

SMART POLLING BOOTH

Group 03



OUR TEAM

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E/18/214



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**ARE YOU SATISFIED
WITH THE CURRENT
VOTING PROCESS...?**

CURRENT VOTING SYSTEM

Solution We are Suggesting

Introducing a Smart Polling Booth with

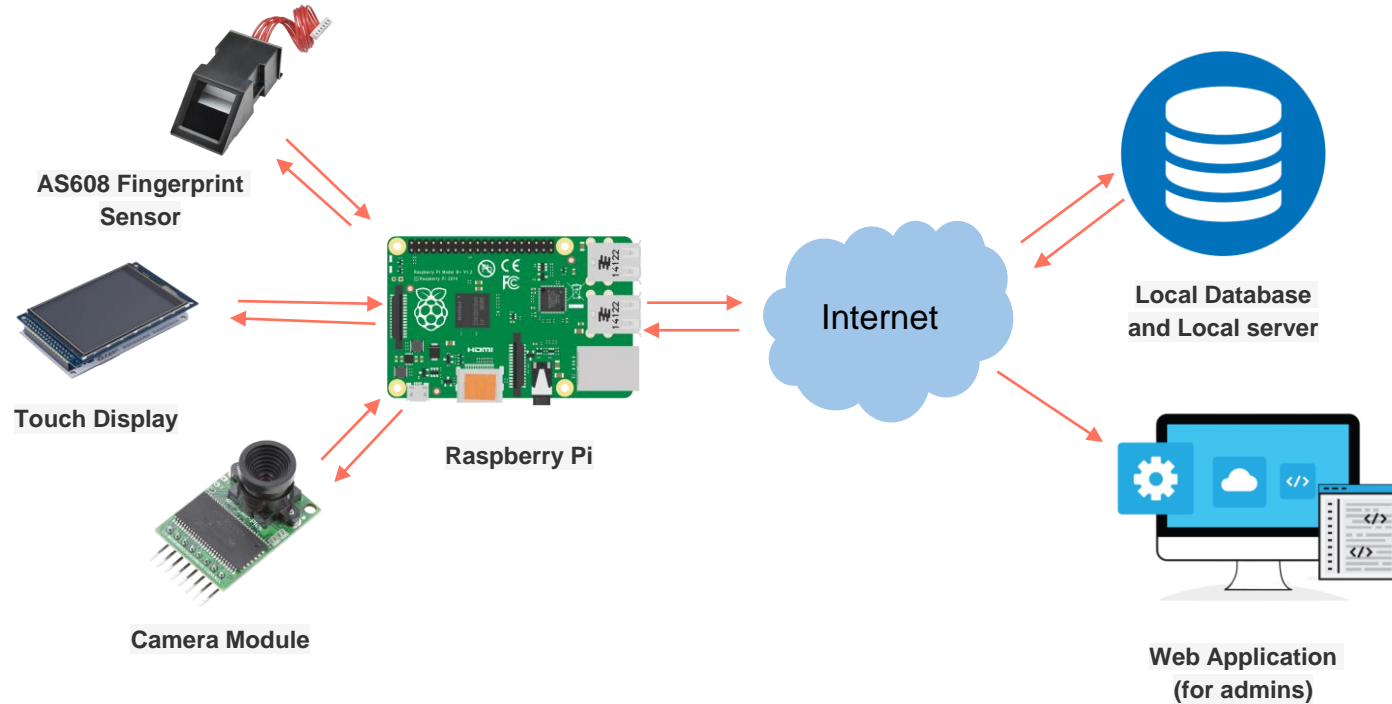
- Use both **fingerprints** and **face recognition** to verify the identity of the voters.
- Facilitating to monitor the voting process time-to-time.
- Facilitating to analyze the votings.
- Reducing the cost going for papers, labourers.



