



**Knight Foundation
School of Computing
and Information Sciences**

Knight Foundation School of Computing and Information Sciences

Spring 2023 Capstone 2 Project

Baby Feed

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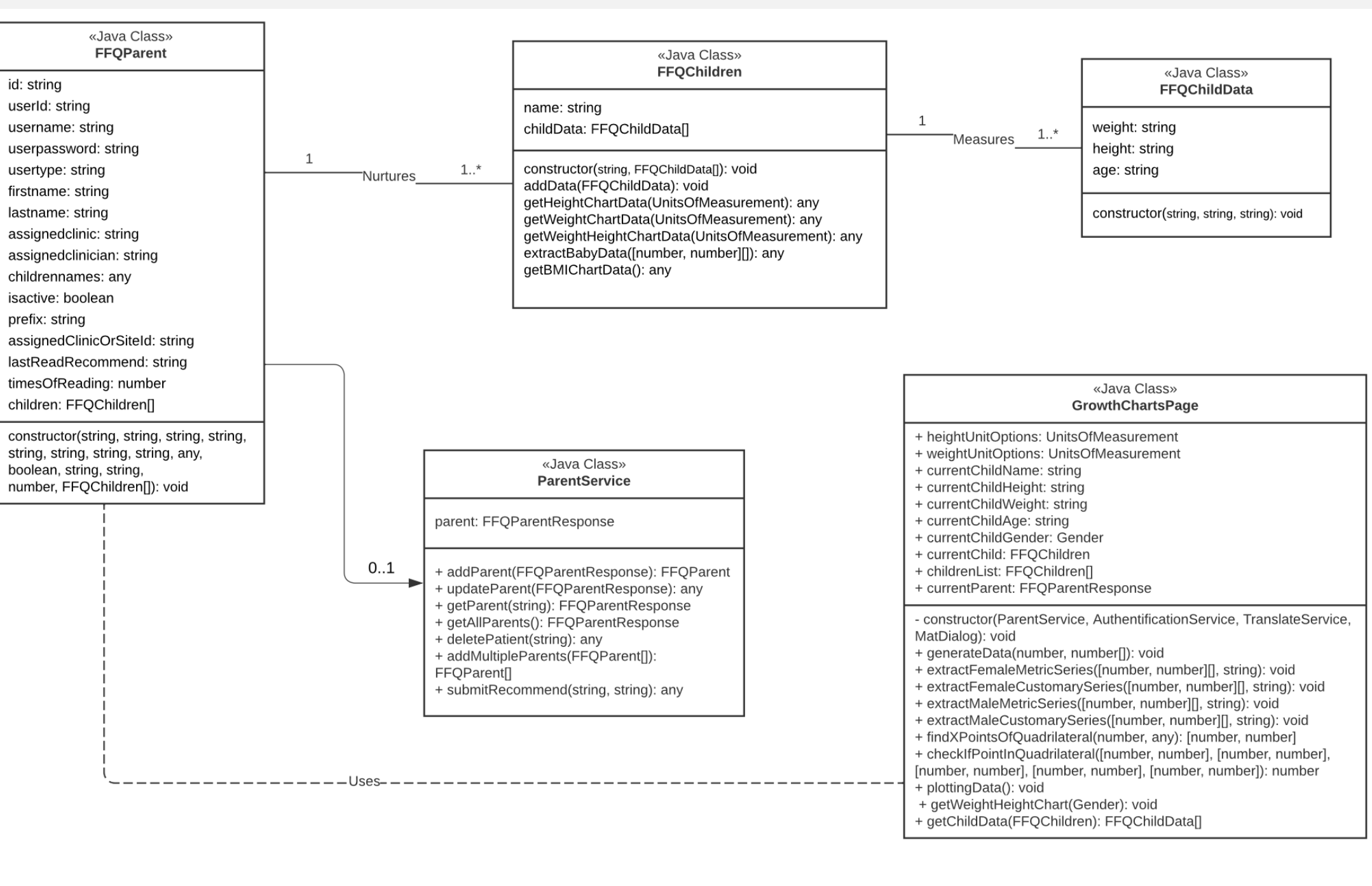
Instructor: Dr. Masoud Sadjadi, Florida International University



PROBLEM

Baby Feed is a website that allows parents to track their baby's growth and access nutrition resources. The goal of this project is to prevent child obesity by educating parents about proper nutrition and providing them with tools to quickly determine whether their infant is receiving enough nutrients and growing at a healthy rate.

