

Smart Cradle



GROUP 10

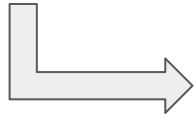
E/17/040 : CHANDRASENA M.M.D.

E/17/356 : UPEKHA H.P.S

E/17/407 : WIJESOORIYA H.D

WHAT WE IMPLEMENT....

Smart Cradle which can be controlled by
Mobile Application

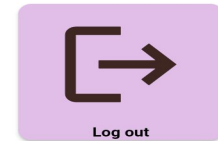
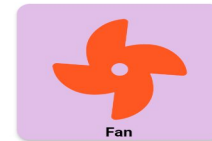
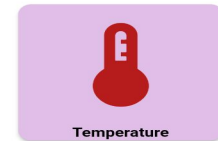
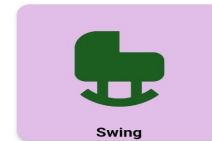
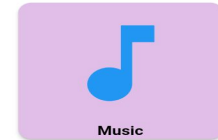
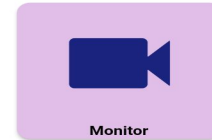
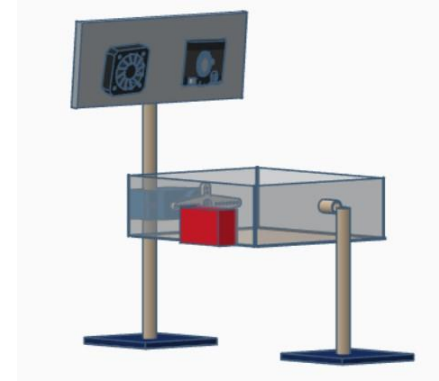
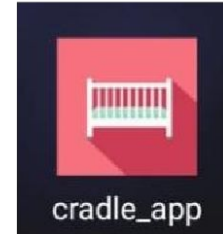


