



A recognition

User manual

The team -

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The client -

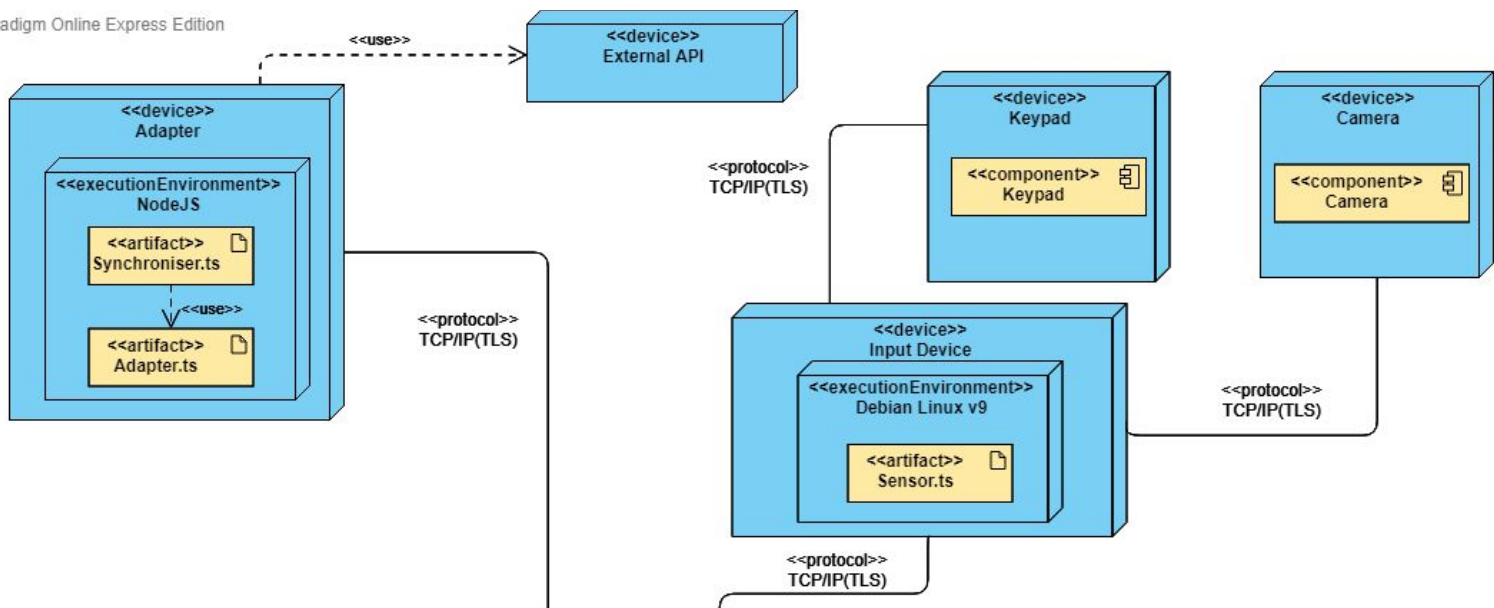
EPI-Use ,advance division *

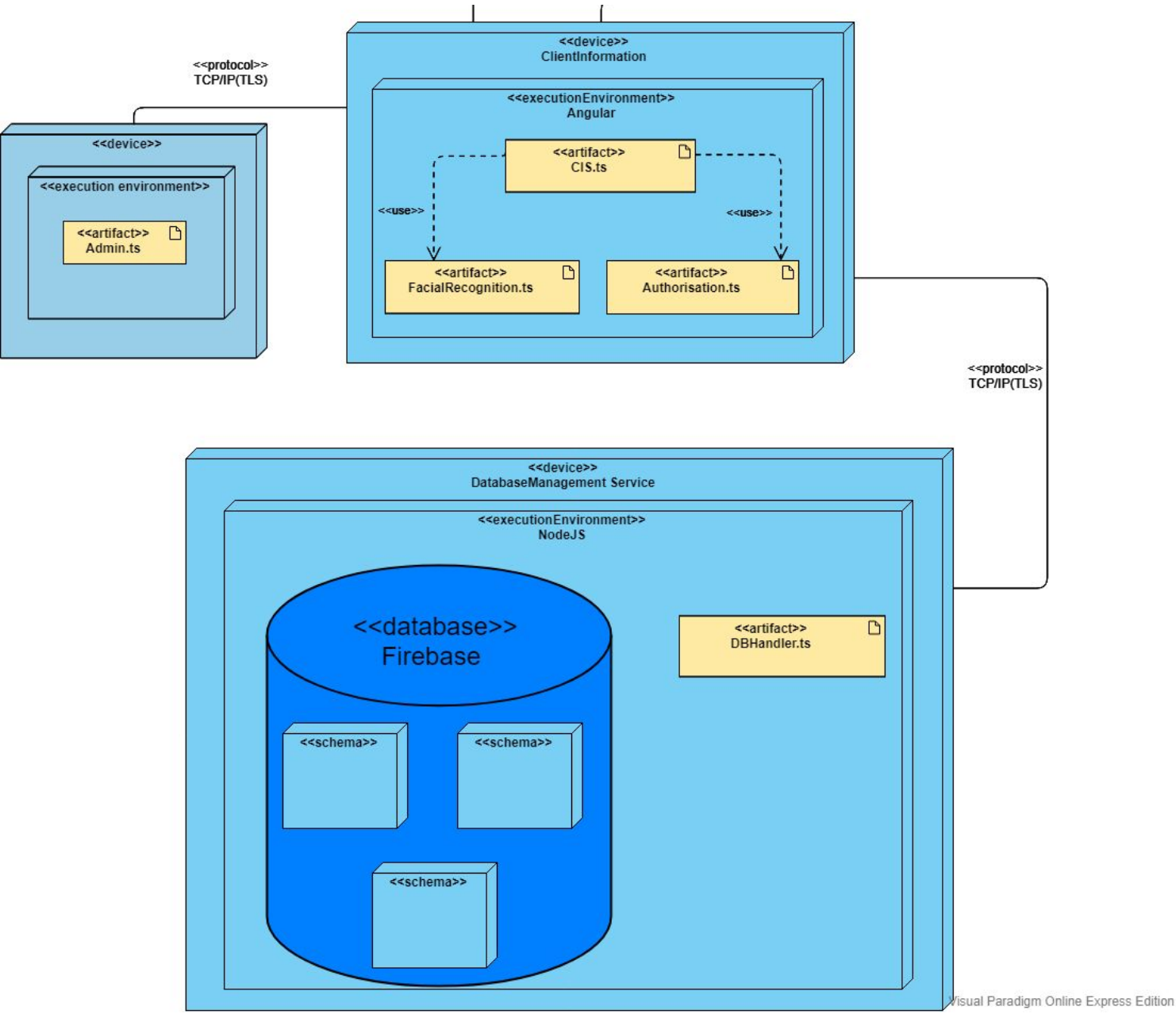
System Overview

The system is capable of registering users and then later identifying them via facial recognition.

System Configuration

Visual Paradigm Online Express Edition







Installation

The software is currently only available at
<https://github.com/cos301-2019-se/A-Recognition>

Open your systems terminal and type in git clone
