

MICHIGAN STATE

U N I V E R S I T Y

Project Plan
Humana Kids
The Capstone Experience

Team Humana

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*From Students...
...to Professionals*

Functional Specifications

- Android App
 - Provide children an unobtrusive environment that promotes healthy living
- Web App for Parents
 - To see child's survey responses and healthy tips
 - Display health trends of child
- Web App for Admins
 - To see usage statistics of Humana Kids community

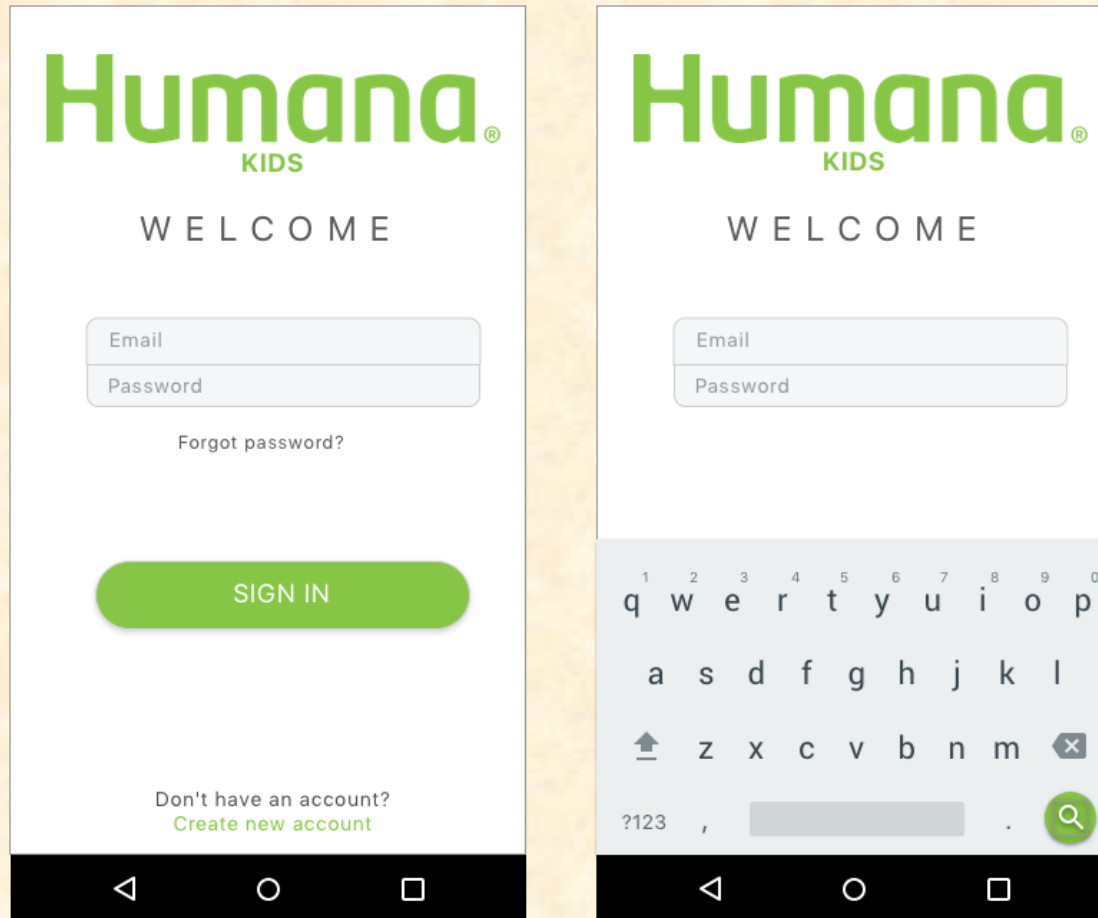


Design Specifications

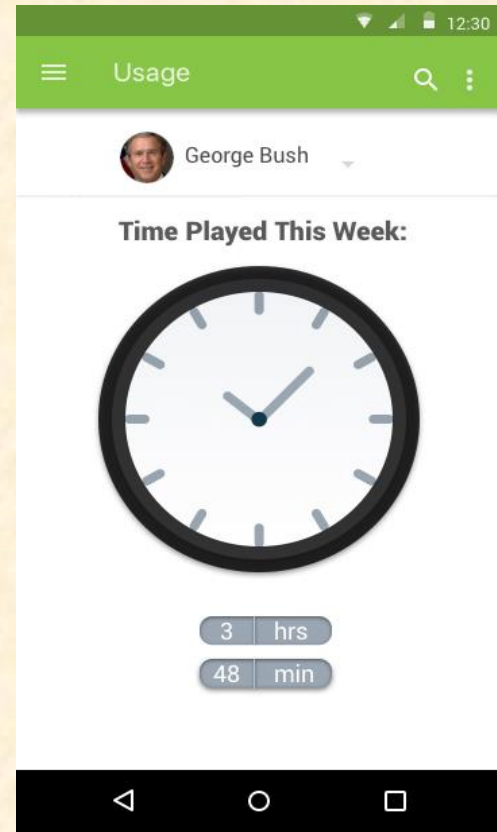
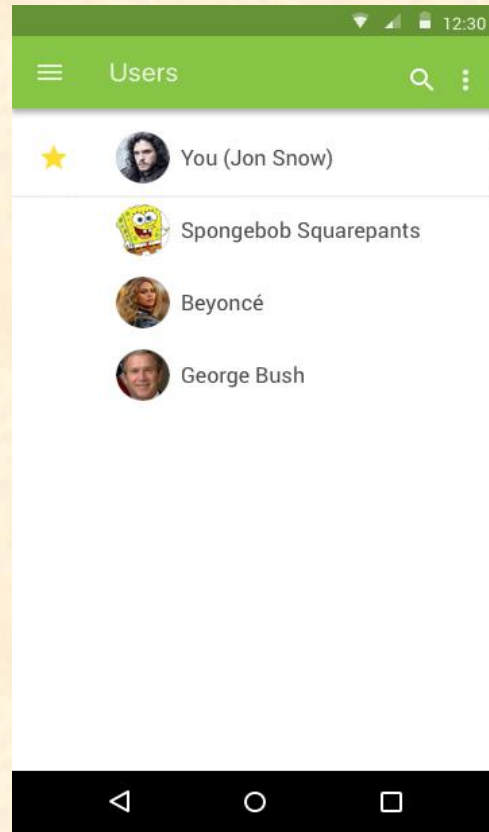
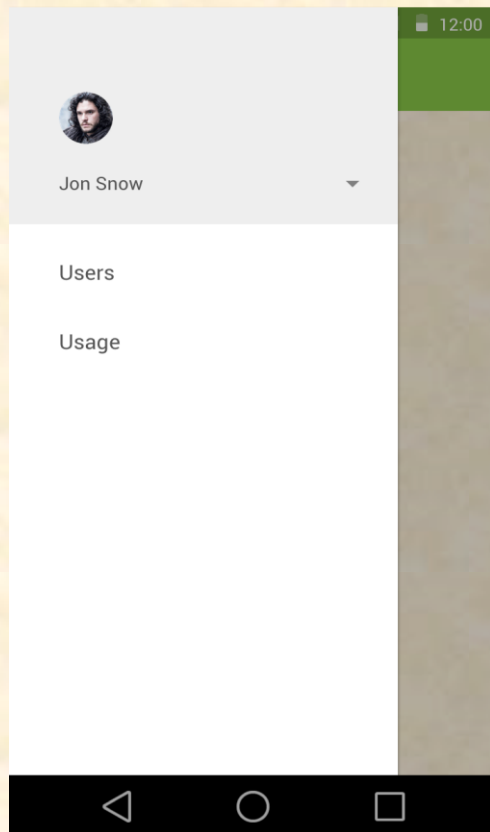
- Android App
 - Surveys, tips, & challenges appear during usage
 - App runs in background
- Web Apps
 - Parent
 - Graphs for parent to visualize child's health trends
 - Receive health tips and recipes
 - Humana Admin
 - Graphs about user trends



