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Atlantic
Technological
University

SeizureSafe

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B.Eng. (Hons) Software & Electronic Engineering



Project Overview

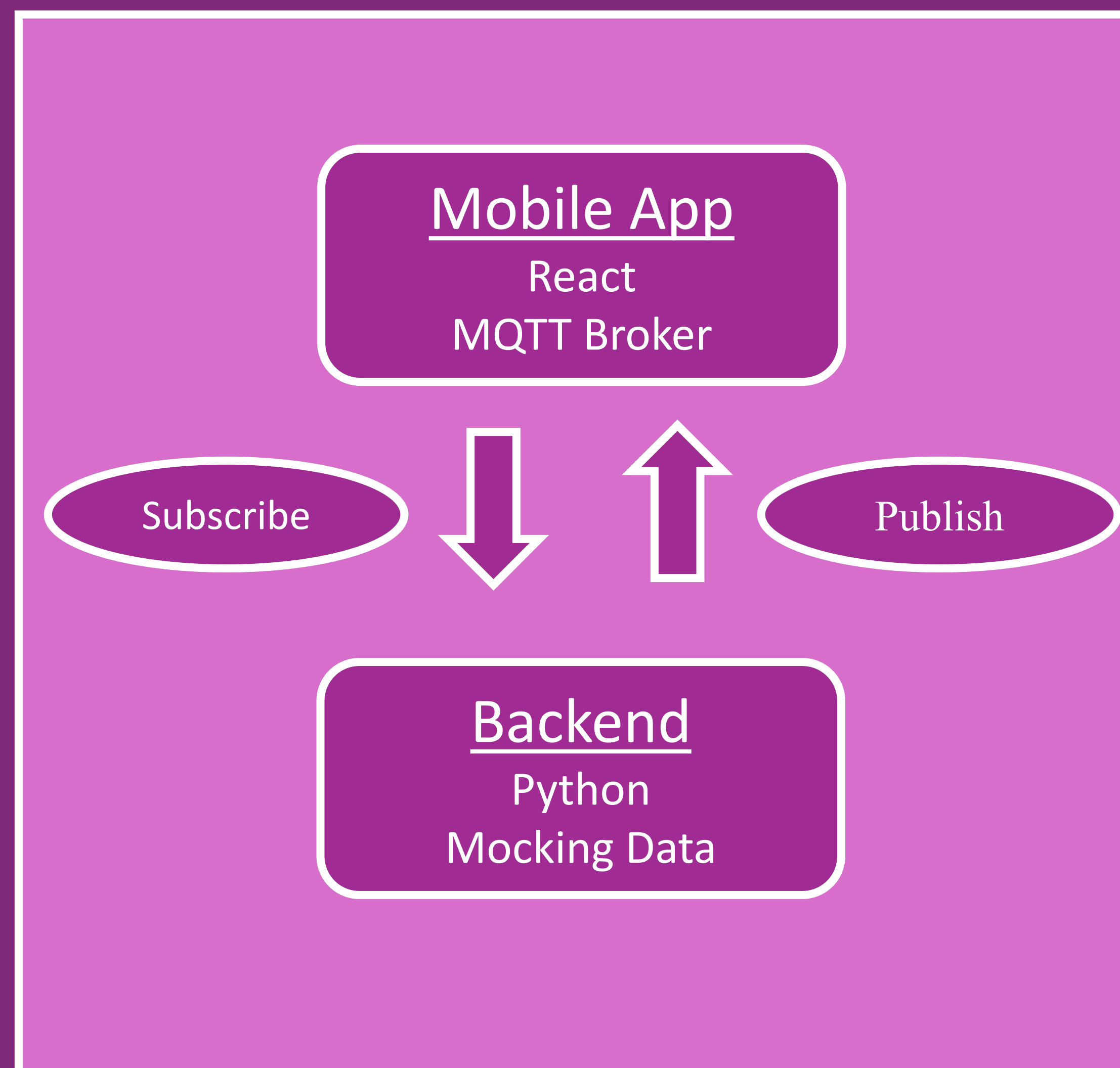
My SeizureSafe Alert system is designed to promote independence for individuals with seizure disorders. The system includes a bracelet that detects a seizure and sends an alert to passers-by by playing a brief message outlining the steps first responders should take to ensure the user's safety and confirm that no harm has occurred during the episode

How It Works

When a seizure is detected through heart rate and fall detection data, an automated alert is sent to nearby bystanders, providing essential guidance on how to assist the individual. For example, the alert will instruct them not to move the patient unless absolutely necessary and to check for any head injuries.

On the app, users will receive a notification with real-time updates on the seizure event. This information will also be recorded in a history log, which can be accessed by the user or shared with healthcare professionals if required. To ensure privacy and security, access to this data will be protected by a secure authentication login.

Architecture Diagram



Features & Languages used

- Python
- React
- MQTT Publish
- Sensor data
- Automated Alerts
- Notifications
- Authentication

Conclusion

After speaking with individuals who have seizure disorders, they expressed that this project would significantly improve their daily lives, especially when they are not with someone who understands their condition and knows how to help. By providing guidance for bystanders on the appropriate steps to take, it could help reduce stress and anxiety for those recovering from a seizure, especially when surrounded by people unsure of how to respond

Project management: Jira

Jira is a project management and issue tracking software developed by Atlassian, used to plan, track, and manage work