<https://github.com/cos301-2019-se/A-Recognition.git>

Once the repo is cloned enter the A-Recognition file and then type in:

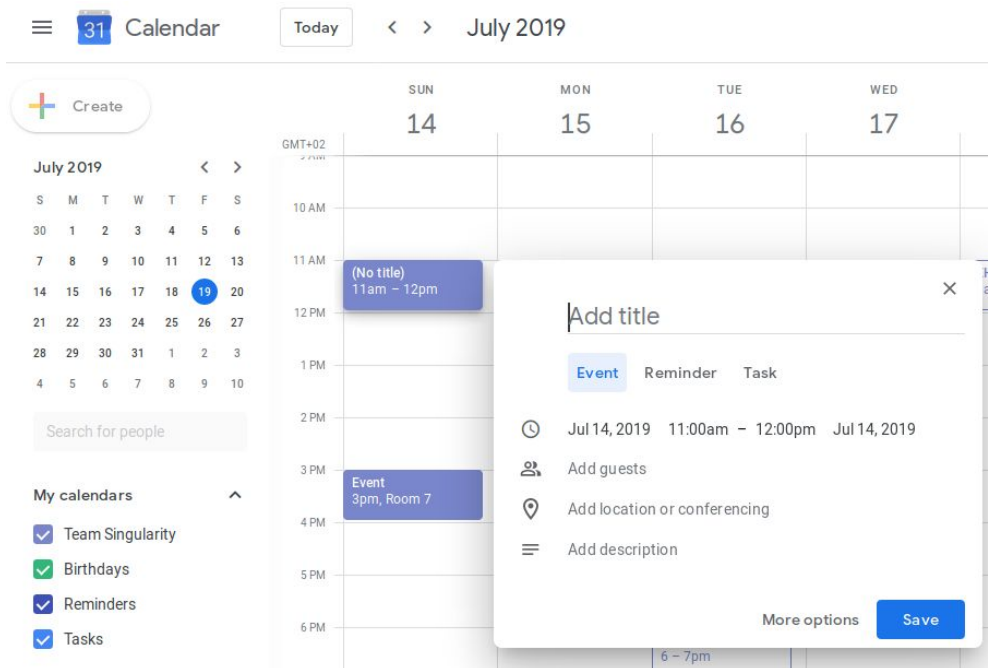
```
sudo apt -get install npm
npm install typescript
npm install ts-node
cd API_Adapter
npm install googleapis@39 --save
cd ../Central_Interface
npm install python-shell
npm install express --save
pip3 install firebase-admin
pip3 install firebase
cd ../Facial_Recognition
pip3 install -r requirements.txt
cd ..
npm install express --save
cpm install
```