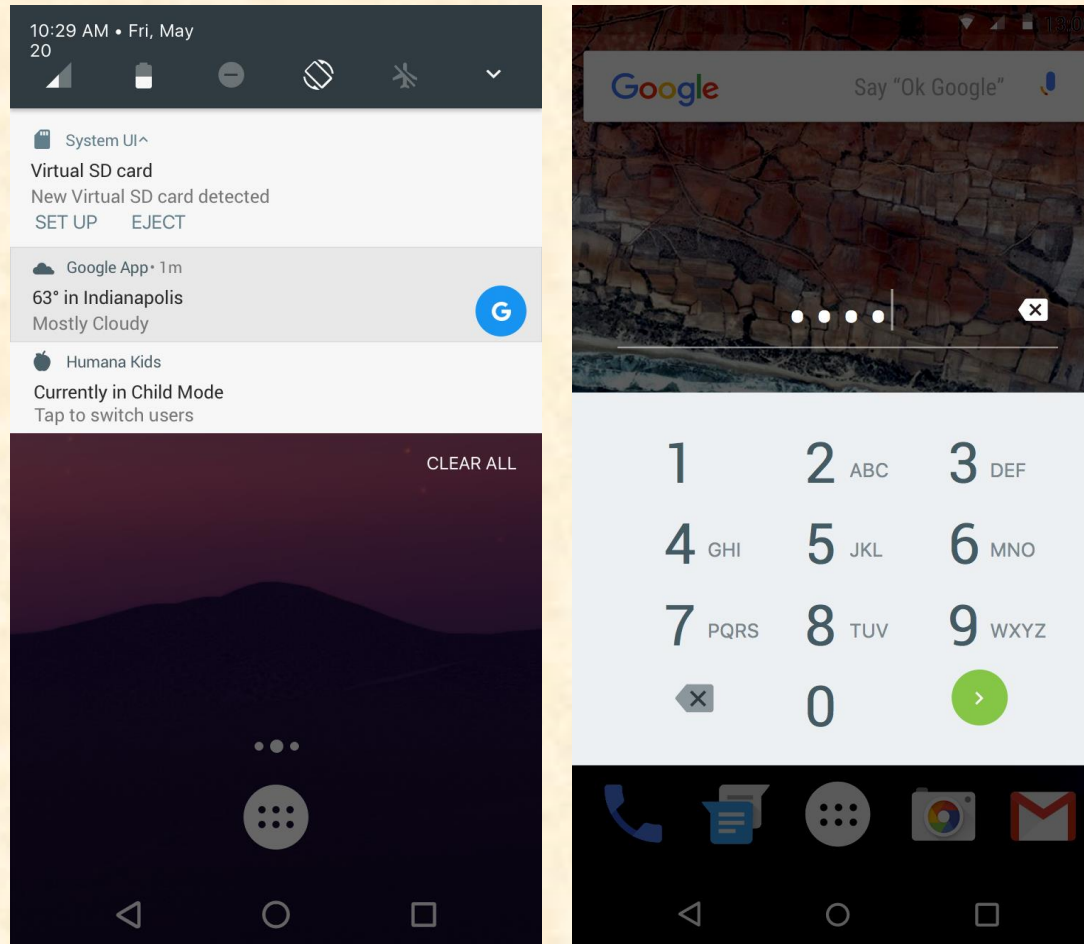
Screen Mockup: App Home Screen



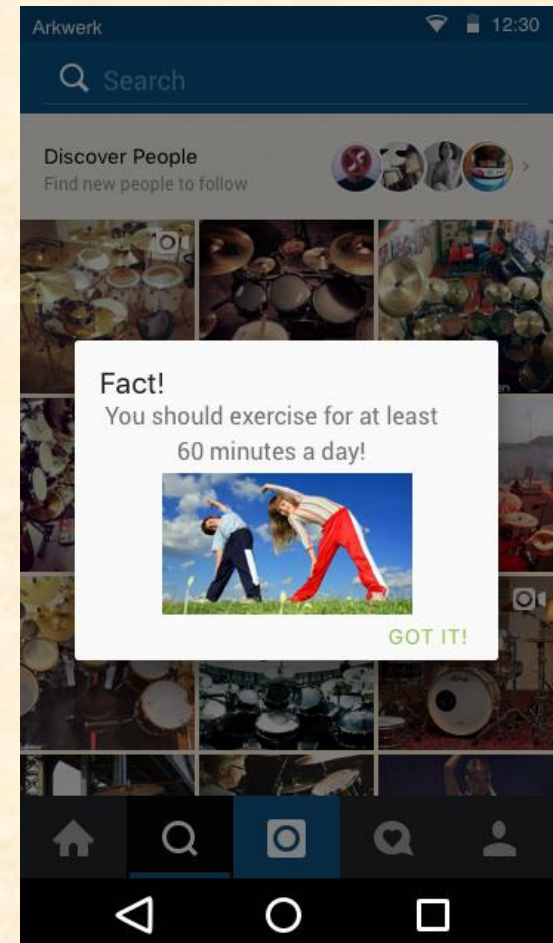
