

Suraksha Vyuha: User Manual

Preparation for running surakshavyuha.

Basic Hardware requirements

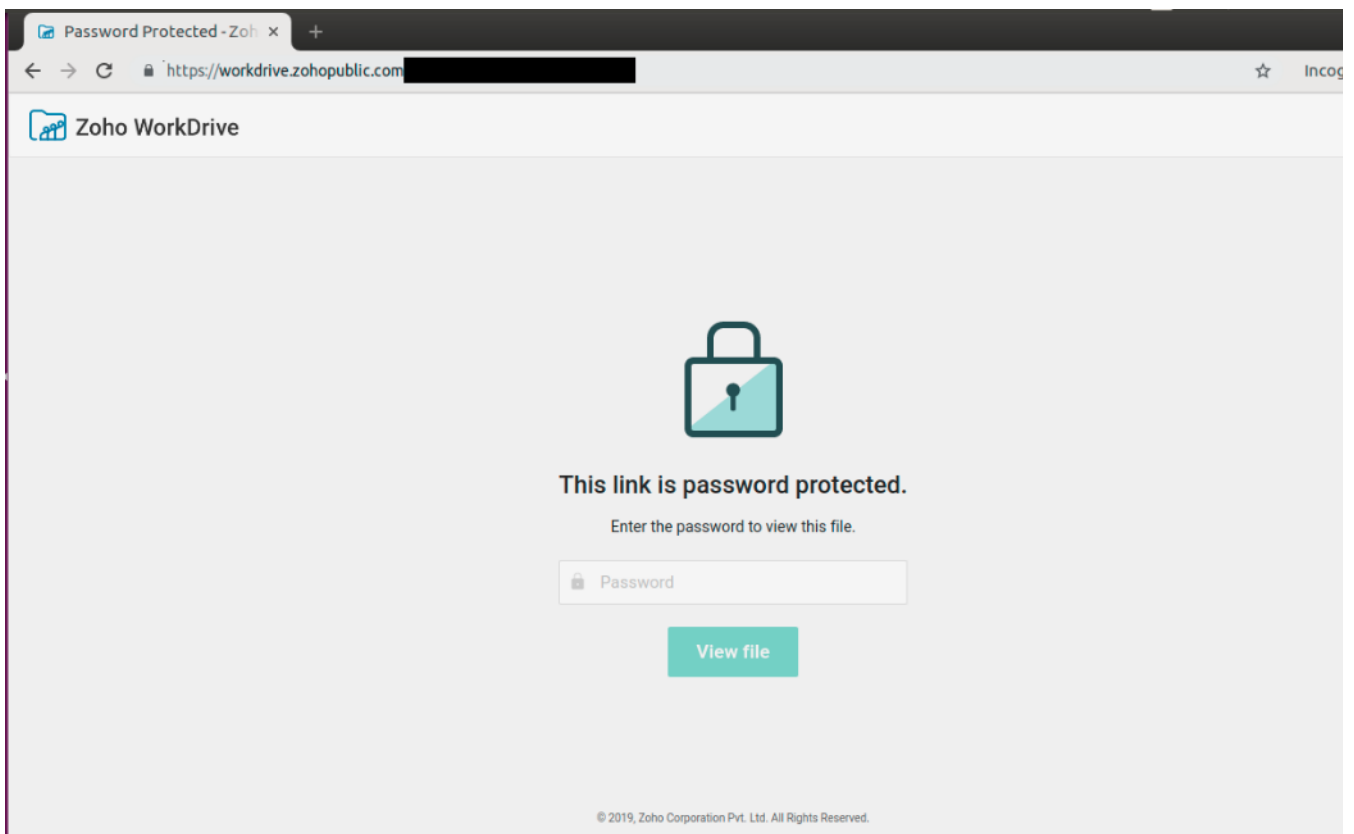
1. Intel 7th generation i7 CPU (with 8 cores)
2. 8 GB RAM minimum
3. 512 GB Hard Disk

Software requirements

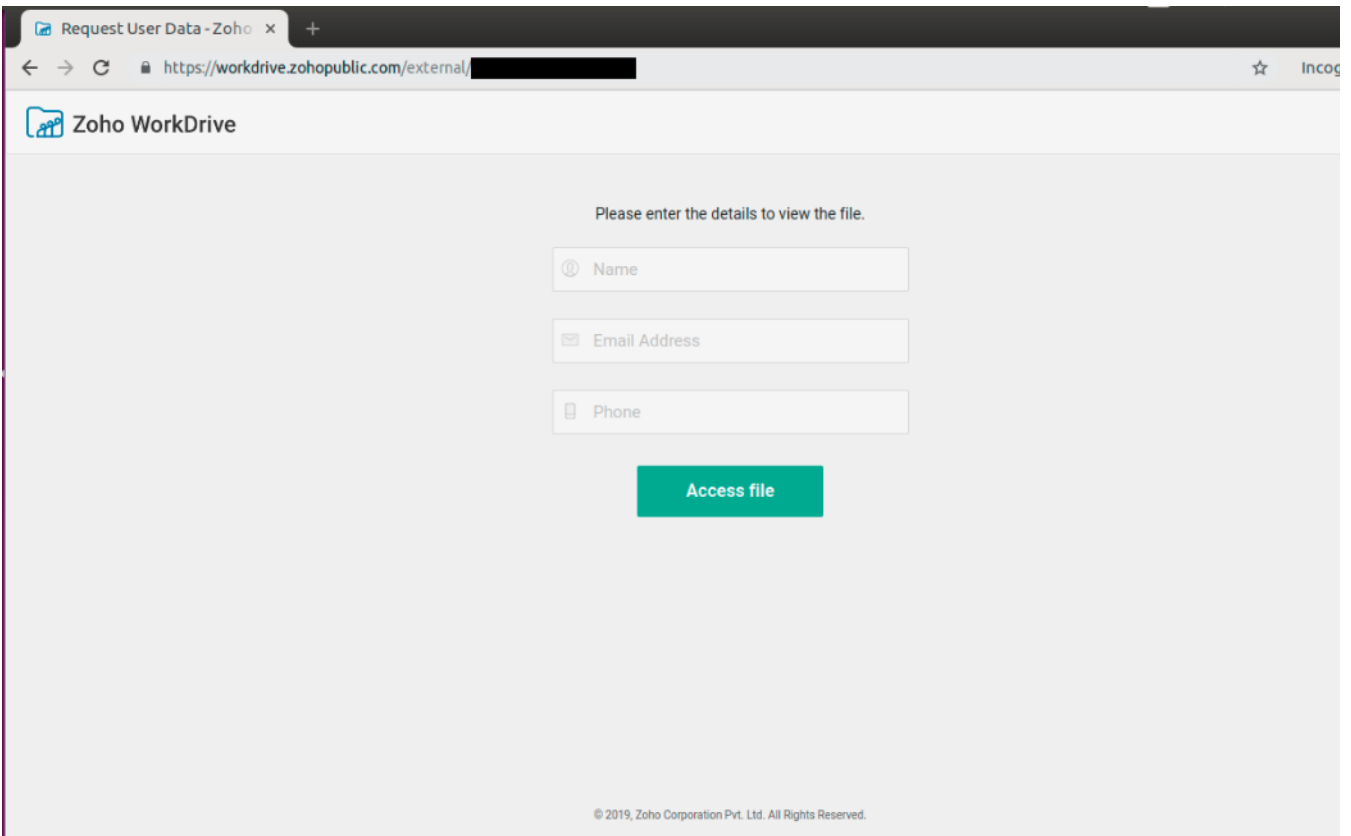
1. Install Ubuntu 16.04 Desktop.
2. Update the Firefox web Browser to the latest version. (`sudo apt-get install firefox`)
3. Install docker. (Steps can be found on docker website: <https://docs.docker.com/install/linux/docker-ce/ubuntu/>)

