI
4. Install required packages using `npm install`
5. Run `ng serve` and wait for the process to finish
6. The application is now available on `localhost:4200`

To retrieve data, start the Backend Server by starting the `AaaS.Api`. This project is part of the course SWK project.

## Overview

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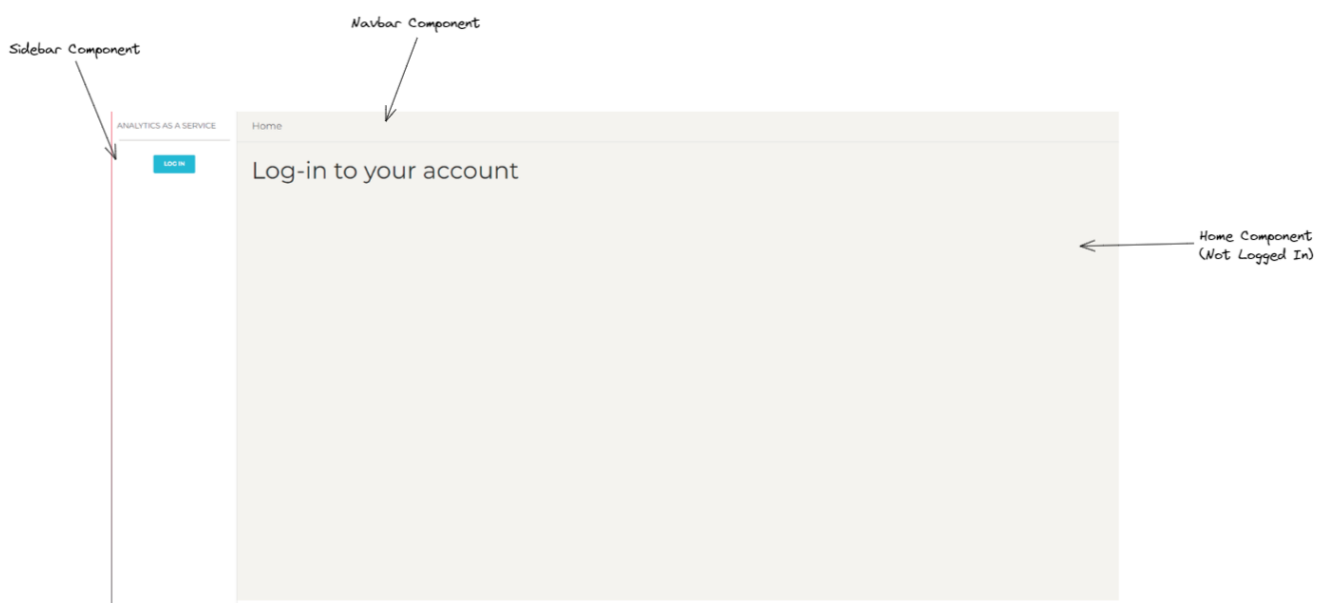
The Website is built with different components. In general, the website has a navigation bar (`Sidebar Component`) to the side, which is used to navigate between the main 4 pages:

- Home
- Metrics
- Logs
- Detectors

The top `Navbar Component` always shows the current Page.