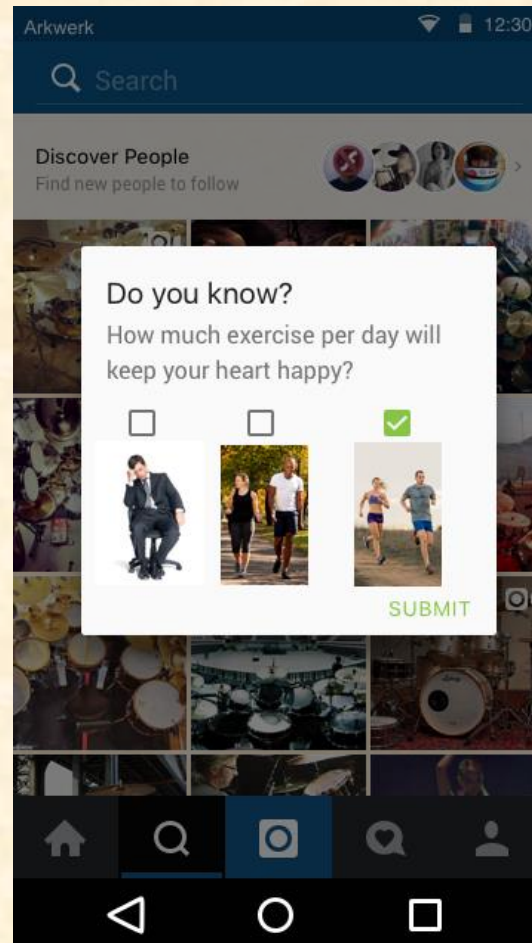
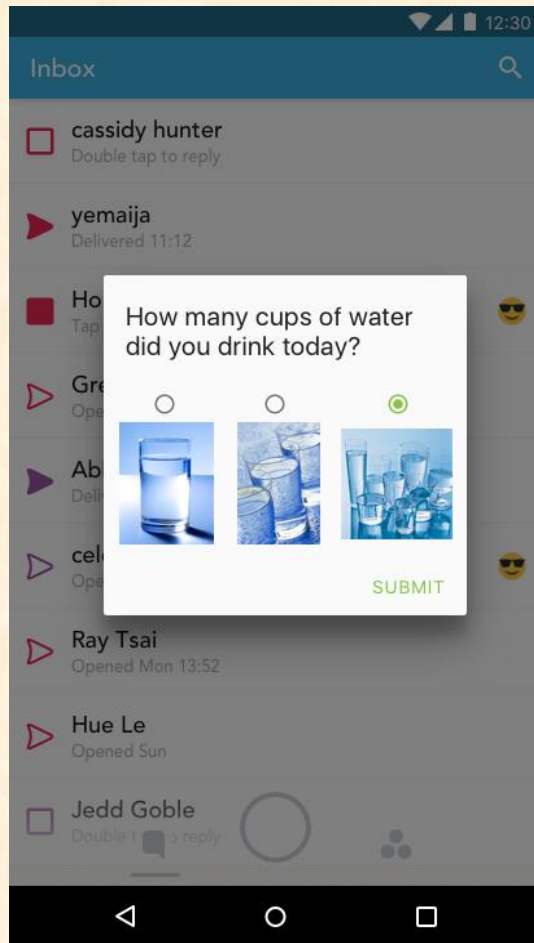
Screen Mockup: Humana Kids Home