Download Surakshavyuha Installer

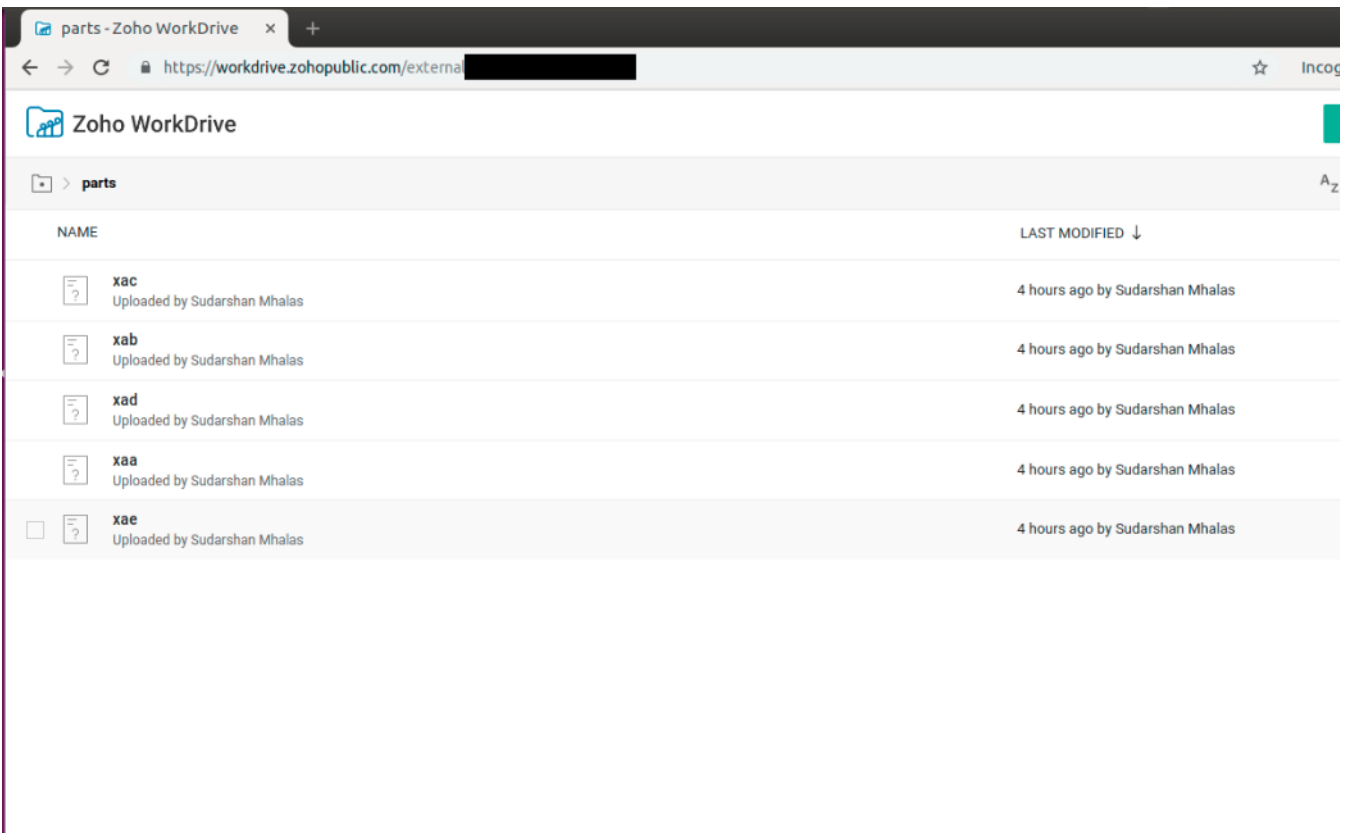
Download link and password to access the link will be communicated in a separate email.
The download link when opened will look as follows:



Clicking the download link will open a page similar to what is shown above.
Enter the password which is shared, and click, "View file".



The next page will ask for a few details, as shown above. Fill in the required information and click on, "Access file".



Select and download one file at a time.

Prepare the surakshavyuha archive from the downloaded files.

The files have the name xaa, xab, xac, xad. They are parts of a zip file. We need to join them using the linux command - cat.

1. Join them using the command :

```
cat xa* > sv_base.tgz
```

sv_base.tgz is a filename. The above command will create a zip file of the given name of around 3.7 GB in size.

