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Capstone Project

IoT-Enabled Air Pollution Meter With Digital Dashboard On Smartphone

Group Members:

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Contain

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- Wireframe Model

Plan

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Our idea is based on cloud computing. The motivation behind this is to use a cloud service as the intermediate between application and IOT devices such as air quality sensors for measuring air quality index and send this data via ESP8266 sensor. This data is then processed in the cloud and displayed in the application.

Tools and Technology Used

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- Android studio
- Java
- XML
- Amazon Web Service
- AWS Android API
- ESP8266 and DHT Sensors
- Arduino IDE
- C++
- GitHub
- VS Code Editor

Work Flow

Sl.#	Activities	Dates
1	Prototype app	6 Feb
2	AWS cloud initialization	17 Feb
3	AWS IAM user integration	18 Feb
4	Defining AWS IOT core	20 Feb
5	Registering IOT thing in AWS console with certificate and keys	26 Feb
6	Defining IOT device policies	1 March
7	Writing and uploading code in IOT devices	5 March
8	Testing app and fixing bugs	15 March
9	Finalizing app	20 March
10	Checking vulnerabilities	5 April
11	Final presentation	15 April

Roles and Responsibility

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Sl.#	Name	Roles and Responsibility
1	Biren Sharma	App Dashboard
2	Hitesh Mittal	IOT device coding
3	Jobin Joseph	IOT and android integration
4	Shantanu Bahuguna	AWS IOT core
5	Yogesh Sharma	AWS IAM integration

Flow Diagram

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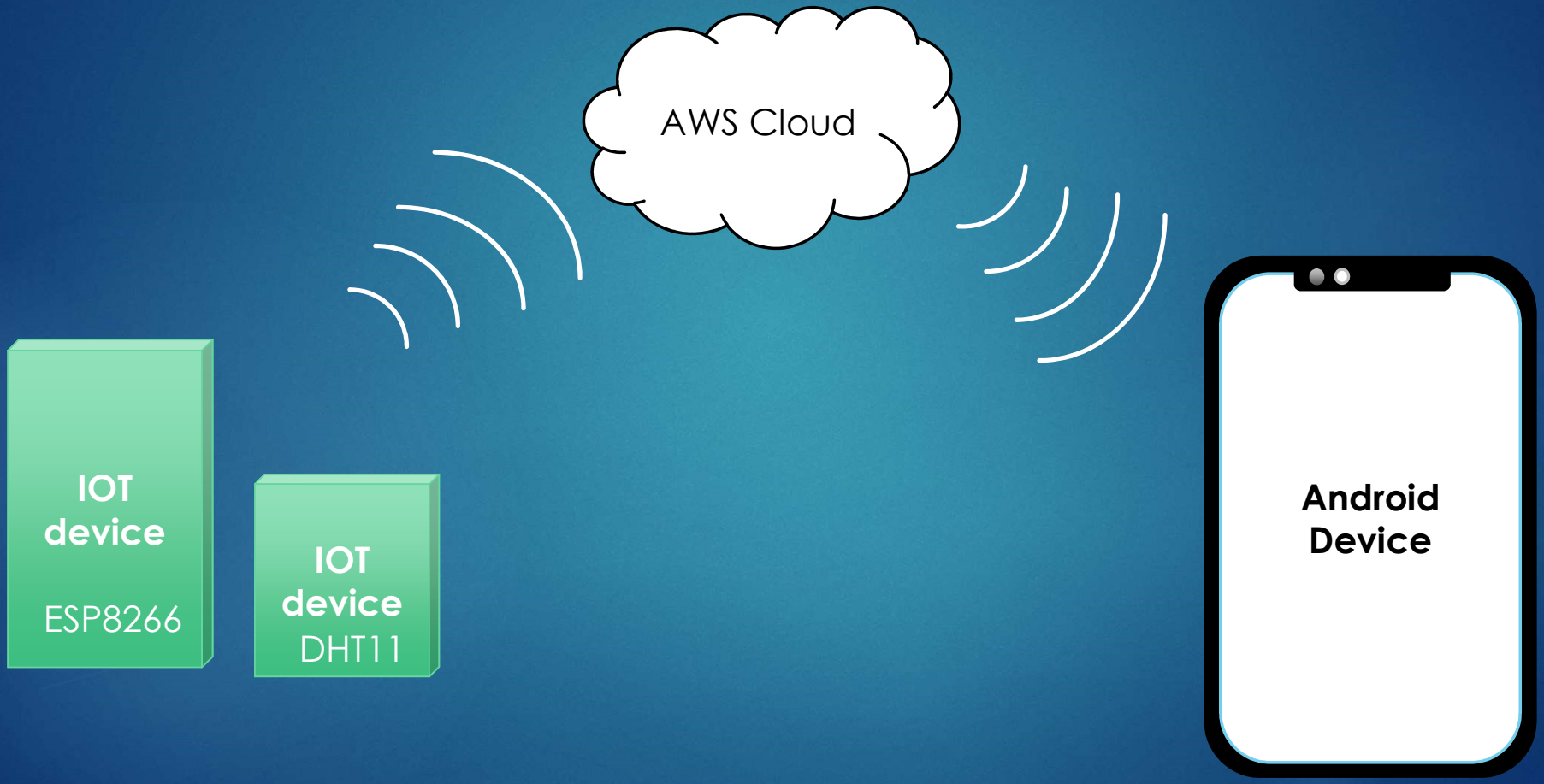

