

**Progress Report 1：**

**Requirement Analysis**

**Team 14: GOSH: App for child growth charts in R**

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**COMP103P Applied Software Development**

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**Client and Project Background:**

Our project lead client is Professor Tim Cole, a professor of medical statistics at UCL Institute of Child Health. His main area of research covers many aspects of child growth assessment, which includes growth chart construction and centile graphs.

Growth is an important aspect for a child’s development, it can show any early signs of diseases or how a child responds to treatment. Generally, growth was recorded using paper charts and recently this process is moving to plotting these points digitally. This means that it is easier to determine which centiles a child lies in.

**Problem and Project Goal:**

The current problem is that generating these growth charts are complex as there are other factors that can affect growth, such as sex (boys and girls), ethnicity etc. The project goal is to create an application to eliminate paper-based growth charts.

**Persona:**

Typical users who would use this application would be health centres so that they can monitor the growth of their patients when children come in for their routine check-up. The application could be extended in the future so that any user can use the application so parents can produce their own growth charts for their children.

**Requirements (MoSCoW format):**

**Must Have:**

1. The application must allow plotting of serial measurements of an individual on a normal growth chart with centile detection.
2. The application must be able to plot height and weight growth charts.
3. The application must be able to have web app functionality.
4. The application must be able to use GOSH’s data to produce growth charts.

**Should Have:**

1. The application should be able to show some sort of growth trajectory using the data that is inputted.
2. The application should be integrated with SMART on FHIR so it can be compatible with any health centre that uses SMART on FHIR for their data storage.

**Could Have:**

1. The application could have some functionality to output data to files or in a pdf format.
2. The application could have some functionality for data security.
3. The application could have some functionality for the application to run in a mobile browser.

**Won’t Have:**

1. The application will only be able to be used by health centres and not by other people in the general public.
2. The application won’t have any functionality for cloud storage.