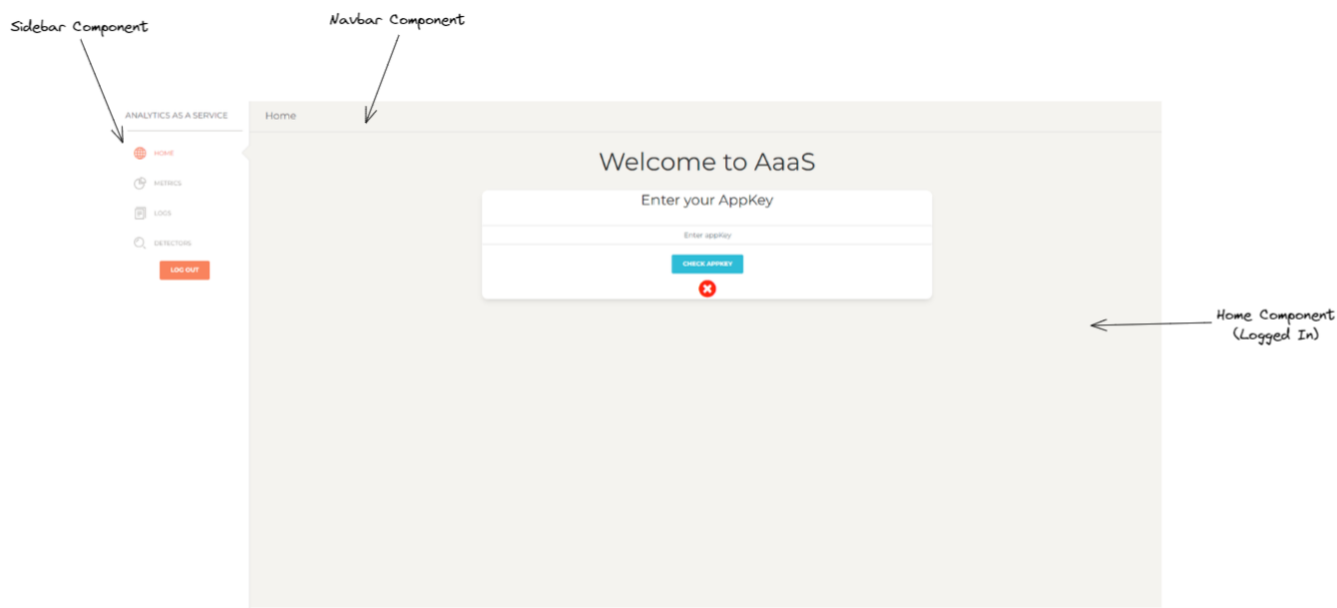
## Home Page

### Not Logged in



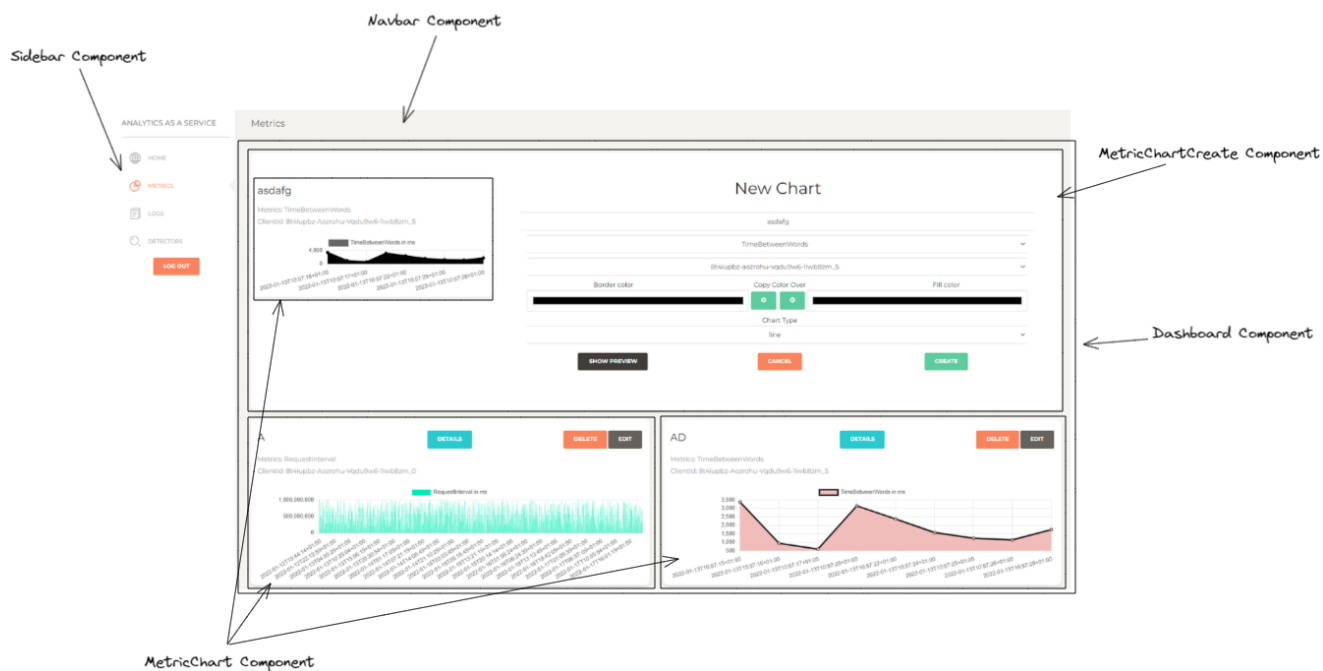
The user has to log in via an OAuth Server. The `Log In` Button will redirect them to the site.

