# UCL-GOSH
# Data Interchange for Sensors Classifications

COMP0016 Team6:
Daulet Batayev, Henry Ching, Tianang Chen

UCL

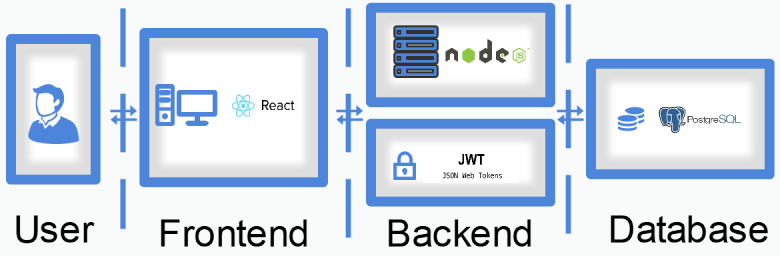
# Introduction

## Abstract

**Great Ormond Street Hospital (GOSH)** is a children's hospital located in the Bloomsbury area of the London Borough of Camden. The main idea of the project is to visualise streaming Infusion Pump data on a customisable, user-friendly dashboard. With this project, the infusion pump dashboard would help clinicians monitor their patients' treatment. These precious data can be useful for tracking the condition and altering the treatment plan of the patient. Being able to review all the collection of data also helps in carrying out researches by the clinicians.

## Tech Stack

- **React** is a stable, efficient, beginner-friendly JavaScript framework, which makes creating a user-friendly, scalable, and dynamically changing interface simple. There are a ton of useful libraries and resources available, and the documentation is very well written. Since React is modern and popular, there will be no problems for incoming developers to maintain the codebase.
- Our backend is being developed with **Node.js**. With the fast processing speed and event-driven architecture, it provides fast synchronization and thus the experience of the application. It is also a lightweight tool which means our application can be more scalable.
- We chose **PostgreSQL** over other relational databases because of many features to protect data integrity and to build fault-tolerant environments in addition to being highly extensible.




We have two main types of users, clinicians and patients. They will be making requests and receive responses from the web app.

# Achievements

| ID | Description | Priority | State | Contributors |
|---|---|---|---|---|
| 1 | Dashboard for visualising the patient infusion pump data over time. | Must | | |
| 2 | Types of graphs to choose from on the dashboard | Must | | |
| 3 | Target feed and Actual feed comparison on the graph. | Must | | |
| 4 | FHIR Standards to ensure the secure transfer of data over a network. | Must | | |
| 5 | Secure and Reliable Authorisation System. | Must | | |
| 6 | Basic info page of the patient. | Must | | |
| 7 | Data will be stored permanently. | Must | | |
| 8 | Make changes to the patient's treatment plan (Clinician Only). | Must | | |

# Achievements

| ID | Description | Priority | State | Contributors |
|---|---|---|---|---|
| 9 | A list of patients who are being treated by the clinician (Clinician Only). | Should | | |
| 10 | Notifications/Alerts when the feed is abnormally high/low. | Should | | |
| 11 | Different visualising methods to choose. | Should | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# Achievements

| ID | Description | Priority | State | Contributors |
|---|---|---|---|---|
| 12 | Deduce patterns from historical data. | Could | | |
| 13 | Patients reporting the reasons for large gaps between target and actual feed. | Could | | |
| 14 | Clinicians could update the records of the patients. | Could | | |
| | | | | |
| | | | | |
| | | | | |
| 15 | Registration Page | Won't | | |
| 16 | Data Removal | Won't | | |
| | | Key Functionalities : | | |
| | | Optional Functionalities : | | |

# Contribution

| Part of Project | Daulet Batayev | Henry Ching | Tianang Chen |
|---|---|---|---|
| Client Liasion | | | |
| Requirement Analysis | | | |
| Research | | | |
| UI Design | | | |
| Prototyping | | | |
| Programming | | | |
| Documentation | | | |
| Presentation | | | |
| Blog | | | |
| Testing | | | |
| Bi-Weekly Reports | | | |
| Project Website | | | |
| Poster Design | | | |
| Video Editing | | | |

# Contribution

| | Daulet Batayev | Henry Ching | Tianang Chen |
|---|---|---|---|
| Overall Contribution | | | |
| Main Roles | | | |