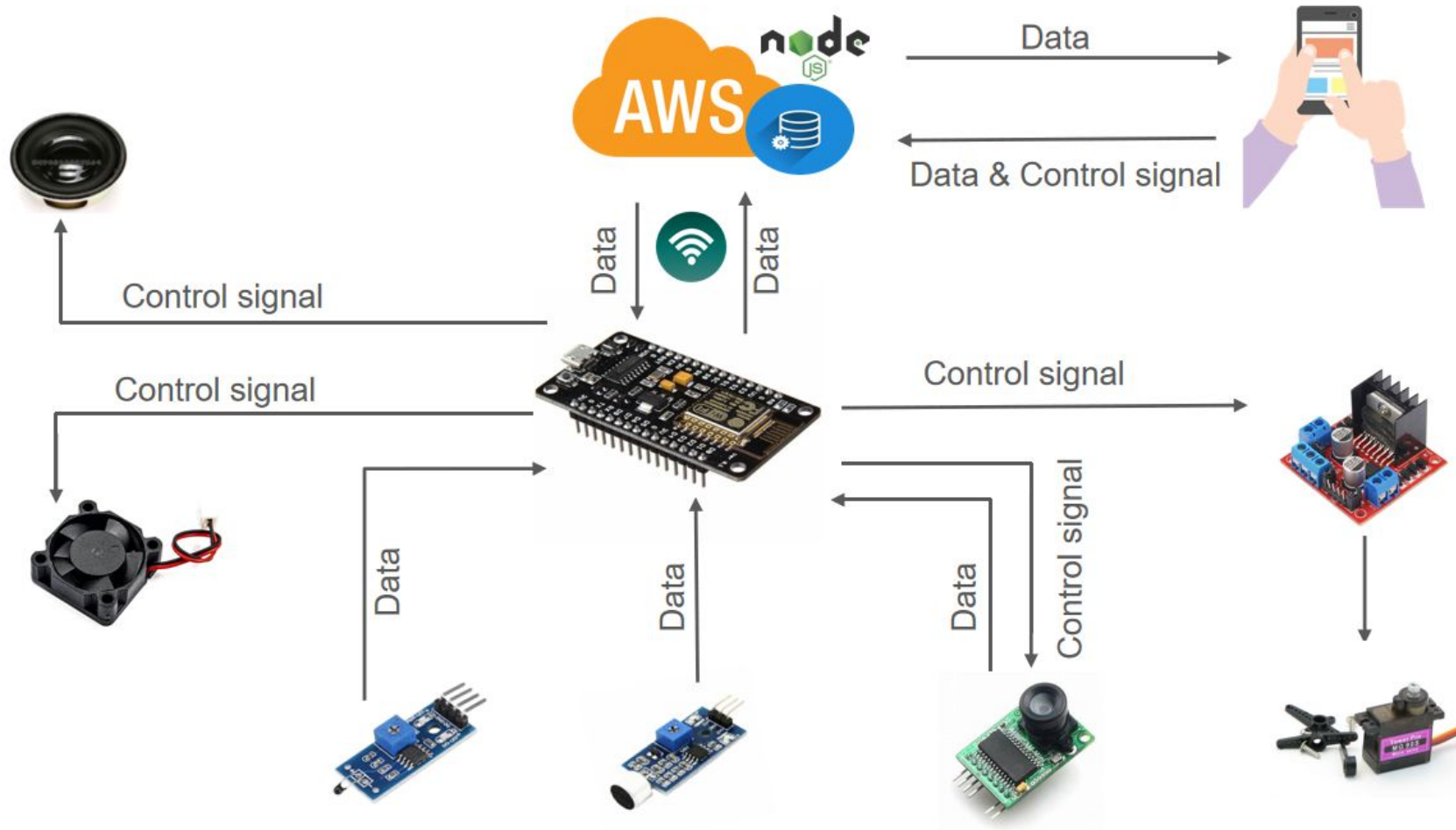
Cry Detection Mechanism



Mobile Application

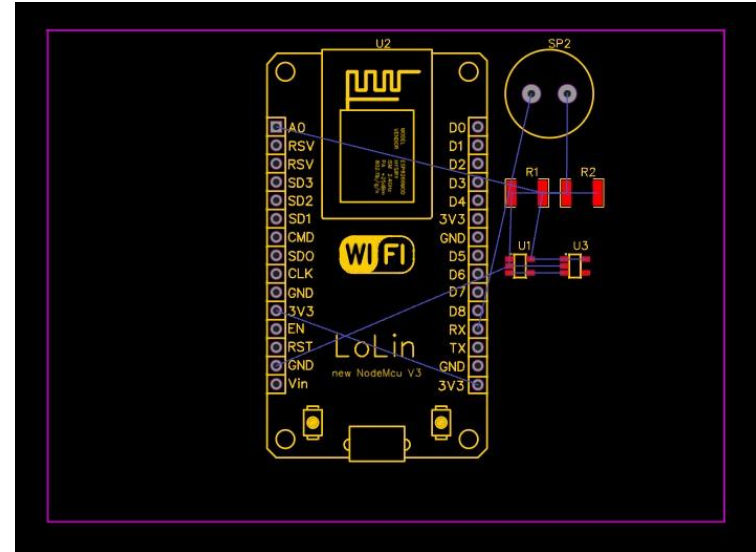
- Monitor the Baby
- Swing the Cradle
- Check the Room Temperature
- Play Music
- Switch on the Fan



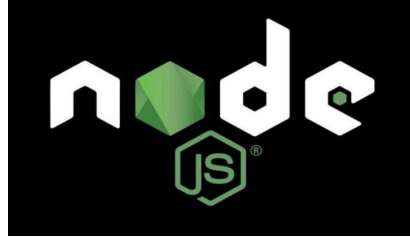


CIRCUIT DESIGN

PCB Design



Technologies



Mobile Application

- Open source
- Simple and fast
- Important packages used
 - http
 - secure storage

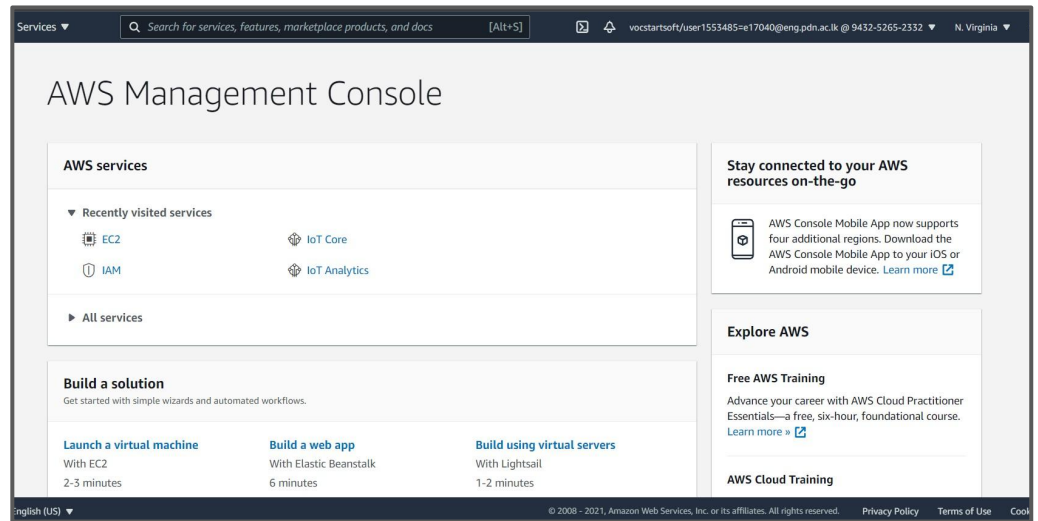
Backend

- Open source
- Highly scalable
- Fast
- Important libraries used
 - Express
 - joi