SYSTEM DESIGN



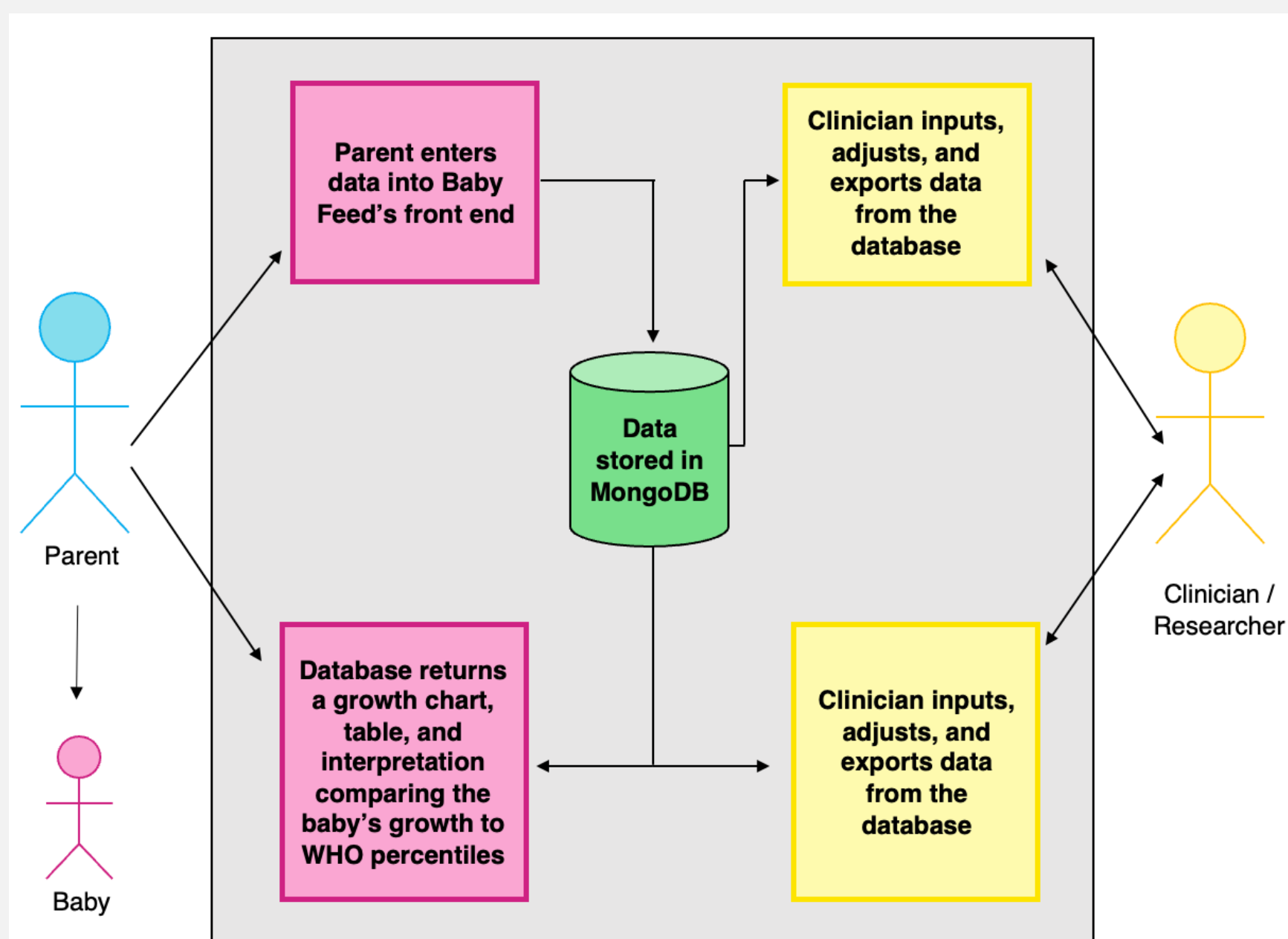
VERIFICATION

- Automated Azure Pipelines checks
- Postman used to test Backend service modifications
- Google Chrome and Chrome Developer Tools used to test the Web App and UI
- Integration, Regression and Exploratory testing techniques were utilized