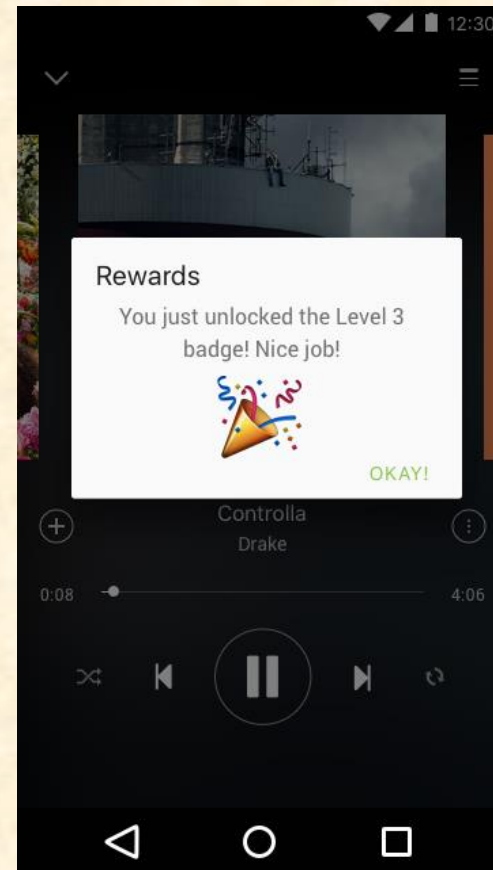
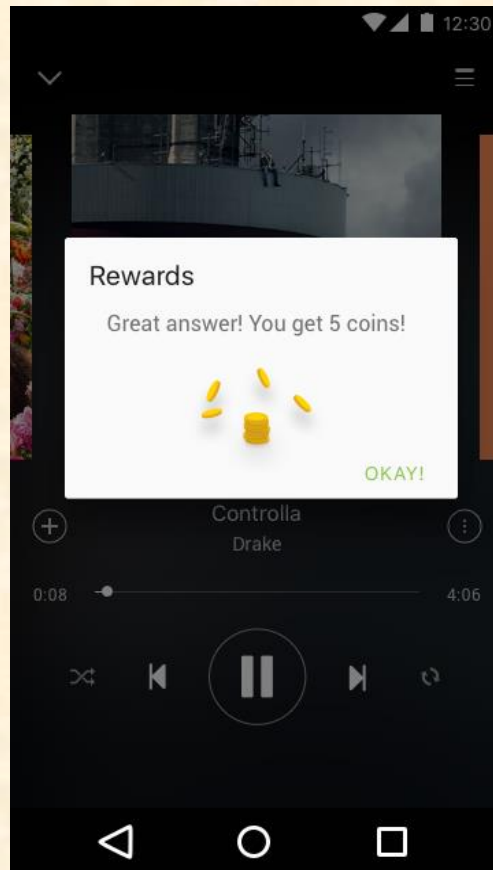
Screen Mockup: Locked Mode



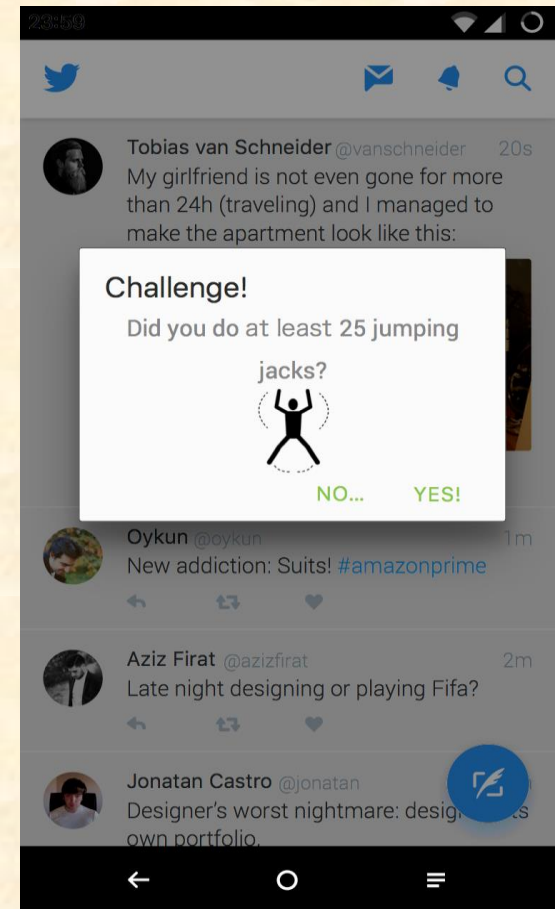
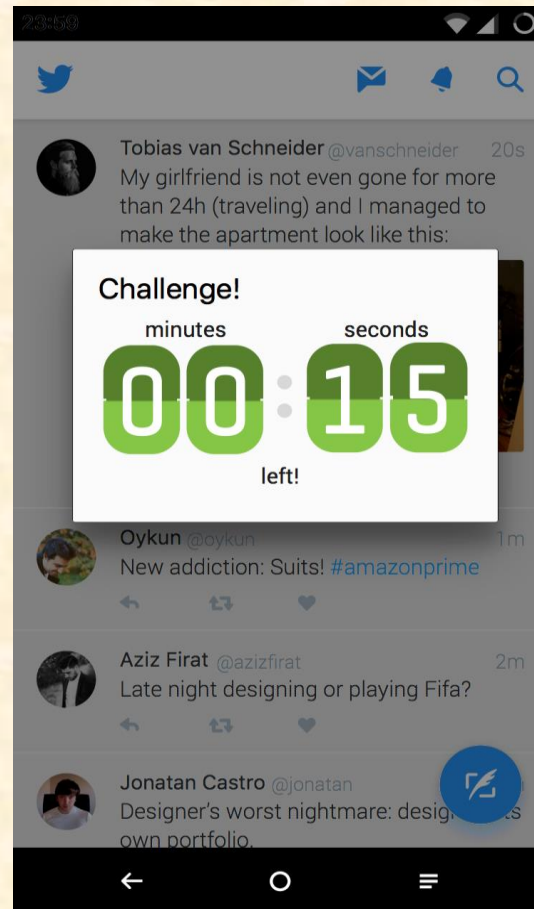
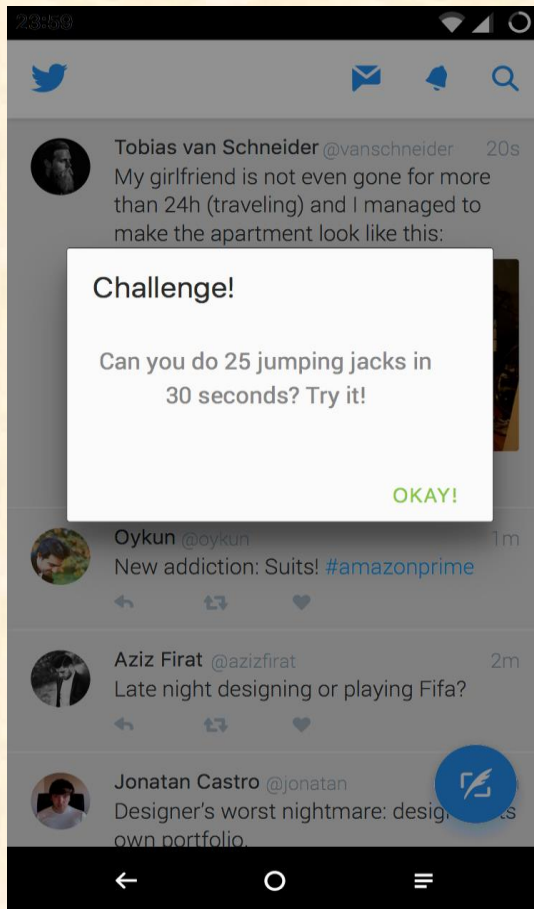
Screen Mockup: Survey/Quiz Pop-ups



