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

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Client: Professor Tim Cole

Abstract

- Project type: R Project

- 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.

- Front End Technology: R, RShiny

- Back End Technology: Not Applicable

- Web Hosting: Shiny Server

Achievement

ID	Requirements	Priority	State	Contributors
1	Plotting of serial measurements of an individual on a normal growth chart with centile detection	Must	✓	All
2	Plot height and weight growth charts	Must	✓	All
3	Have web app functionality	Must	✓	All
4	Use GOSH's data to produce growth charts	Must	✓	All
5	Show some sort of growth trajectory using the data that is inputted	Should	✓	Rajan
6	Integrated with SMART on FHIR so it can be compatible with any health centre that uses SMART on FHIR for their data storage	Should	X	All
7	Have some functionality to output data to files or in a pdf format	Could	X	All
8	Have some functionality for data security	Could	X	All
9	Have some functionality for the application to run in a mobile browser	Could	✓	All
Key Functionalities (must have and should have)		**83%** completed		
Optional Functionalities (could have)		**33%** completed		

Contribution Distribution

Work packages	Rajan	Saleh	Sander
Client liaison	33%	33%	33%
Requirement analysis	33%	33%	33%
Research	20%	40%	40%
UI Design	25%	50%	25%
Programming	40%	30%	30%
Testing	33%	33%	33%
Progress Report	33%	33%	33%
Technical Report	33%	33%	33%
Poster Design	0%	0%	100%
Video Editing	0%	100%	0%
Overall contribution	40%	30%	30%
Roles	Report Editor, Programmer, Front End Developer	UI Designer, Researcher, Programmer	Report Editor, Programmer, Tester

Application URL

- https://ucl-cs-team14.shinyapps.io/GrowthCharts/