Execution time : Around 10 minutes

2. Now unzip this zip file using the command:

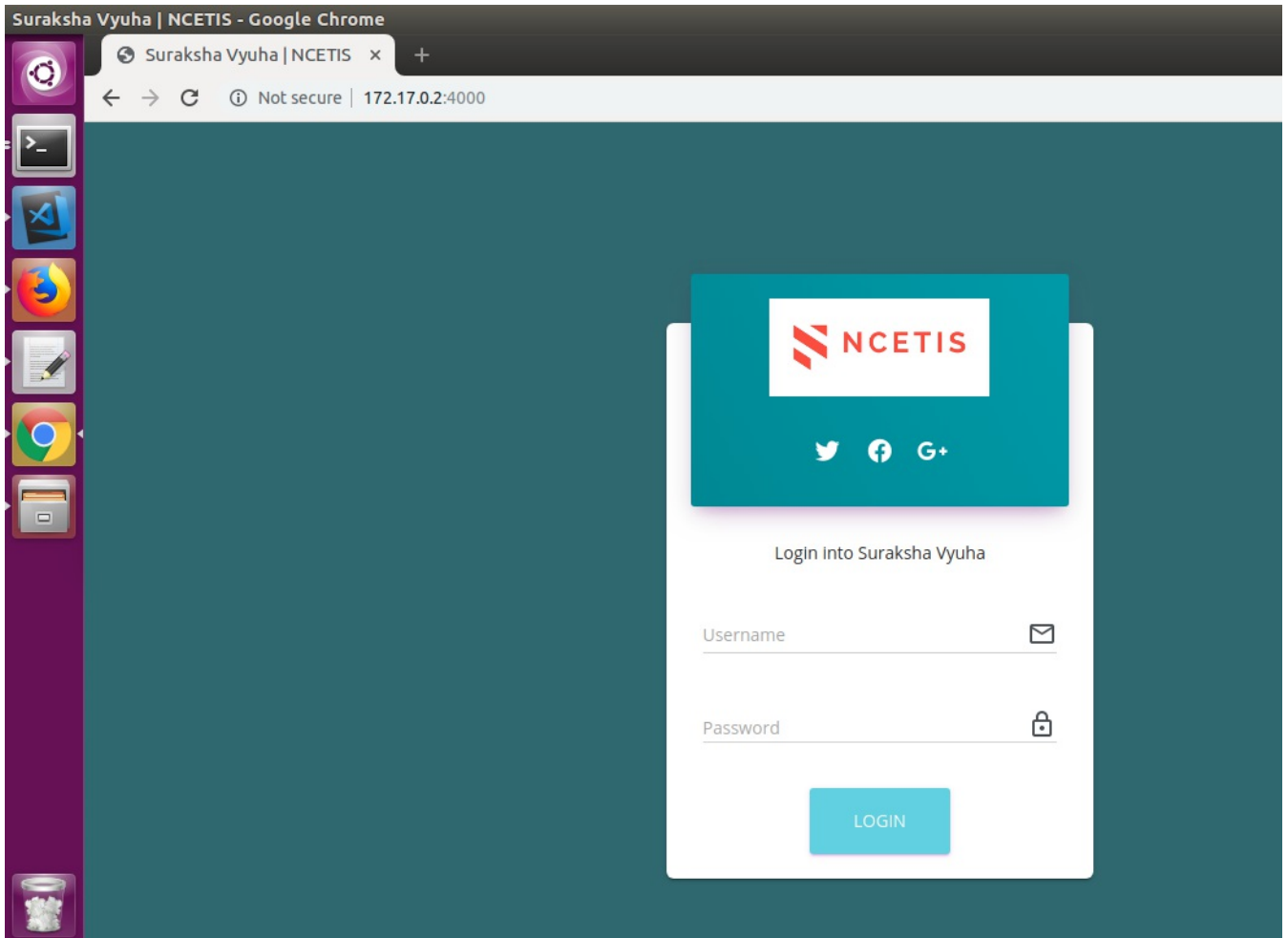
```
tar -xvf sv_base.tgz
```

Execution time : Around 10 minutes

3. The above command will create an archive file by the name **svbaseimage.tar** of around 8.6 GB in size.

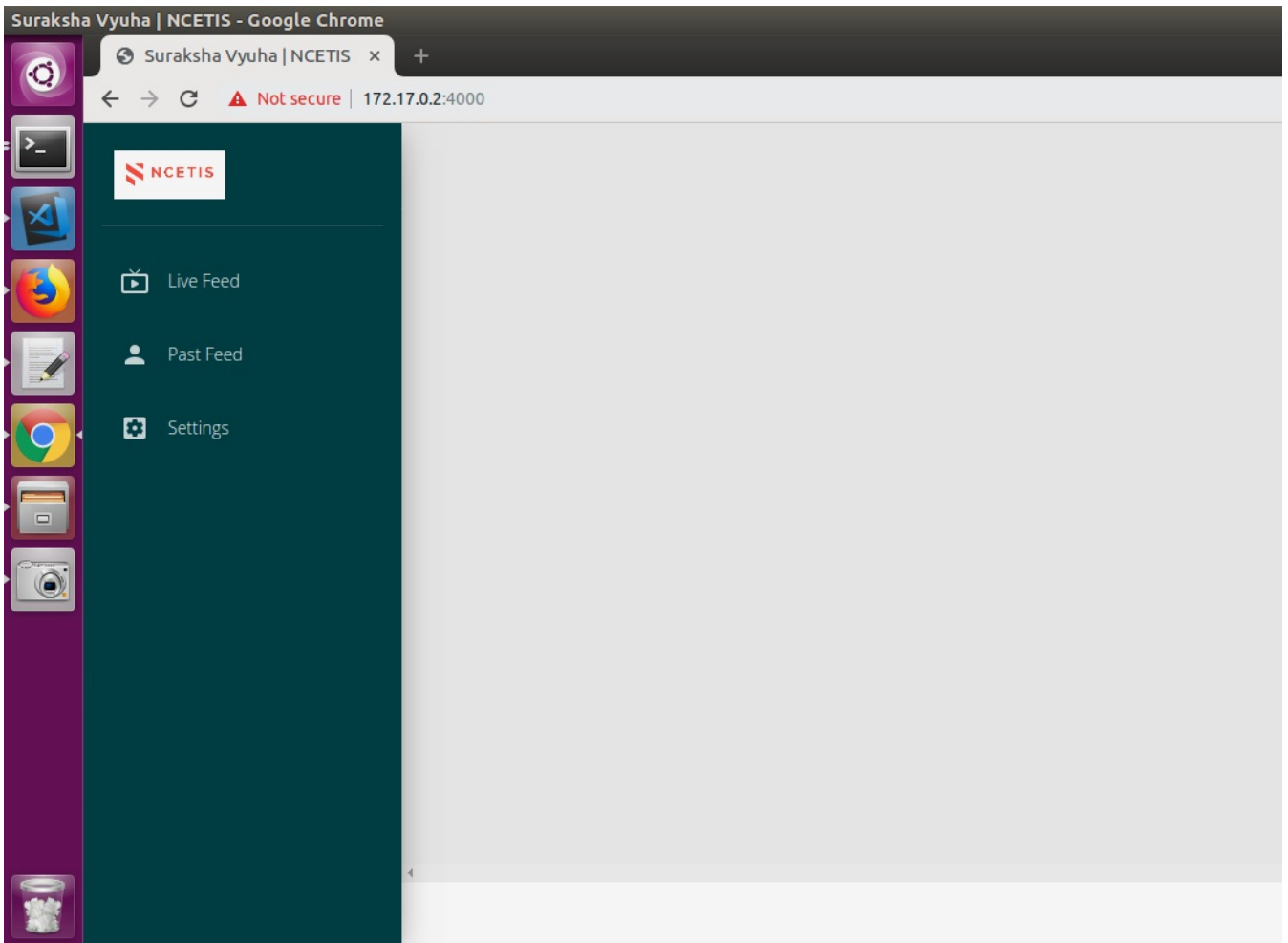
We will be providing this file to docker to create a container.