Database

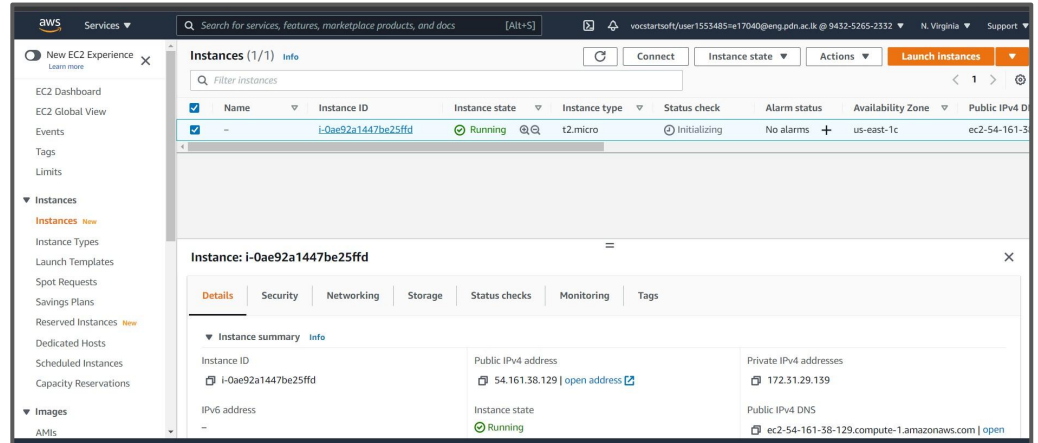
- Secure
- Scalable
- High performance

Cloud Deployment

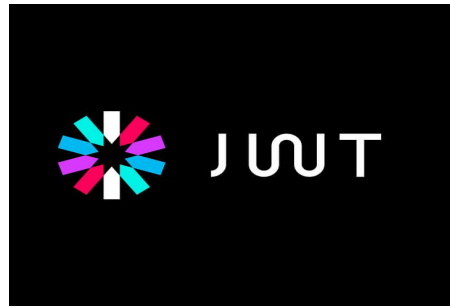


Hosting

- Secure
- Reliable
- Scalable
- Services used
 - EC2
 - Amazon RDS



Security



- JWT authentication
- Password hashing
- Data validation
- Amazon RDS

user_name	password
Ashan	\$2b\$10\$A0IPr23u5J/ECWIouQ.fgu1aFe0NY5H4aUhG7jsnjtu1V4otxHoay
Gayan	\$2b\$10\$Z6.gcv/RqQfcB1sWTPaZEu/.aHCUlhzmy/X91KF7WVLcmlzM0oYcu
Geeshan	\$2b\$10\$dZ6d5UAciGMUCvUJvJaxuuBABczTE/WnNQUwEylsptIC77xJx1h.e
hasara	\$2b\$10\$ogy9j/yRh.nfmvqK.ZG0wOBvGcEOFvTzkekgvF2ysLwzpnXbtNAT2
Madush	\$2b\$10\$y2qEWX.BaDpM3sdq4gxli0cuw5vGDr7FdLTmcCuB1FiqSDp3paZbS
Nimali	\$2b\$10\$A3s0.SdsCfpqE7ByKj5NLe5B73KpqNn5.egUY00SAosGbWAtqkD2e
Pasindu	\$2b\$10\$B.YQXChaqYGG0GdoAinkAe08/oWaAPGn8uKi9SY0cj2MPhpgtSfH0

```
Pretty Raw Preview Visualize JSON  [icon]
1  [icon]
2    "success": 1,
3    "message": "Successful Login",
4    "token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VyX25hbWUiOiJTYW1hbiIsIm1hdCI6MTYzNDk2MDQzNn0.
           Q_Swf2z17-CmVURkaapnCCaiBz-00kIJTk0lMwSFIJU",
5    "user_name": "Saman"
6  [icon]
```


Testing



Test	Reason
user signup and user logins	It is important to make sure that the system is only accessible by authorized users with accurate user details
add device and remove device	It is important to make sure that the tables in our database are correctly updated.
select device	It is important to make sure that the devices are only accessible by their owners.

Demonstration

THANK YOU!