

Behaviour Support App

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Background

St Ann's School

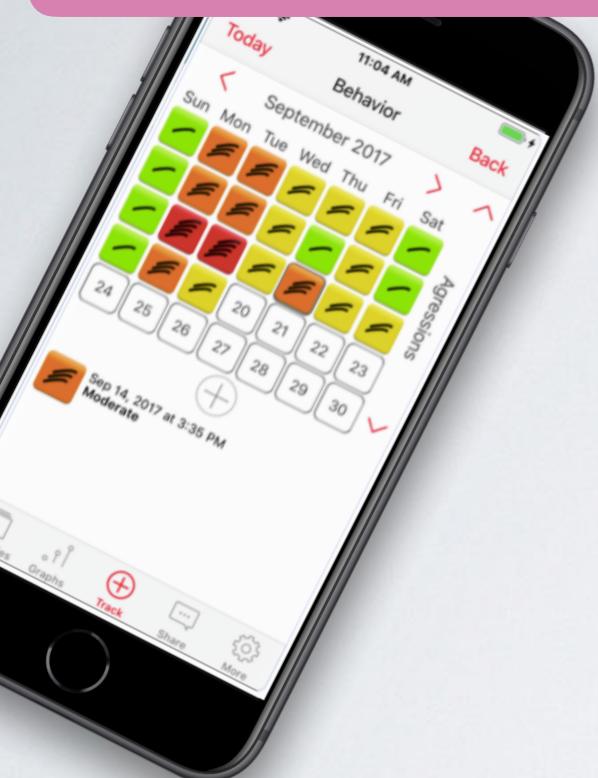


Current System

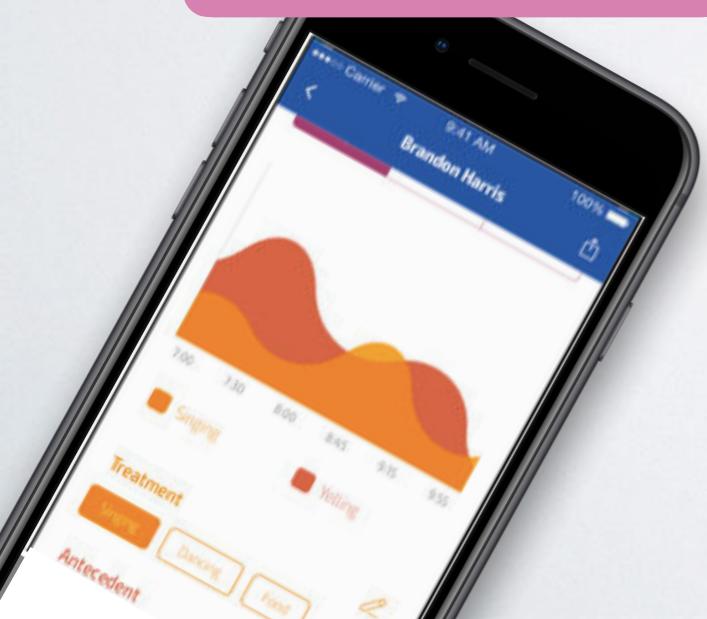


Existing Apps