Once the surakshavyuha archive is prepared, install surakshavyuha locally using the steps found in the Surakshavyuha-Installation document. Following the steps in above link will help you to open a webpage as follows using URL : <http://172.17.0.2:4000>

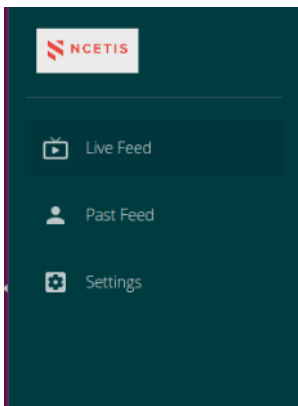


Using Suraksha Vyuha

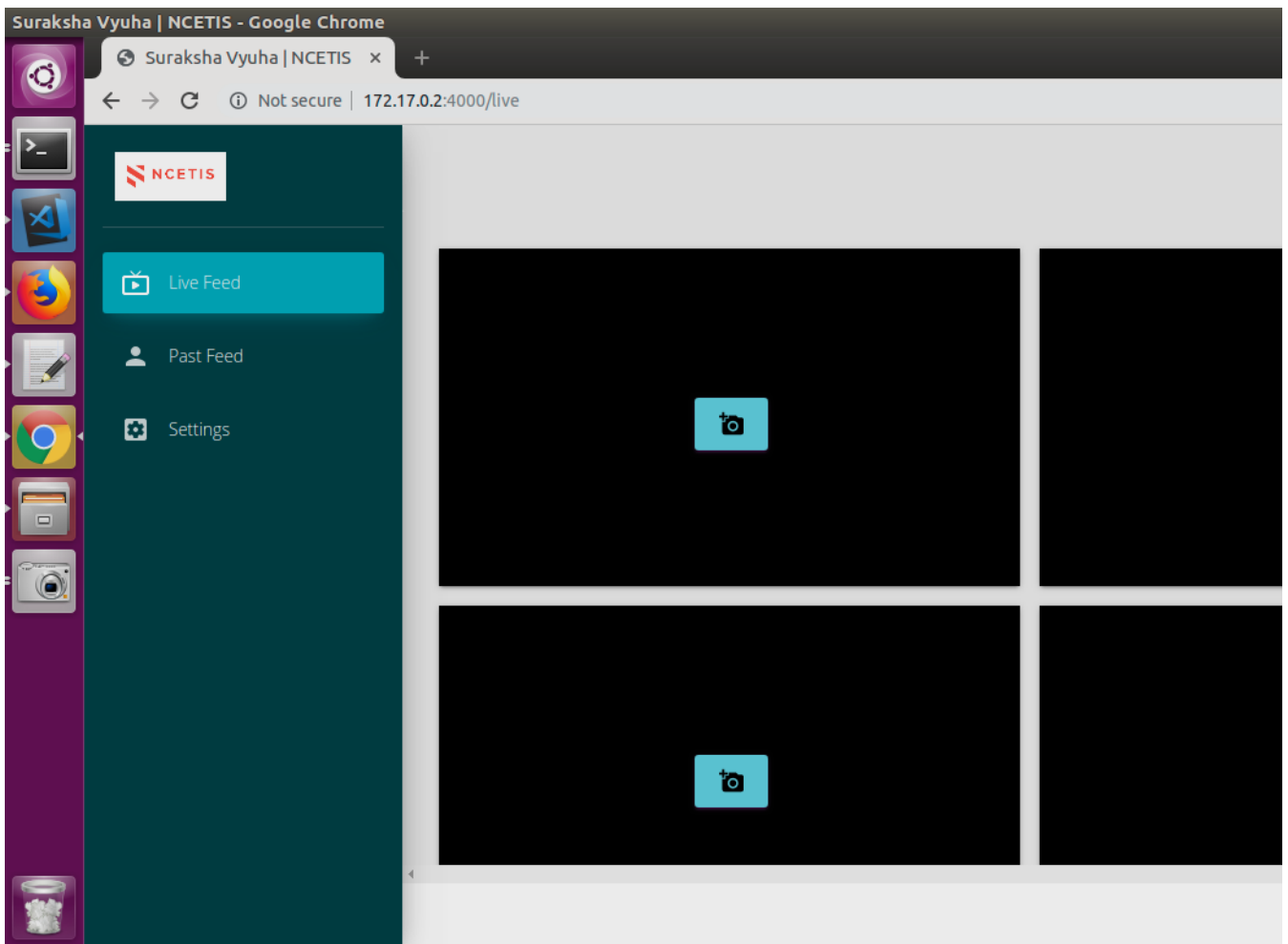
After logging in the following page will be shown.



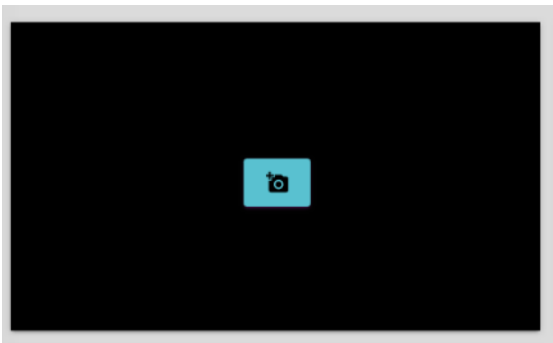
Maximize the web browser and Click on "Live Feed" in the left side panel.



On clicking, the following page will be shown.



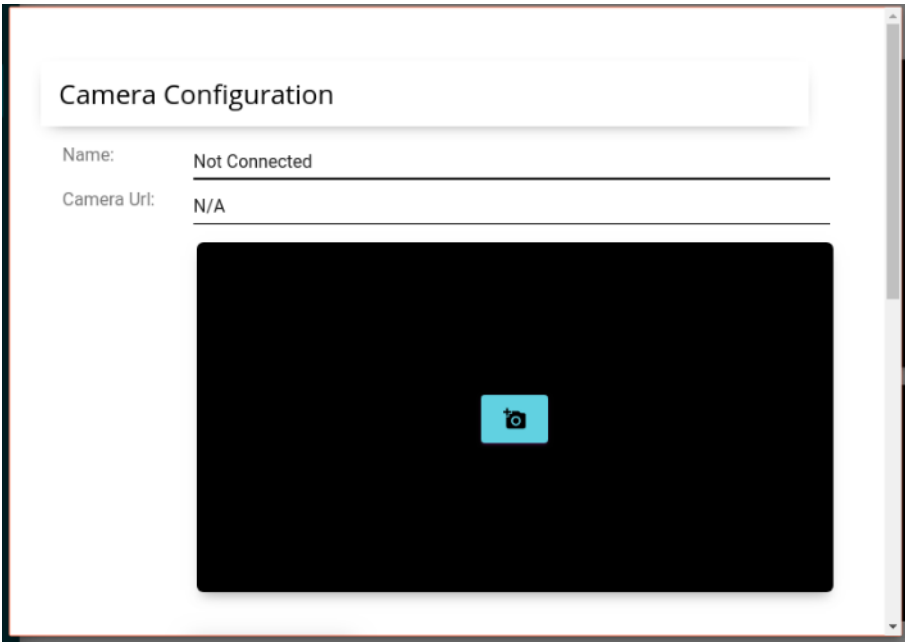
Each black box corresponds to a camera.
There are 8 such black boxes on the page, and it is possible to add 8 unique cameras to a single instance of Suraksha Vyuha.