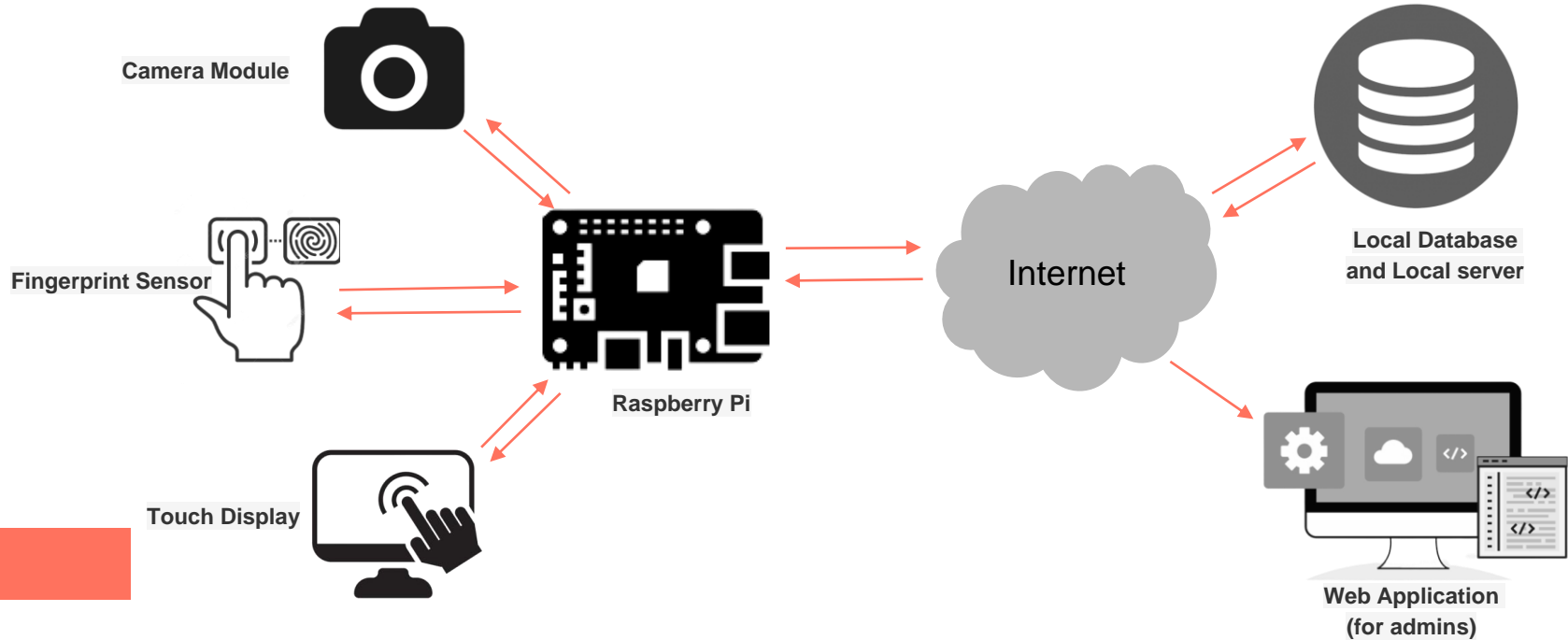
SOLUTION **ARCHITECTURE**



High-Level System Organization



Flow of Data Through the System



Security & Privacy Features

- Remove the access for the unauthorized parties from the web application.
- Limit the access even for admins in order to secure the privacy of the voters.
- Sound buzzer if something went wrong(User authentication failed).
- Use asymmetric encryption when data uploading and downloading





TECHNOLOGY STACK



Software



For front
end
developing
for admins

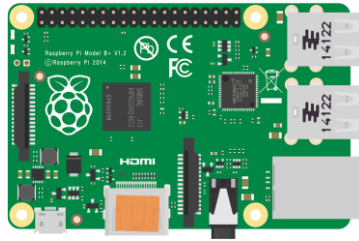


For
BackEnd
developing



For Version
Controlling

Hardware



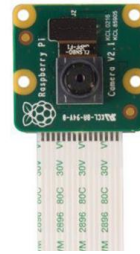
Raspberry Pi 4 Model b

- 4GB Ram
- 2GB LPDDR4-2400 SDRAM
- 2.4 GHz and 5.0 GHz IEEE 802.11ac wireless
- Quad core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz



AS608 Biometric Fingerprint

- Resolution: 500dpi
- Supply current = 60mA
- Supply voltage = 3.3
- Fingerprint image entry time = 1
- Peak current = 60mA
- Window area = 15.3x18.2MM
- Interface = USB/UART