## Logged in



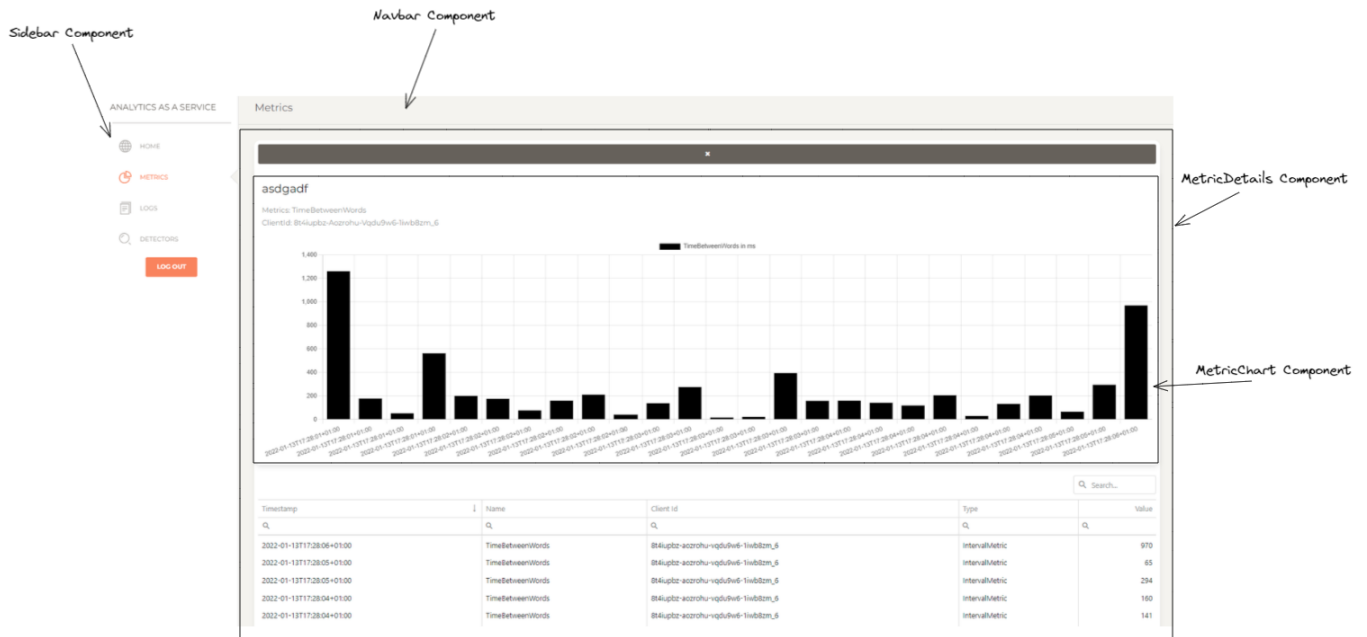
When logged in, the User has to provide a valid **AppKey** in order to use the other services. All Pages beside **Home** are unavailable until a valid **AppKey** is provided.