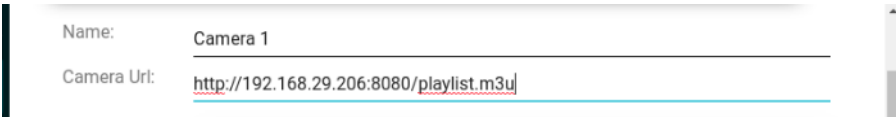
Click on the camera icon in the center of a black box.



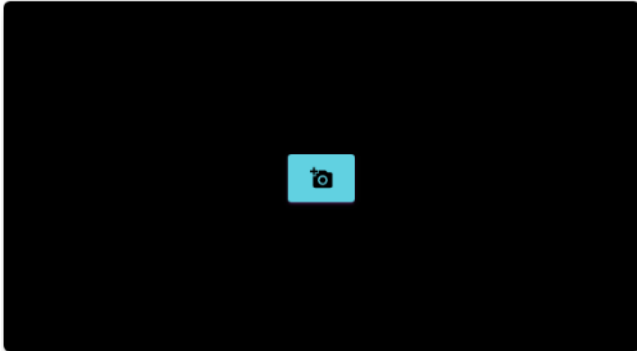
It opens the "Camera Configuration" page.



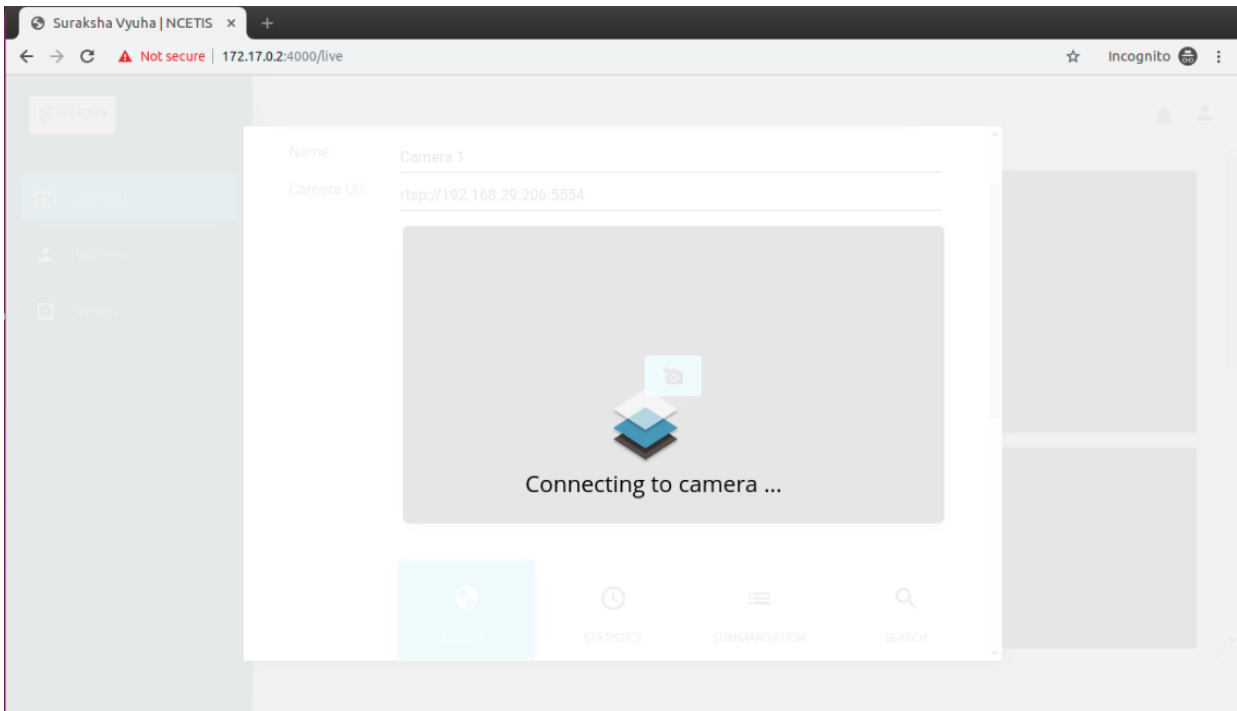
Specify a name for the camera, and provide the relevant and correct url of the ip camera.



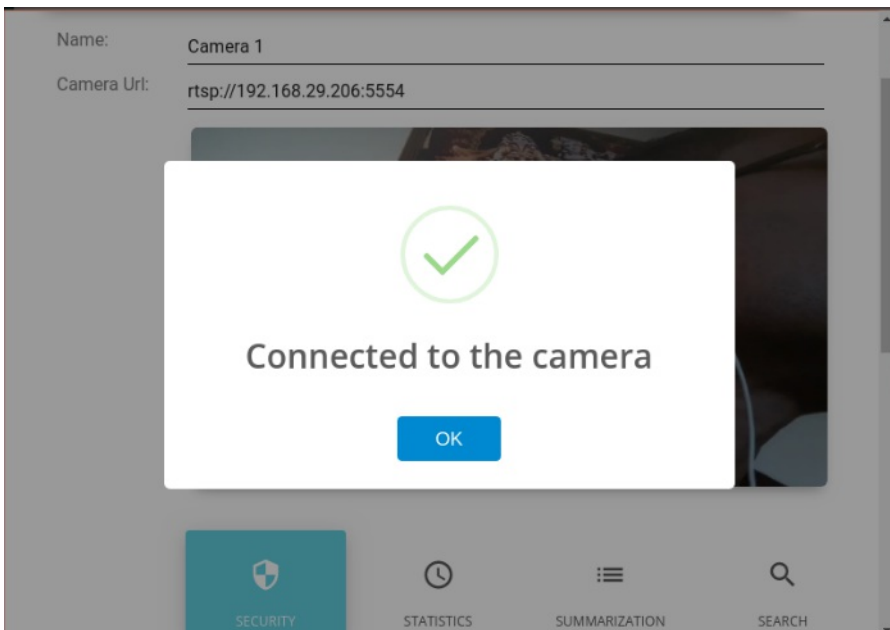
Then click the camera icon in the center of the black box.



After clicking, it will show "Connecting to camera...".