Final Deliverables

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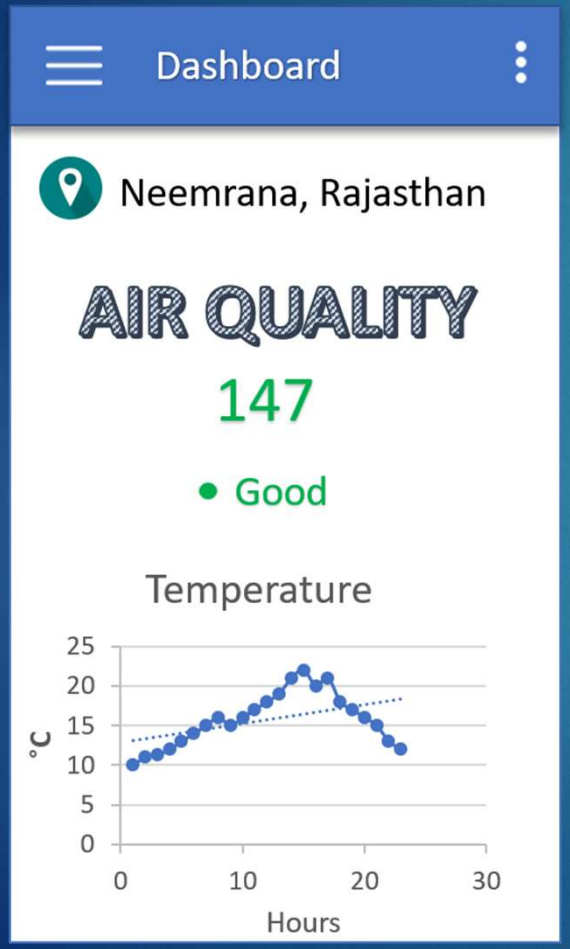
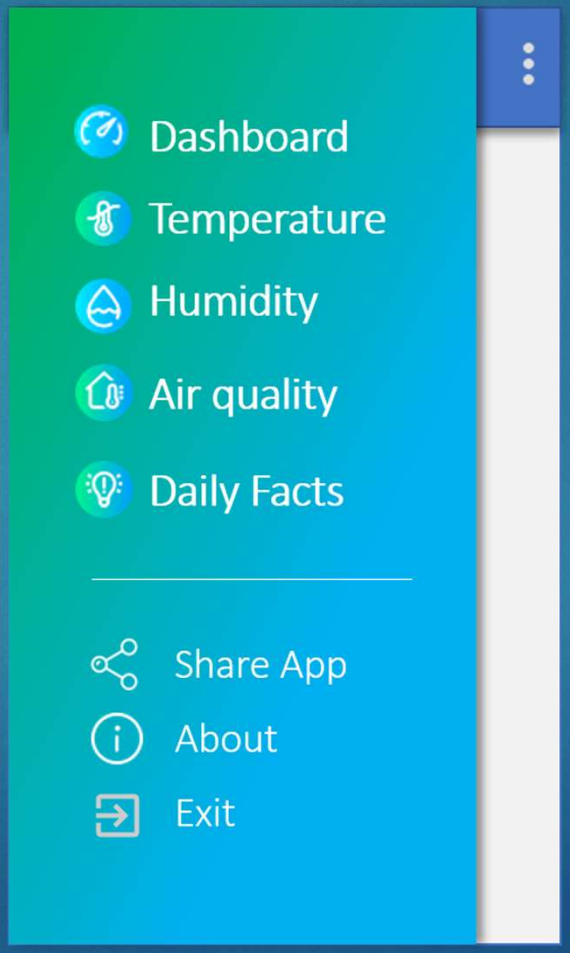
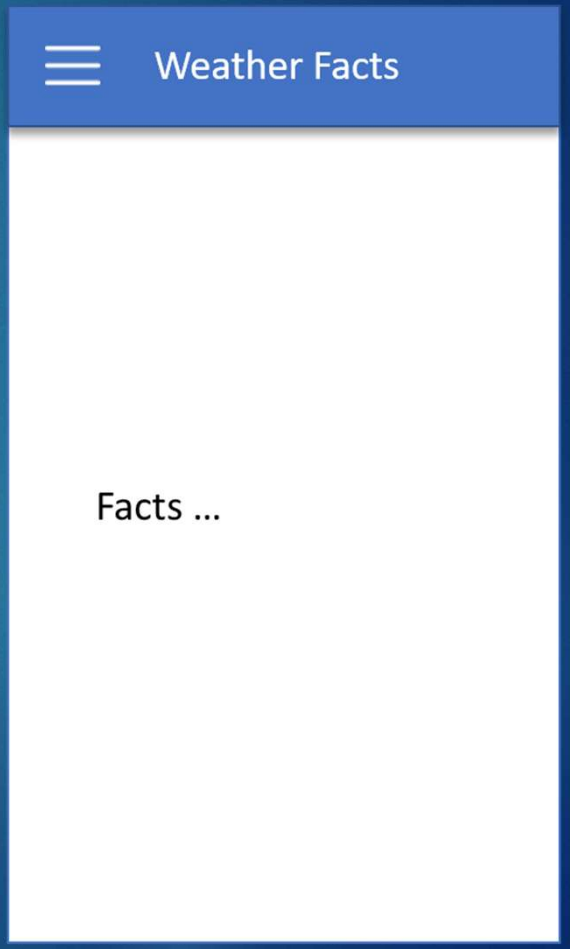
Android app with following deliverables