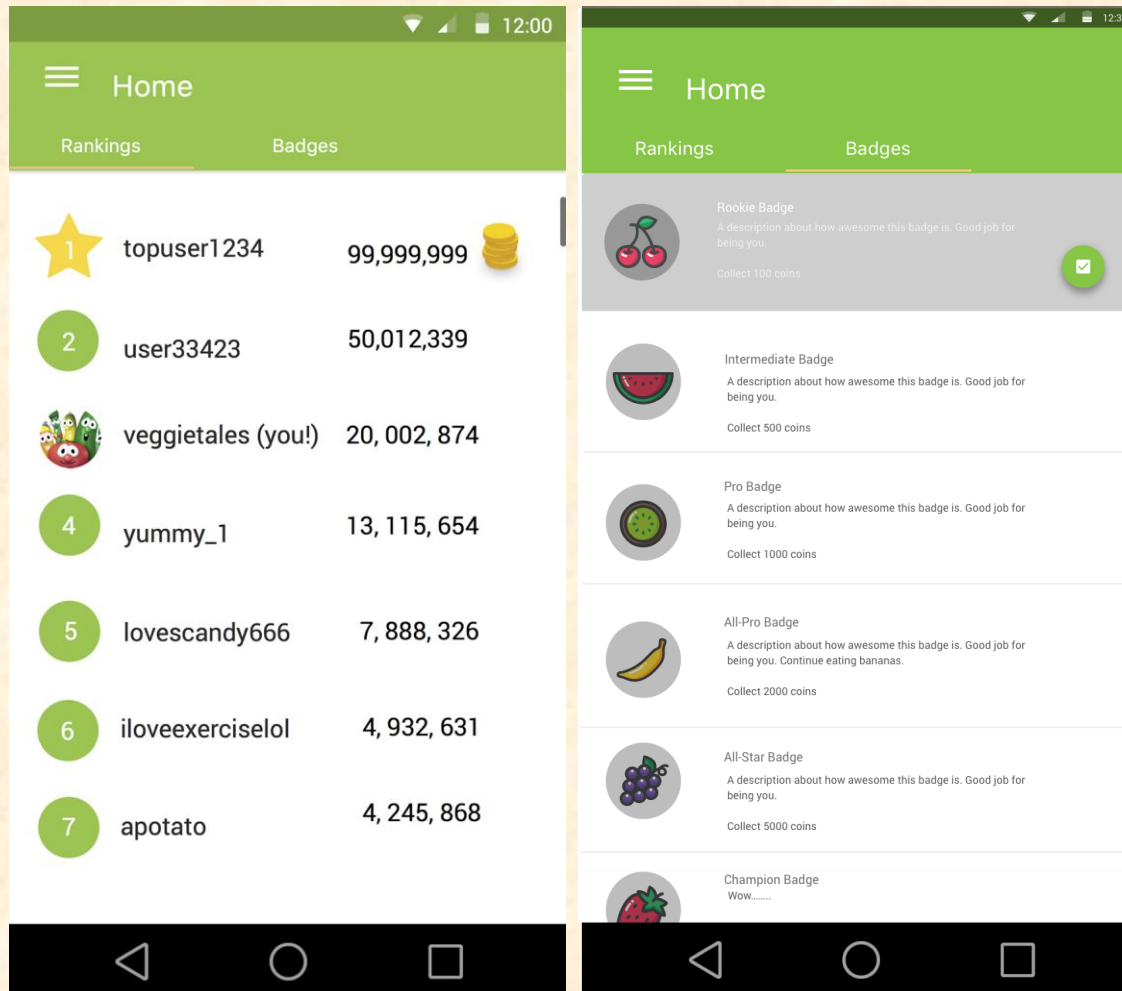
Screen Mockup: Rewards



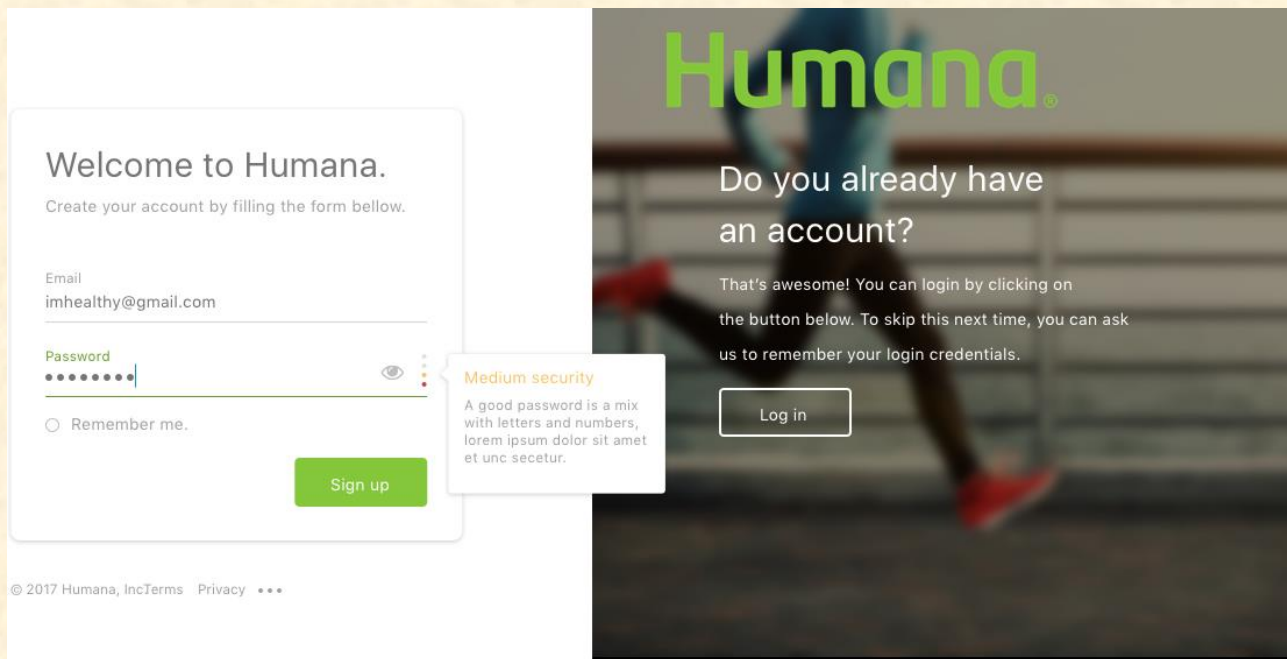
Screen Mockup: Blocking