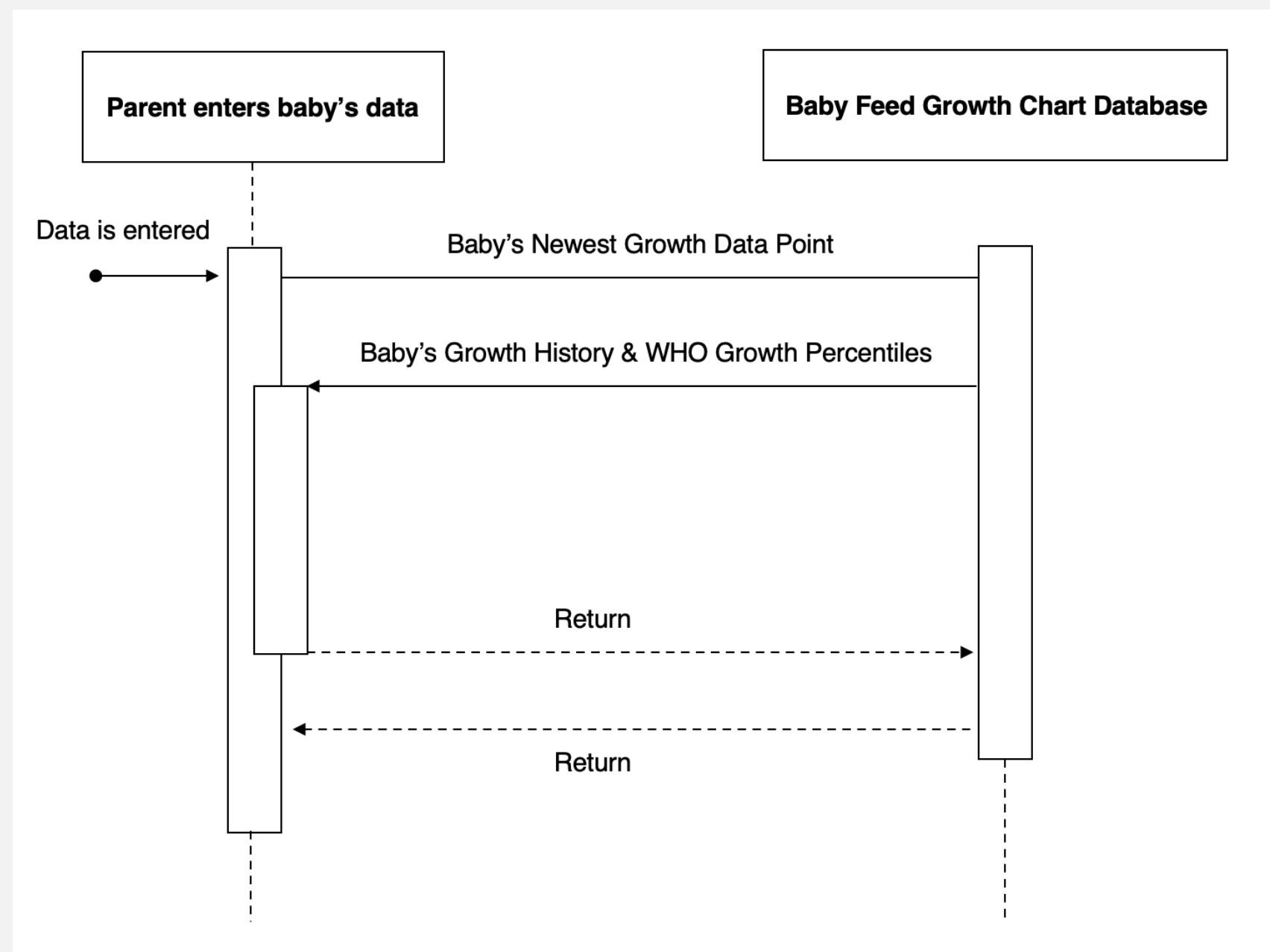
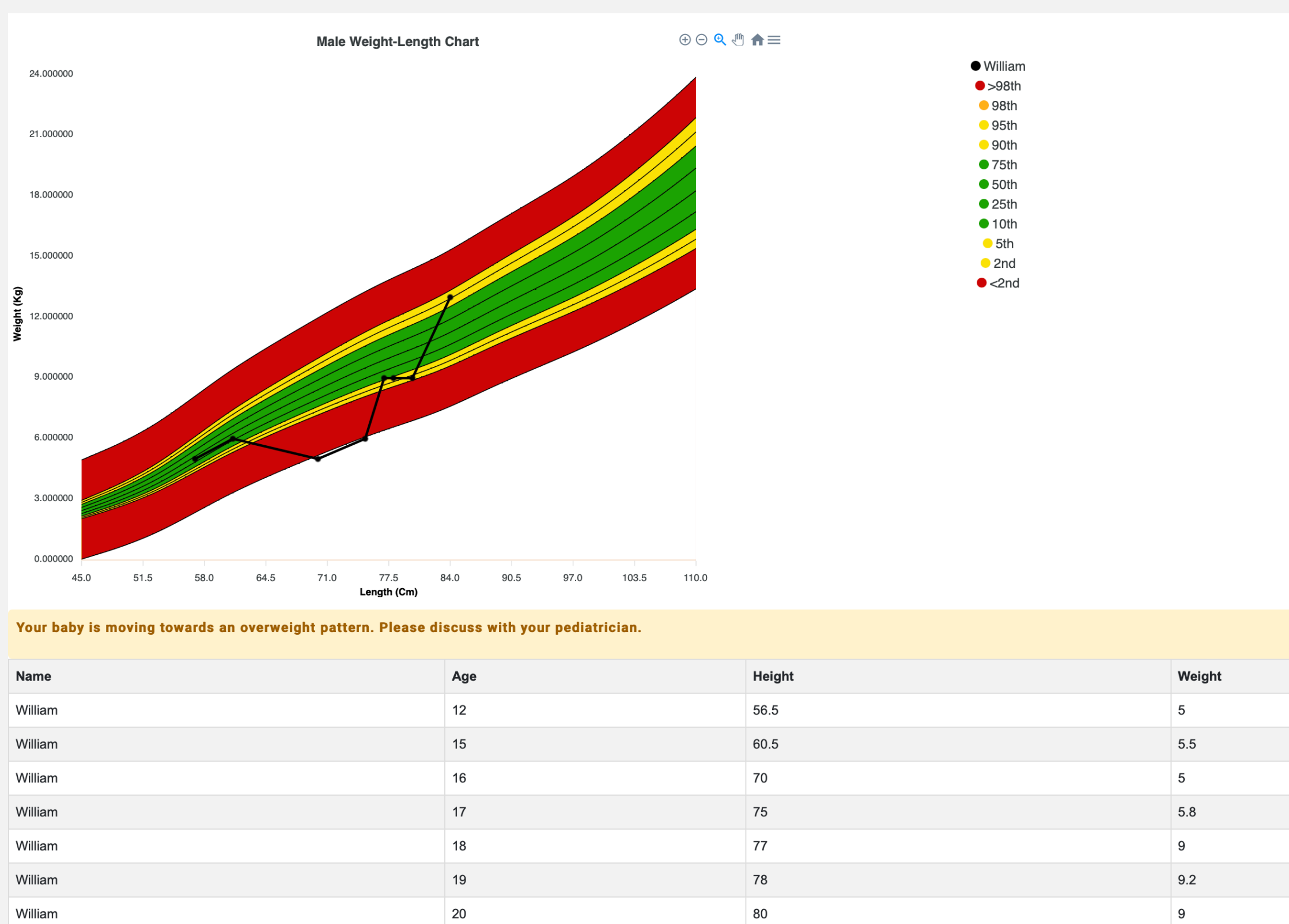
CURRENT SYSTEM

The website contains a fully functional parent portal with tabs for the questionnaire, recommendations, tracking forms, growth charts, and other resources. Within the growth charts tab, parents enter the child's data to see how the baby's growth compares to WHO percentiles. The chart is also accompanied by an interpretation stating whether the child's growth pattern is underweight, healthy, or overweight.

OBJECT DESIGN



SCREENSHOTS



REQUIREMENTS

- Make chart formatting more user-friendly
- Add red, yellow, and green shading on weight-length growth chart
- Update percentile values to match WHO values
- Add table to summarize data points in growth chart
- Create Other Resources tab

IMPLEMENTATION

- Web app and its modifications implemented using Angular, TypeScript, and Spring Java framework
- Web App deployed as Azure Storage Account with custom domain and Azure CDN in front. Microservices deployed on Azure Services
- Data creation and manipulation implemented using MongoDB

SUMMARY

- Migrated from ngx-charts library to ApexCharts library
- Improved chart formatting
- Added red, yellow, and green shading to weight-length growth chart
- Implemented lbs/in to kg/cm conversion
- Fixed WHO backend data for weight-length percentile values in growth chart

ACKNOWLEDGEMENT

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