Using the system

For user recognition and validation

Create an event using google calendar at

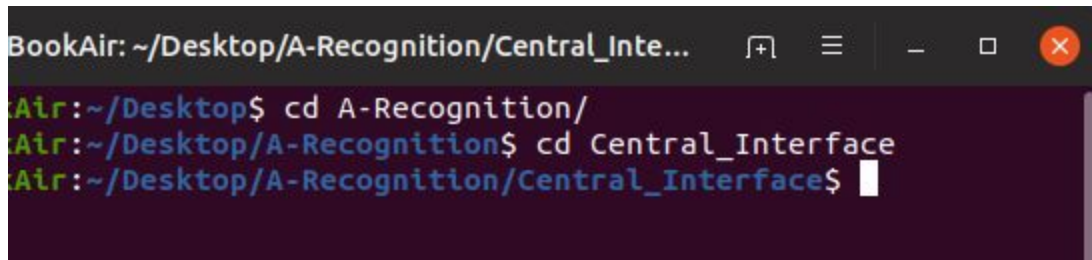
<https://calendar.google.com/calendar>



After creating an event run these commands :

Cd Central_Interface

Ts-node mainREST.ts

A terminal window with a dark background. The title bar shows 'BookAir: ~/Desktop/A-Recognition/Central_Inte...'. The terminal content shows three lines of commands: 'Air:~/Desktop\$ cd A-Recognition/', 'Air:~/Desktop/A-Recognition\$ cd Central_Interface', and 'Air:~/Desktop/A-Recognition/Central_Interface\$' followed by a cursor. The window has standard macOS window controls (red, yellow, green buttons) in the top right corner.

```
BookAir: ~/Desktop/A-Recognition/Central_Inte...  
Air:~/Desktop$ cd A-Recognition/  
Air:~/Desktop/A-Recognition$ cd Central_Interface  
Air:~/Desktop/A-Recognition/Central_Interface$
```

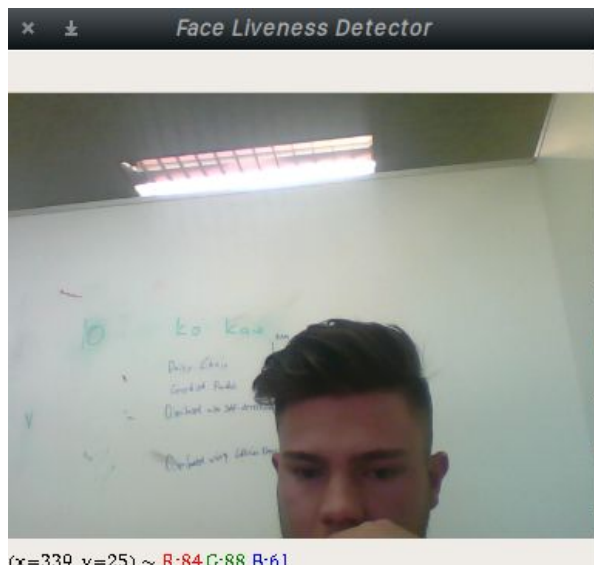
Open another terminal and run these commands:

Cd Facial_Recognition

Python3 face_rec.py

Now the system is running and will scan constantly for a user face.

Once a user face is detected the associated email for that user is used to check if they have a booking at the current time.



For Guest OTP creation & sending

After creating an event run these commands :

```
CdCentral_Interface
```

```
Ts-node main.ts
```

The server will run, waiting for an event booking that contains a guest to be made. Once the server detects a guest user then a single OTP will be created and emailed to the guest user along with other event information.



Troubleshooting

Facial recognition

Issue 1 : Face not detected

Certain cameras have poor fidelity and lighting quality can severely impact the performance of the facial recognition system.

If the camera does not detect you then you may have to either -

- Move closer to the camera
- Improve the lighting conditions in the environment

Issue 2 : Issue during installation of modules

Please ensure npm is up to date : `npm install npm`

Ensure you are typing in the correct commands, case sensitive.

Ensure you have write privileges, using `sudo` or running commands as admin.