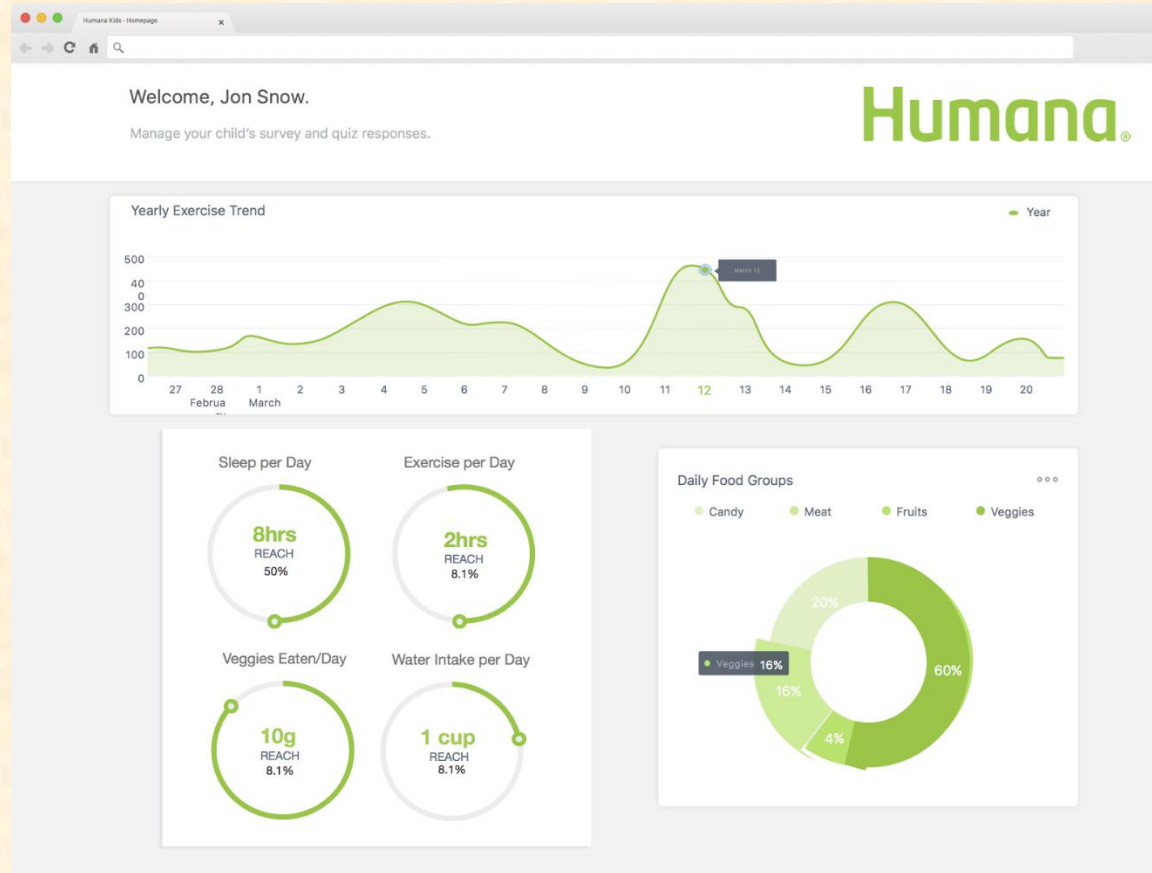
Screen Mockup: Child Views



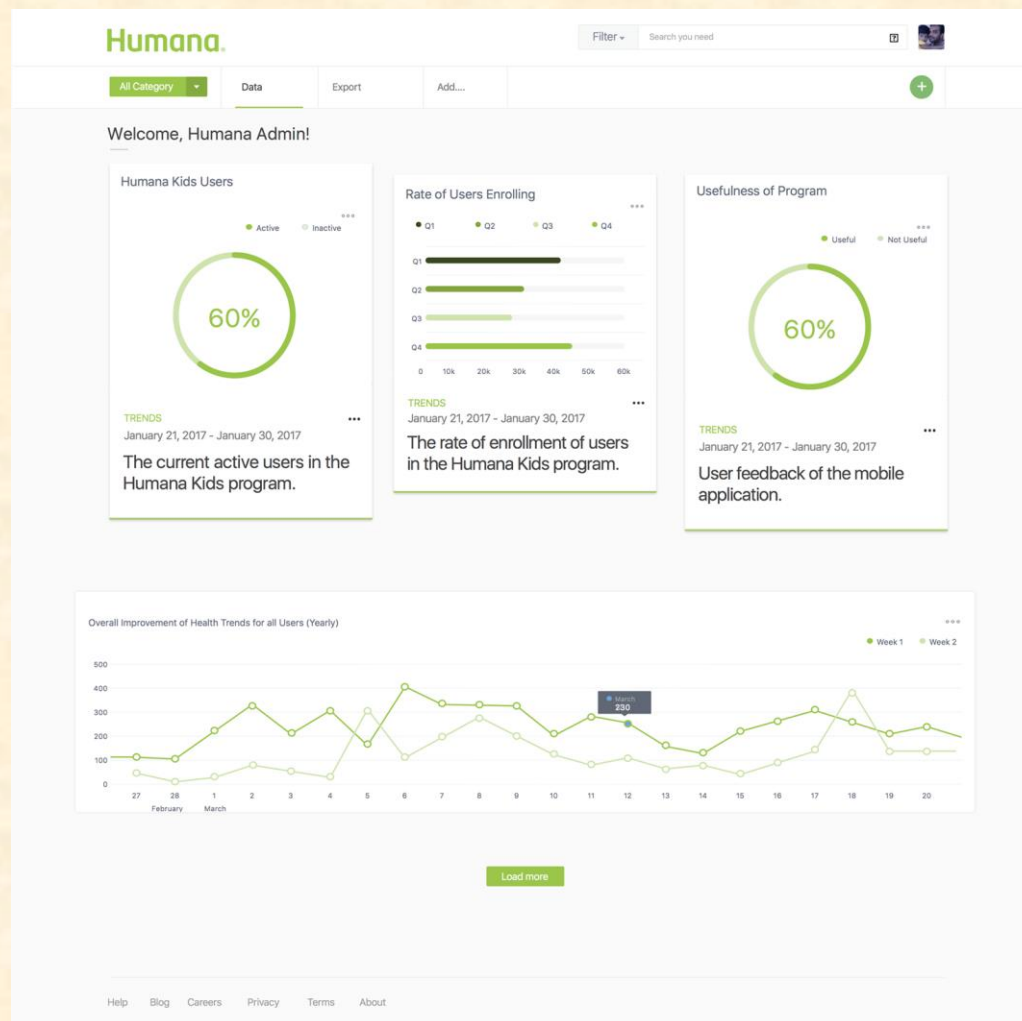
Screen Mockup: Web App (Parent)