## Metrics Page



The **Metric** Page offers an overview to the Users metrics using **Chart.js**. Charts are stored in the browsers **localStorage**.

## Metric Details



Each chart offers a detailpage, in which the chart is shown in large and all metrics displayed in the chart are shown in a list. The chart is **scrollable** and **zoomable**.

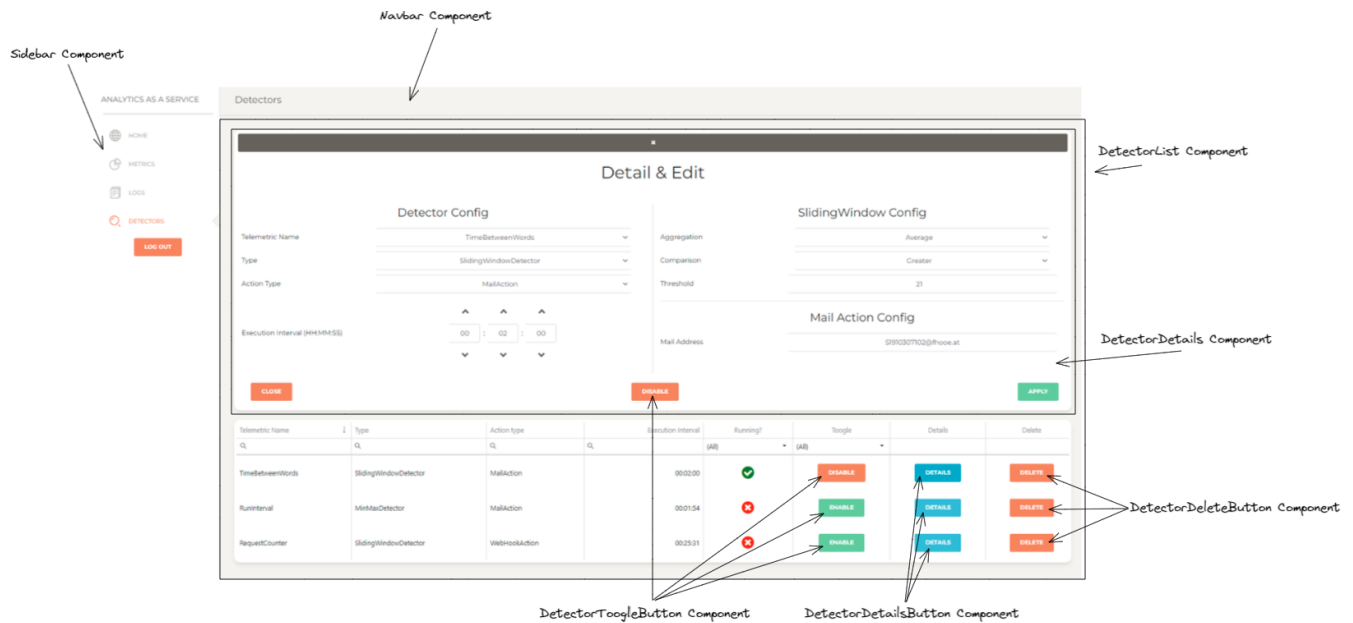
## Logs

The screenshot shows the 'Logs' page. It features a search bar at the top and a table of log entries. The table has columns: Timestamp, Name, Client id, Category, and Message. The logs are sorted by timestamp in descending order.