- Air Quality Data
- Temperature
- Humidity
- Graph predictions
- Current location
- Weather facts and awareness

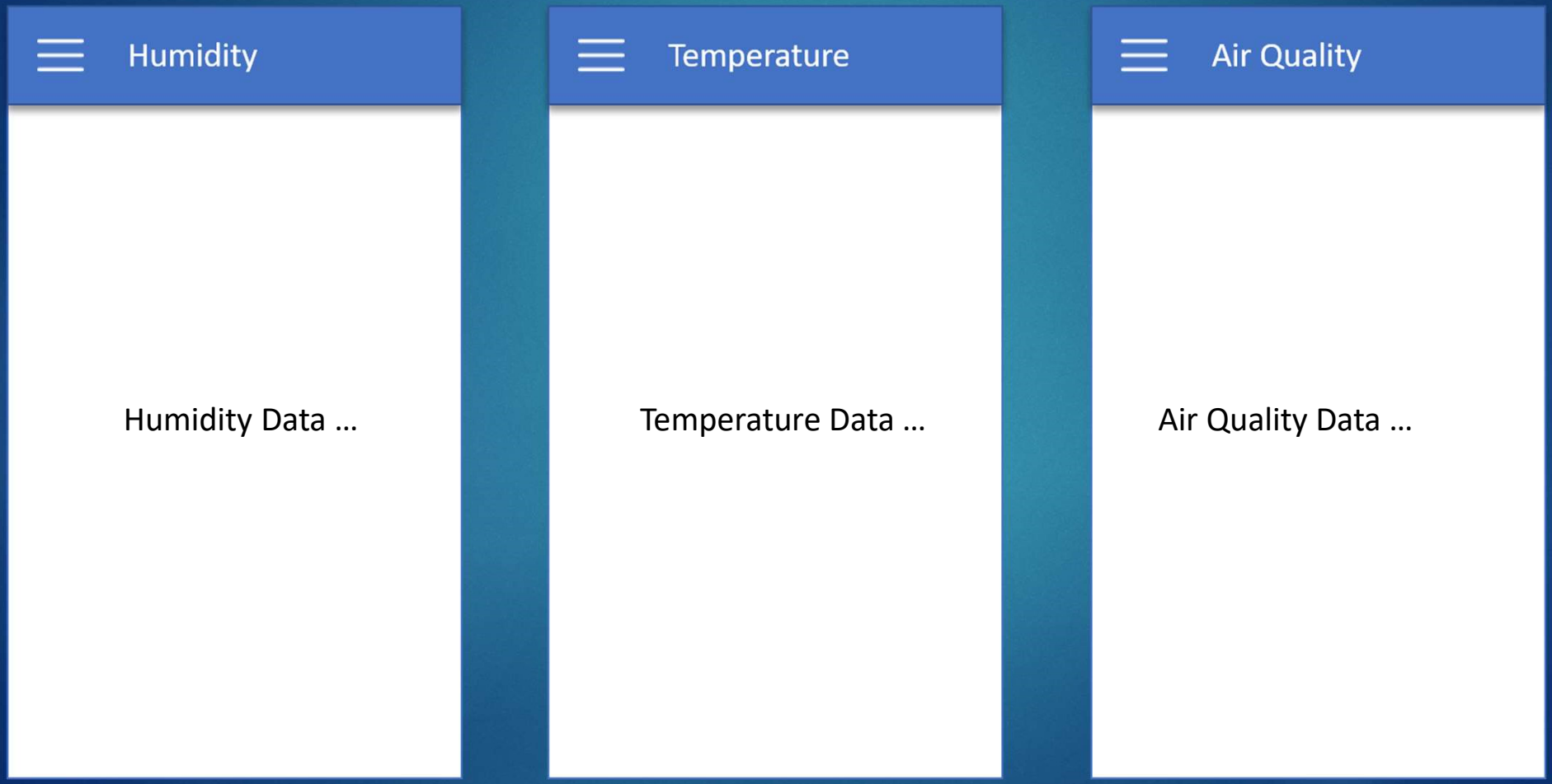
Wireframe Model







Wireframe Model



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THANK YOU!!!