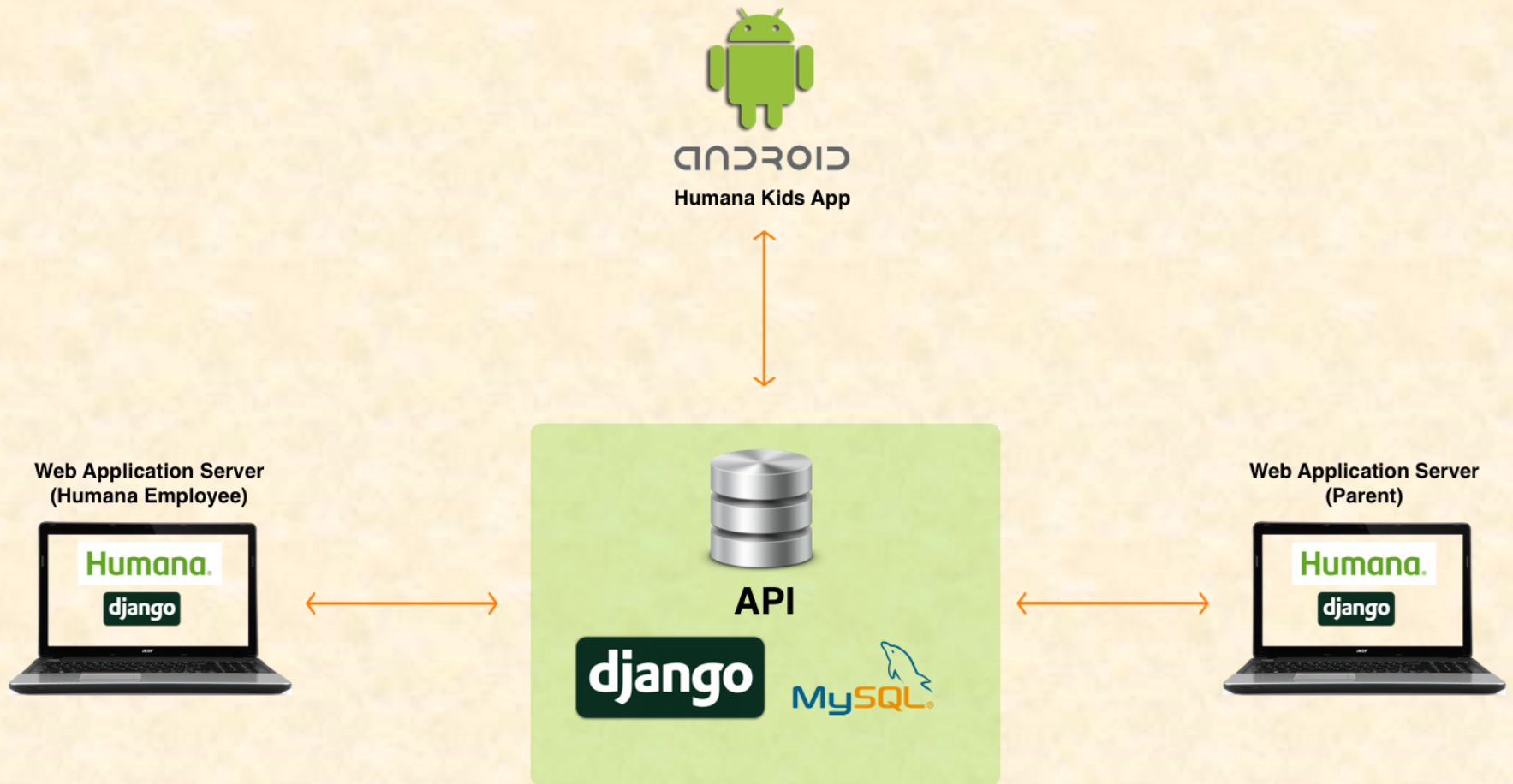
Screen Mockup: Web App (Parent)



Screen Mockup: Web App (Admin)



Screen Mockup: Web App (Admin)

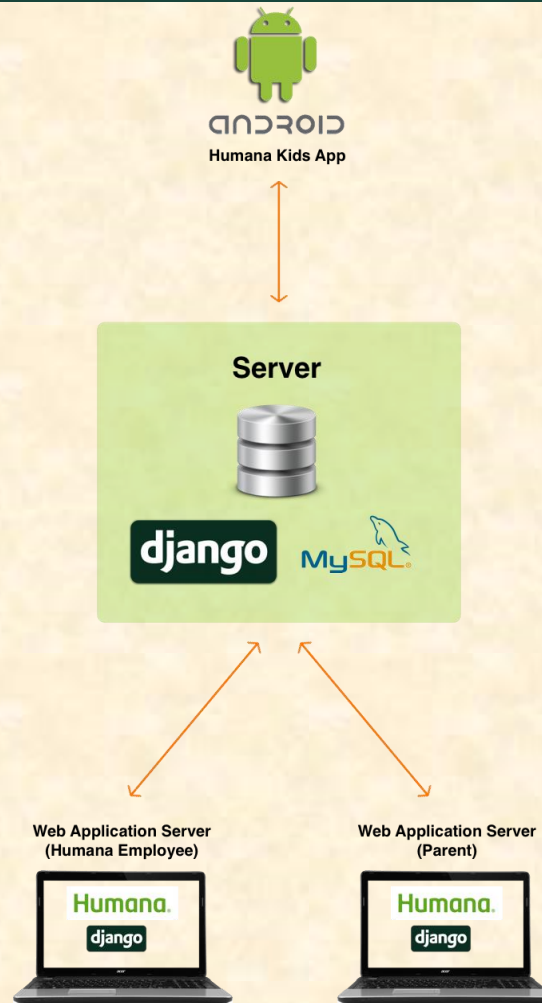


Technical Specifications

- MySQL Server
 - Django API Web Service
- Android 'Humana Kids' App
 - HTTP Requests to API
 - Running in Background
- Web Apps
 - Django Web Framework
 - HTTP Requests to API
 - Present data using JavaScript libraries



System Architecture



System Components

- Hardware Platforms
 - MySQL server on Ubuntu System
- Software Platforms / Technologies
 - Android (API 21+ Lollipop)
 - Web Apps – Python/Django
 - Database API - Django



Testing

- Android Unit Testing Framework
- Django “unittest” module
- Using sample data for web apps



Risks

- (Incorporation Machine Learning in an efficient way)
 - Humana asked us to use machine learning on the survey responses to give targeted information to the child and parent.
 - Understand how machine learning works and talk to experienced peers about how to use it effectively.
- (Having the Android App run in the background)
 - The app needs to run in the background while prompting the user to take surveys and track the child's usage.
 - Working on creating notifications and pop-ups while in the background.
- (Getting accurate health trends on the child)
 - The children are ages 6-12 and it is hard to get accurate information from them.
 - Have the parents verify the child's answers and make the question
- (To allow multiple child accounts per device)
 - Multiple children can use the same device and we need to survey them all.
 - Create an account for each child. Survey them after a period of usage.



Questions?

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