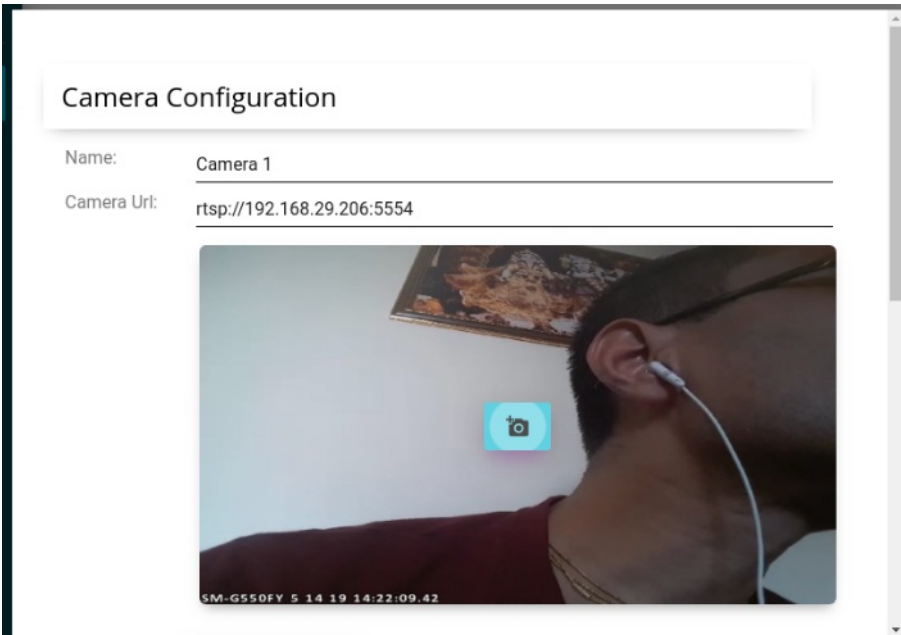
Once the camera is connected successfully, it will show the message "Connected to the camera".



Click on "OK" button.

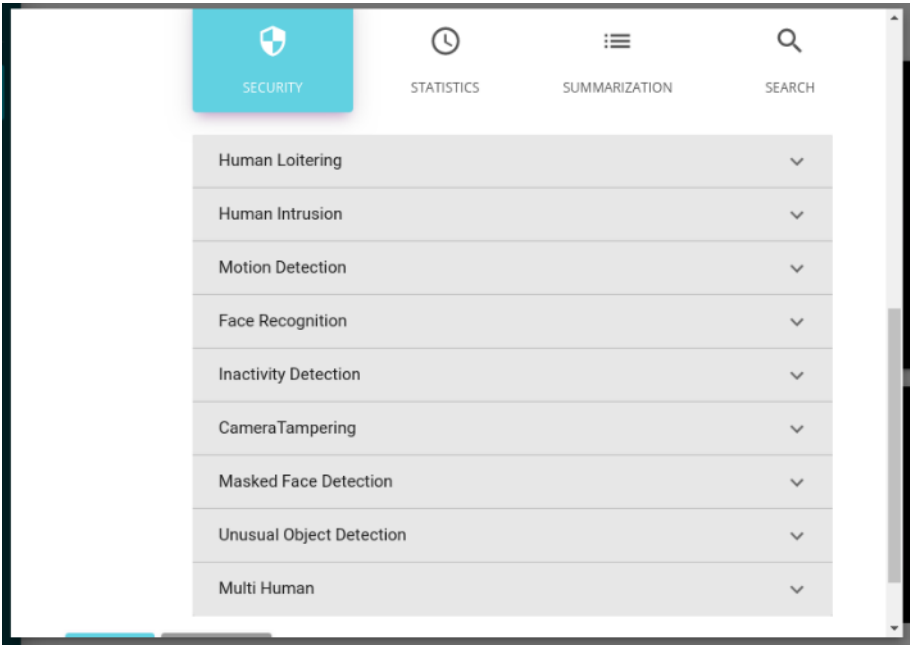


Image captured from the camera will be displayed in the box. For the very first time, it is possible that the image is seen after a couple of minutes.



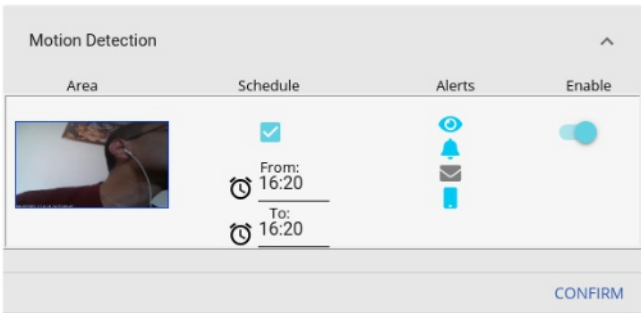
If an image from the camera is displayed, then the camera has been connected.

On scrolling down, a list of available analytics will be shown.



Click on a analytics and set parameters/options.

Here is an example of "Motion Detection".



This has the following options.

Enable



: Enable/Disable



: Set visual Alert.



: Set Sound Alert.

Define Schedule to keep the analytics enabled

Schedule




From:
16:20

To:
16:20



: Send alerts in email

On clicking , the following box opens where email id to which alert is to be sent can be specified.

Email Notification

Enter email addresses separated by comma

Email Address
a@b.com

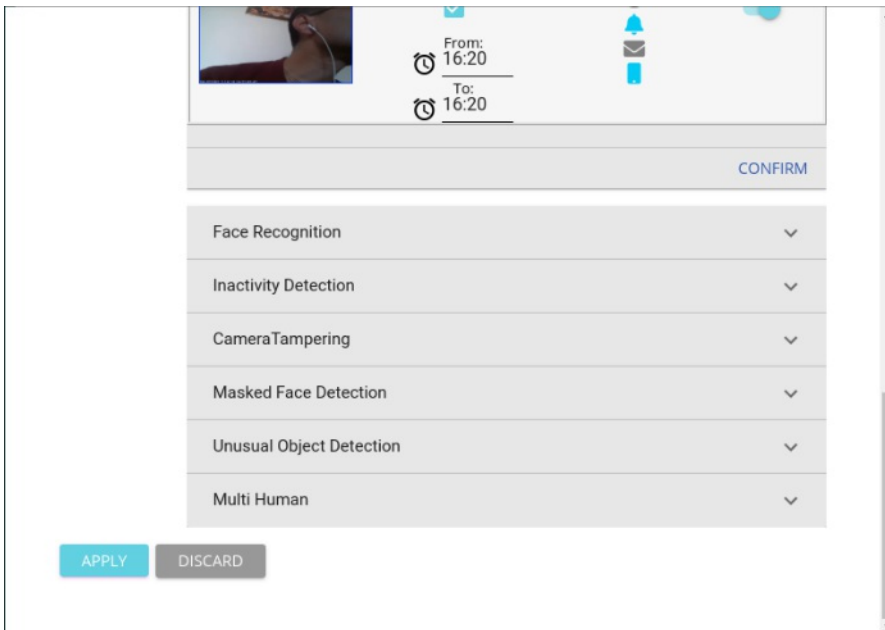
Once all details are entered, click on "Confirm" button at the right-hand bottom corner of "Motion Detection" section.


CONFIRM

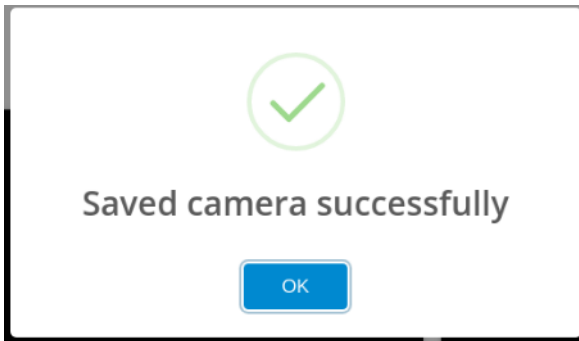
On clicking "Confirm", a message will be popped in the right-hand bottom corner of the web page, "Click on Apply to Save Changes".