Timestamp	Name	Client id	Category	Message
2022-01-17T20:39:19+01:00	FloorCapacity	8k4upbz-aczrhu-vqduhw-1wblzm_1	Warning	This does not work
2022-01-17T20:39:09+01:00	Thickness	8k4upbz-aczrhu-vqduhw-1wblzm_4	Warning	Not enough permissions
2022-01-17T20:39:04+01:00	RequestInterval	8k4upbz-aczrhu-vqduhw-1wblzm_3	Trace	The endpoint is unknown
2022-01-17T20:38:54+01:00	RunInterval	8k4upbz-aczrhu-vqduhw-1wblzm_1	Warning	Operation timed out
2022-01-17T20:38:49+01:00	Temperature	8k4upbz-aczrhu-vqduhw-1wblzm_0	Trace	Operation timed out
2022-01-17T20:38:44+01:00	ErrorCounter	8k4upbz-aczrhu-vqduhw-1wblzm_4	Trace	Operation timed out
2022-01-17T20:38:39+01:00	StepCounter	8k4upbz-aczrhu-vqduhw-1wblzm_3	Trace	Could not be completed
2022-01-17T20:38:24+01:00	RequestCounter	8k4upbz-aczrhu-vqduhw-1wblzm_0	Warning	The network address is invalid
2022-01-17T20:37:34+01:00	MessageCounter	8k4upbz-aczrhu-vqduhw-1wblzm_0	Error	The object universal unique identifier (UUID) has already been registered
2022-01-17T20:37:29+01:00	Temperature	8k4upbz-aczrhu-vqduhw-1wblzm_4	Warning	This should not appear
2022-01-17T20:37:14+01:00	ErrorCounter	8k4upbz-aczrhu-vqduhw-1wblzm_1	Warning	You have no mana
2022-01-17T20:36:39+01:00	IdInterval	8k4upbz-aczrhu-vqduhw-1wblzm_4	Trace	The RPC protocol sequence is invalid
2022-01-17T20:36:34+01:00	Temperature	8k4upbz-aczrhu-vqduhw-1wblzm_3	Trace	The endpoint cannot be created
2022-01-17T20:36:09+01:00	StepCounter	8k4upbz-aczrhu-vqduhw-1wblzm_3	Warning	The string binding is invalid
2022-01-17T20:35:54+01:00	ErrorCounter	8k4upbz-aczrhu-vqduhw-1wblzm_0	Trace	Magistrate is not an instrument
2022-01-17T20:35:14+01:00	StepInterval	8k4upbz-aczrhu-vqduhw-1wblzm_2	Error	The string binding is invalid
2022-01-17T20:34:39+01:00	Temperature	8k4upbz-aczrhu-vqduhw-1wblzm_0	Error	Could not be completed
2022-01-17T20:34:34+01:00	Altitude	8k4upbz-aczrhu-vqduhw-1wblzm_4	Trace	This should not appear
2022-01-17T20:33:19+01:00	RequestInterval	8k4upbz-aczrhu-vqduhw-1wblzm_4	Warning	This should not appear
2022-01-17T20:33:09+01:00	RunInterval	8k4upbz-aczrhu-vqduhw-1wblzm_2	Error	Not enough permissions
2022-01-17T20:33:04+01:00	StepCounter	8k4upbz-aczrhu-vqduhw-1wblzm_1	Warning	No
2022-01-17T20:32:59+01:00	IdInterval	8k4upbz-aczrhu-vqduhw-1wblzm_0	Error	The string binding is invalid
2022-01-17T20:32:54+01:00	ErrorCounter	8k4upbz-aczrhu-vqduhw-1wblzm_4	Warning	The string binding is invalid
2022-01-17T20:32:49+01:00	RunInterval	8k4upbz-aczrhu-vqduhw-1wblzm_3	Error	This does not work

The **Log** Page offers a list of the Users logs. This list has a search-component, which filters the logs for a given string, which is then applied on all fields. All fields are sortable and filterable on their own.

## Detectors



The **Detector** Page offers a list of the Users detectors. This list is fully sortable and filterable. It offers buttons for:

- Enabling/Disabling the detector
- Deleting the detector
- Opening the detailview of the detector

In the detailview, the properties of the detector can be viewed and changed.