Raspberry Pi Camera V2 Camera Module

- 3280 x 2464 Resolution
- 8 megapixels fixed focus
- Supports 1080p, 720p60 & VGA90
- Sony IMX219PQ CMOS image sensor
- 15-pin ribbon cable



7 inch Raspberry pi 3 B touch

- screen 1024*600
- 7.0 inch
- IPS Capacitive Touch Screen
- LCDHDMI interface

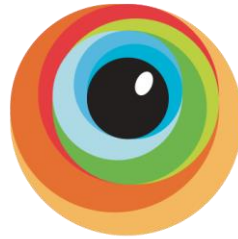
Testing Plan



Platform IO



Jest



BrowserStack



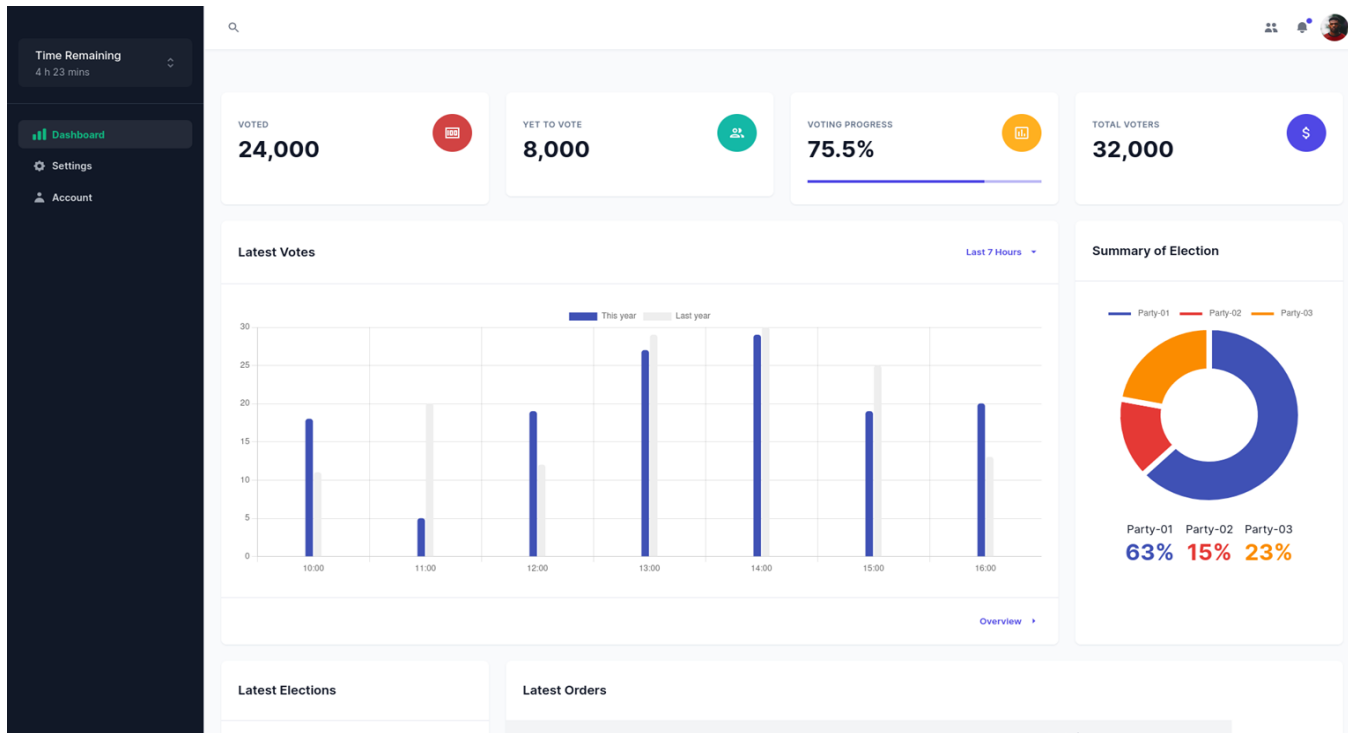
PostMan



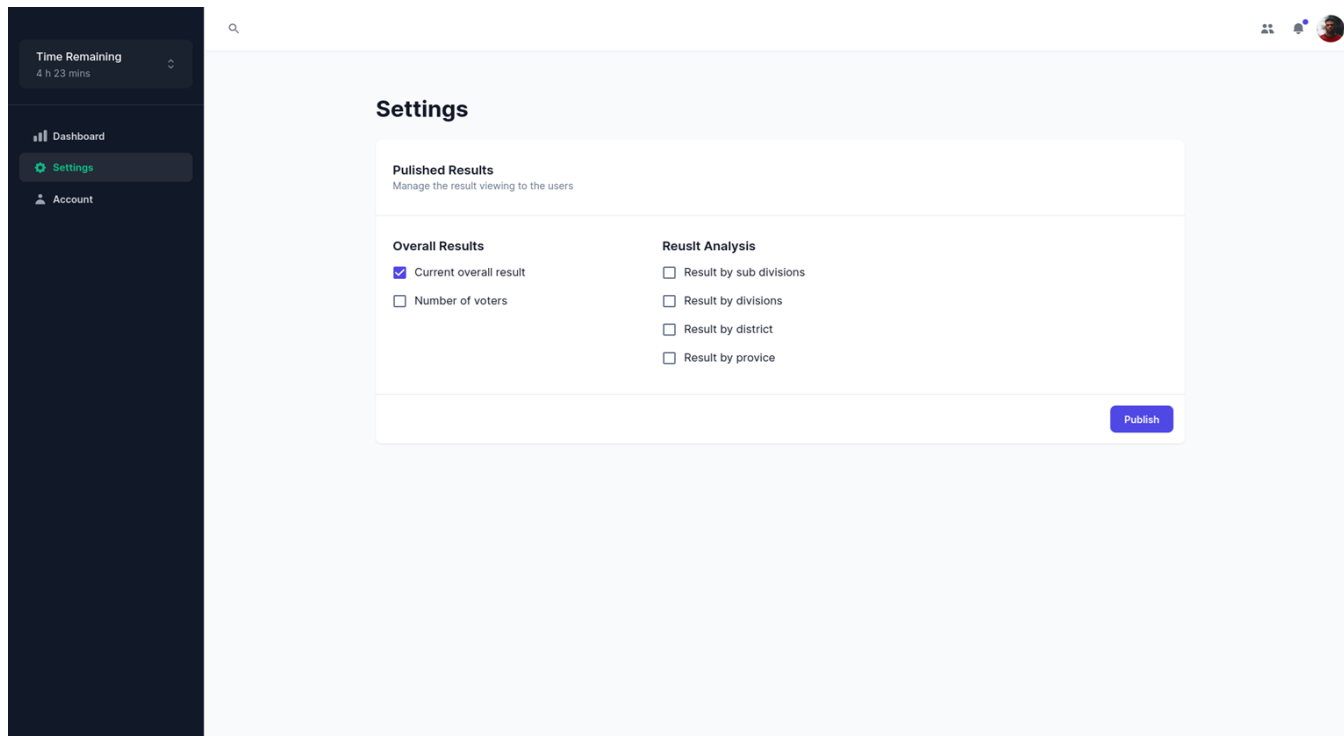
UI DESIGNS



DashBoard



Settings



Account


Time Remaining
4 h 23 mins

Dashboard

Settings

Account

Admin Account



Hirushi Devindi
Kandy Sri Lanka

Upload picture

Profile
The information can be edited

First name *

Please specify the first name

Last name *

Email Address *

Phone Number

Select Province *

Southern

Country *

Save

Budget & Bill of Materials

Smart Polling Booth - Estimated Budget			
Name	Qty.	Unit Price (Rs)	Price (Rs)
Raspberry Pi 4 Model b – 4GB Ram	1	23700	23700
AS608 Biometric Fingerprint Reader	1	3850	3850
Raspberry Pi Camera V2 Camera Module, CSI-2, 3280 x 2464 Resolution	1	14100	14100
7 Inch 800x480 HDMI TFT LCD Touch Screen for Raspberry PI 3 2	1	14000	14000
Mini Buzzer	1	80	80
Raspberry Pi 4 Case	1	550	550
Power Supply Adaptor 5V 1A	1	1000	1000
Resistors, Wires and others			3000
Total			60280

We are on

GitHub Project Repository

<https://github.com/cepdnack/e18-3yp-smart-polling-booth>

GitHub Project Page

<https://cepdnack.github.io/e18-3yp-smart-polling-booth/>

Q & A

**Thank
You....!**