The screenshot shows a camera settings interface. The 'Motion Detection' section is expanded, showing a table with columns: Area, Schedule, Alerts, and Enable. The 'Area' column contains a camera thumbnail. The 'Schedule' column shows a checked checkbox and a time range from 16:20 to 16:20. The 'Alerts' column shows icons for visual (eye), sound (bell), and email (envelope) alerts. The 'Enable' column shows a toggle switch. Below the table is a 'CONFIRM' button. At the bottom right, a green notification bar says 'Click on Apply to Save Changes' with a checkmark and a close button.

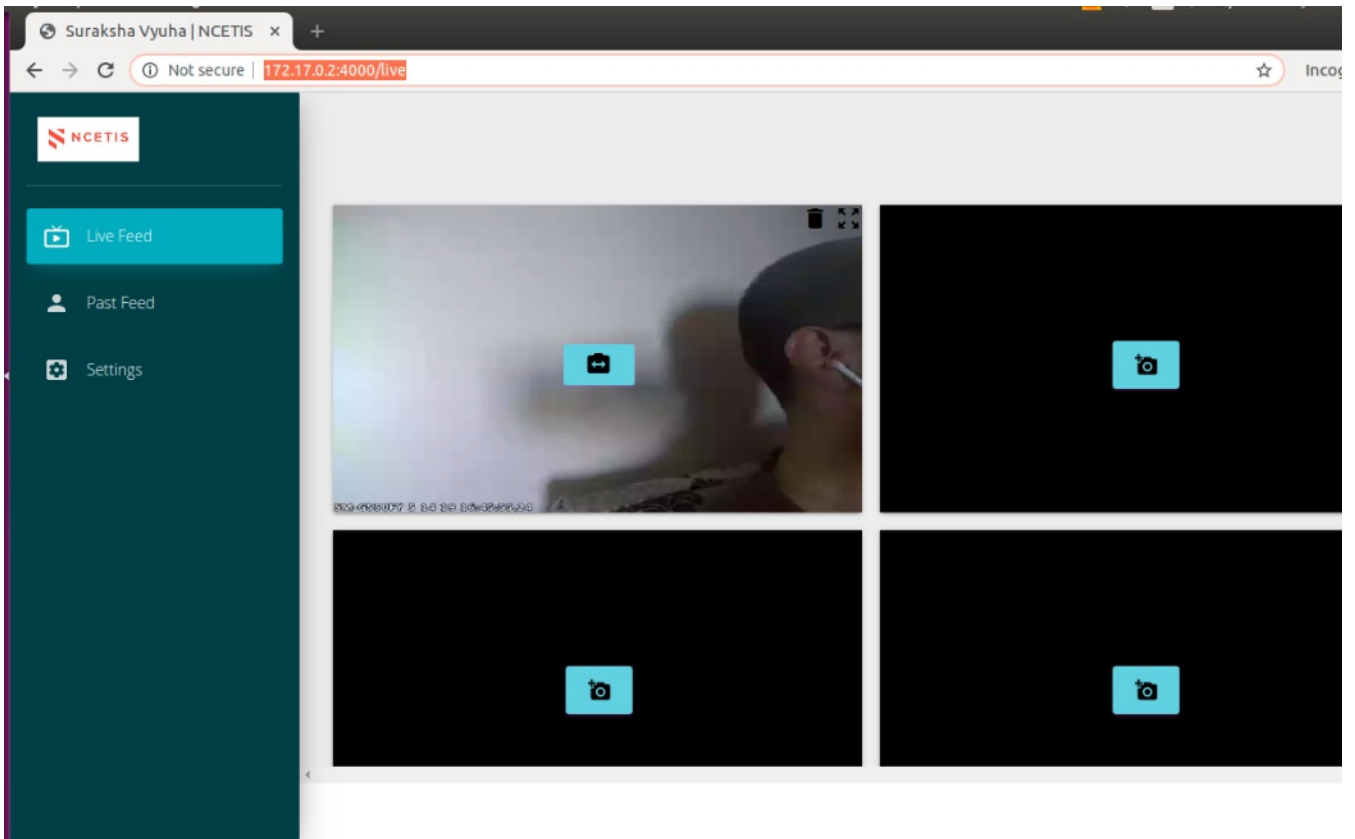
Click on "Apply" on left hand bottom of the camera addition section.



After clicking on , a message will be shown, "Saved camera successfully".



Click on  button.
Refresh the web page, <http://172.17.0.2:4000/live>.

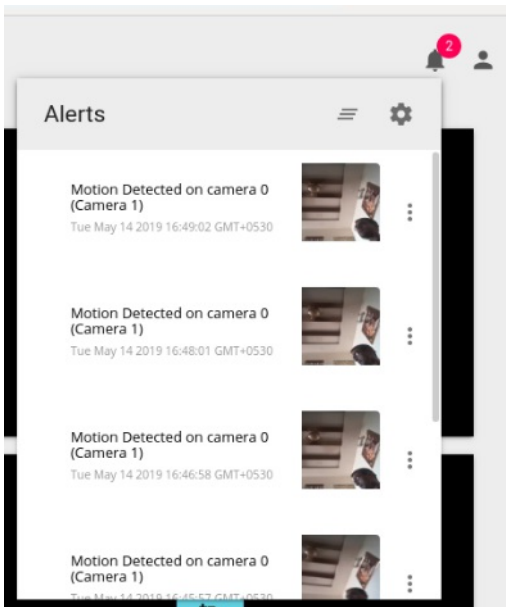


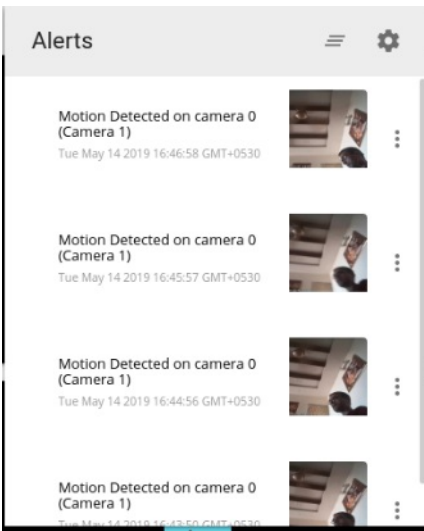
Live video stream from the camera will be displayed in the section corresponding to the camera added. For the very first time, it is possible that the video is seen after a couple of minutes.

Add up to 8 cameras like this.

After the camera is added, analytics will start on the live video stream coming in through the added camera.