## Components

### Dashboard

```
<dashboard-cmp></dashboard-cmp>
```

### Metric Chart

```
<app-metric-chart [chartInfo]="..." [showButtons]="..."
  (deleteChartEvent)="..." (openDetailsEvent)="..."
  (editChartEvent)="...">
</app-metric-chart>
```

- [chartInfo]: Information for the chart, see **Metric Chart**
- [showButtons]: bool, whether the buttons of the chart should be shown
- (deleteChartEvent): EventEmitter that emits when the **delete** button is pressed and sends the **chartInfo** of the chart this Event belongs to

- (openDetailsEvent): EventEmitter that emits when the **details** button is pressed
- (editChartEvent): EventEmitter that emits when the **edit** button is pressed and sends the **chartInfo** of the chart this Event belongs to

## Metric Chart Create

```
<app-metric-chart-create [chartInfo]="..."  
                        (editEvent)="..." (createdEvent)="..." (cancelCreateEvent)="...">  
</app-metric-chart-create>
```

- [chartInfo]: Information for the chart, if this component is used to edit a chart, see **Metric Chart**
- (editEvent): EventEmitter that emits when the **edit** button of this component is pressed and sends the name of the chart before the edit and the new **chartInfo** for that chart
- (createdEvent): EventEmitter that emits when the **create** button of this component is pressed and sends the **chartInfo** of the chart created
- (cancelCreateEvent): EventEmitter that emits when the **cancel** button of this component is pressed

## Metric Details

```
<app-metric-details [chartInfo]="..." [metrics]="..."  
                  (closeEvent)="...">  
</app-metric-details>
```

- [chartInfo]: Information for the chart, see **Metric Chart**
- [metrics]: List of metrics for the chart
- (closeEvent): EventEmitter that emits when the **x** button of this component is pressed

## Logs

```
<logs-cmp></logs-cmp>
```

## Logs Search

```
<app-logs-search (logsFetched)="..."></app-logs-search>
```

- (logsFetched): EventEmitter that emits when this component has retrieved a filtered list of logs and sends these logs

## Detector List

```
<app-detector-list></app-detector-list>
```

## Detector Toogle Button

```
<app-detector-toggle-button [detectorId]="..." [state]="..."  
    (toggledEventEmitter)="...">  
</app-detector-toggle-button>
```

This button is used to enable/disable a detector.

- [detectorId]: Id of the detector that this button refers to
- [state]: bool that tells the initial state of this button
- (toogledEventEmitter): EventEmitter that emits when the button is pressed and sends the id of the detector and the new state

## Detector Details Button

```
<app-detector-details-button [detectorId]="..."  
    (openDetailsEventEmitter)="...">  
</app-detector-details-button>
```

- [detectorId]: Id of the detector that this button refers to
- (openDetailsEventEmitter): EventEmitter that emits when the button is pressed and sends the id of the detector

## Detector Delete Button

```
<app-detector-details-button [detectorId]="..."  
    (deleteEventEmitter)="...">  
</app-detector-details-button>
```

- [detectorId]: Id of the detector that this button refers to
- (deleteEventEmitter): EventEmitter that emits when the button is pressed and sends the id of the detector

## Detector Details

```
<app-detector-details [detector]="..."
                      (closeEventEmitter)="..."
                      (editedEventEmitter)="..."
                      (createdEventEmitter)="...">
</app-detector-details>
```

This component is used as a detailpage, for editing and for creating a detector.

- [detector]: Detector that is displayed in this component, can be ignored if the component is used to create a new detector
- (closeEventEmitter): EventEmitter that emits when the **close** button is pressed
- (editedEventEmitter): EventEmitter that emits when the **apply** button is pressed and sends the updated detector
- (createdEventEmitter): EventEmitter that emits when the **create** button is pressed and sends the created detector