Alerts for any analytics is displayed under the bell icon on the right hand upper corner of the web page. The number in a red circle on top of the bell icon shows the number of yet-to-be-seen-on-the-webpage alerts. Click on the icon to expand the list of alerts.

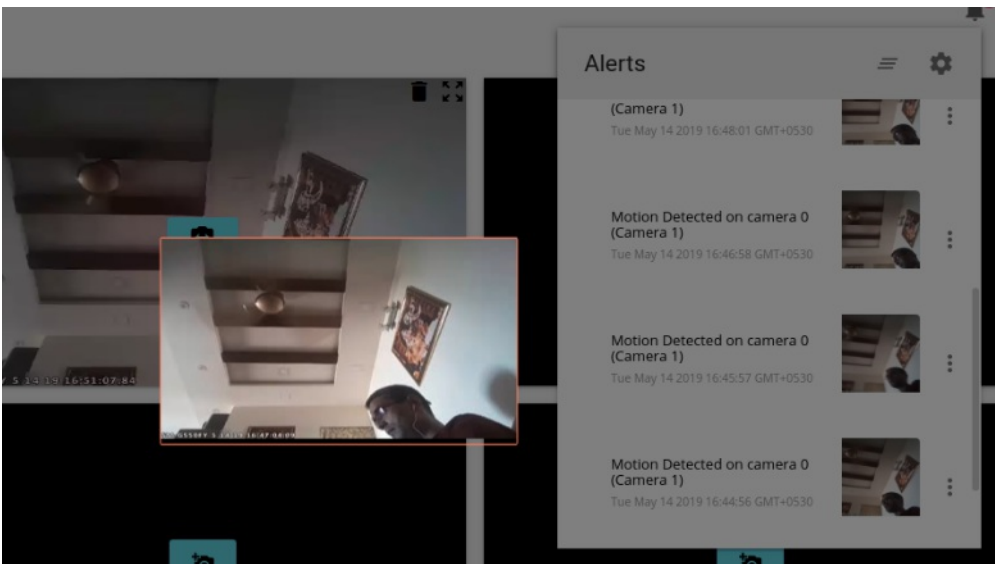
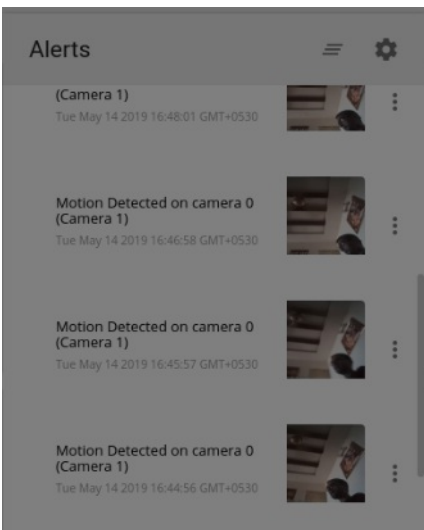




Any new alert pops a message box at the left hand side bottom of the web page.



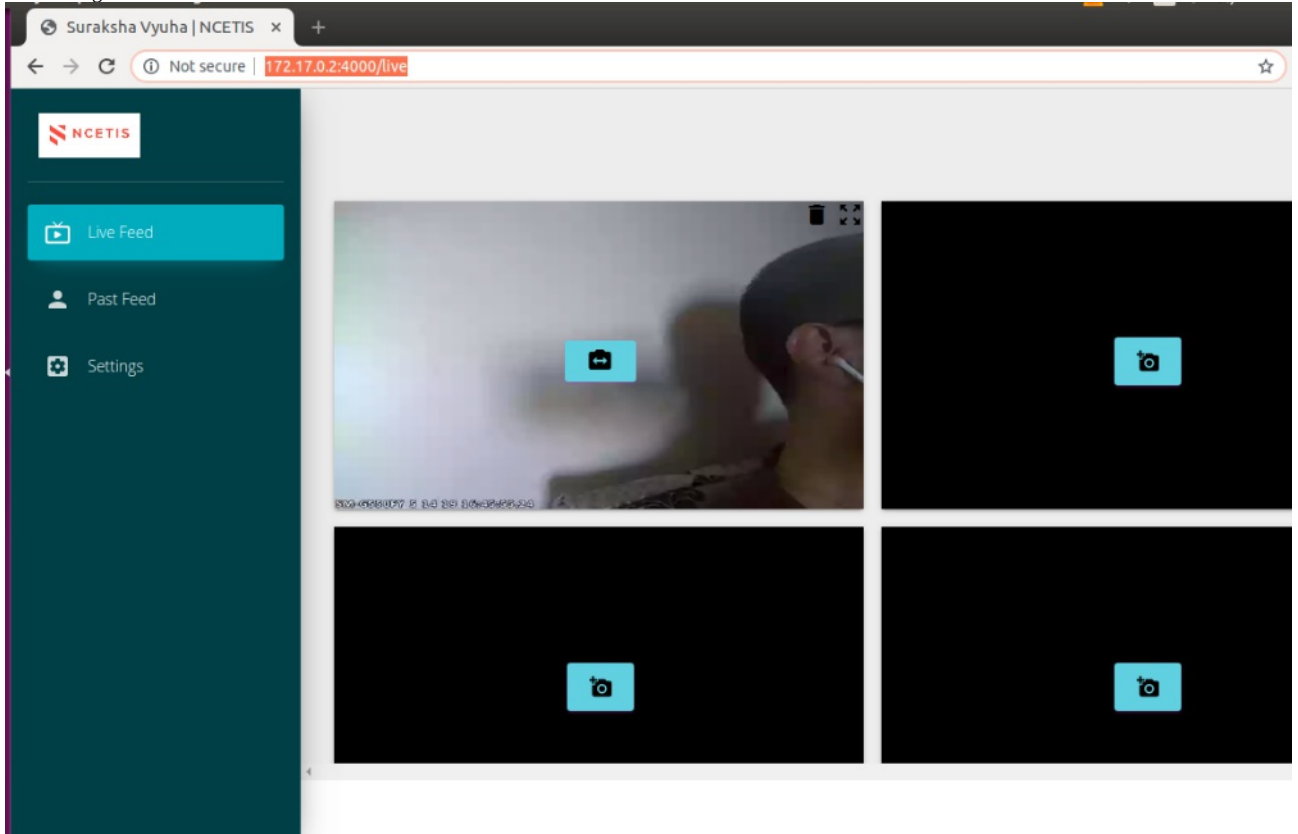
Clicking on the image in the list of alerts opens the frame in the live video stream in which the analytics was detected.



Stopping the Applications and logging out.

After the product is validated and run, we can stop the execution as follows.

1. Click on the icon of the user found on the top-left corner of the web page.
2. Click to logout.



3. Stop the application surakshavyuha-adapter which is running on the first container terminal. (Press Ctrl+C)
4. Stop the yarn application on the second terminal. (Press Ctrl + C)
5. If the stored data (images and alerts) are not required, then goto /home/sv-admin/ folder from any of the doc And execute `./post_run_script.sh`