Autism Tracker Pro



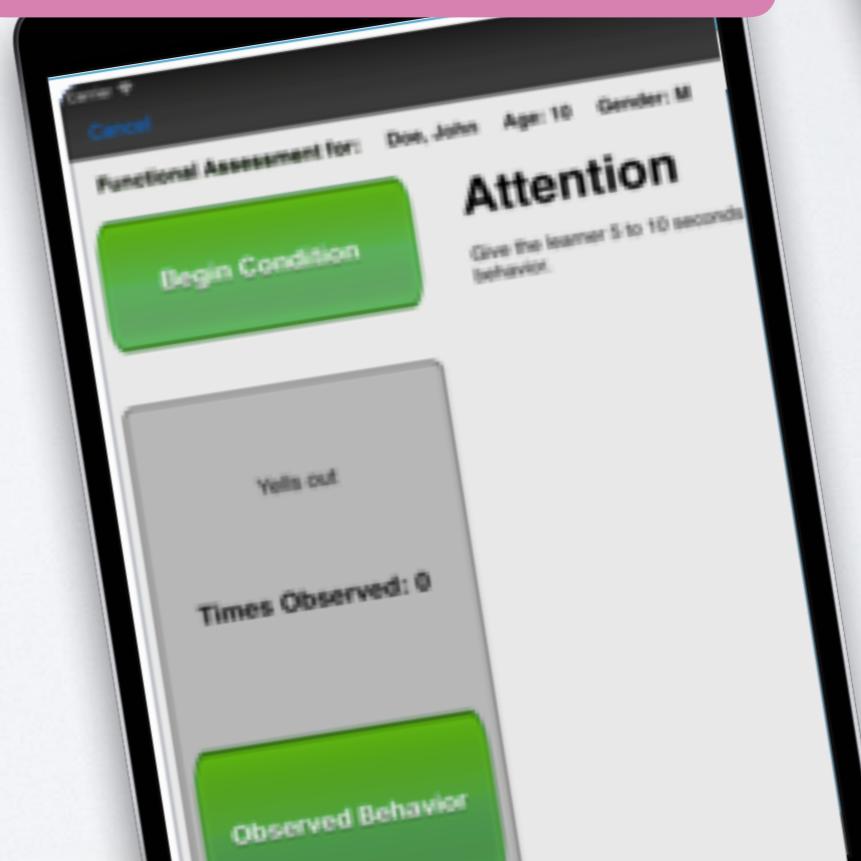
Best Behaviour



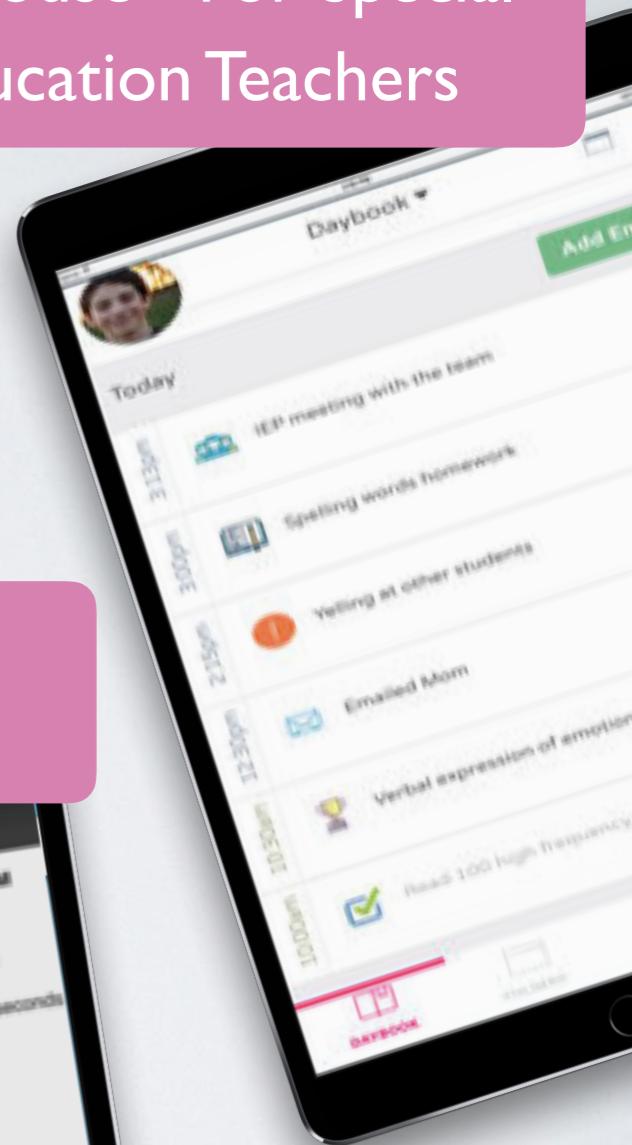
Nulite Behaviour Tracker
for Special Education



Functional Behaviour
Assessment Wizard

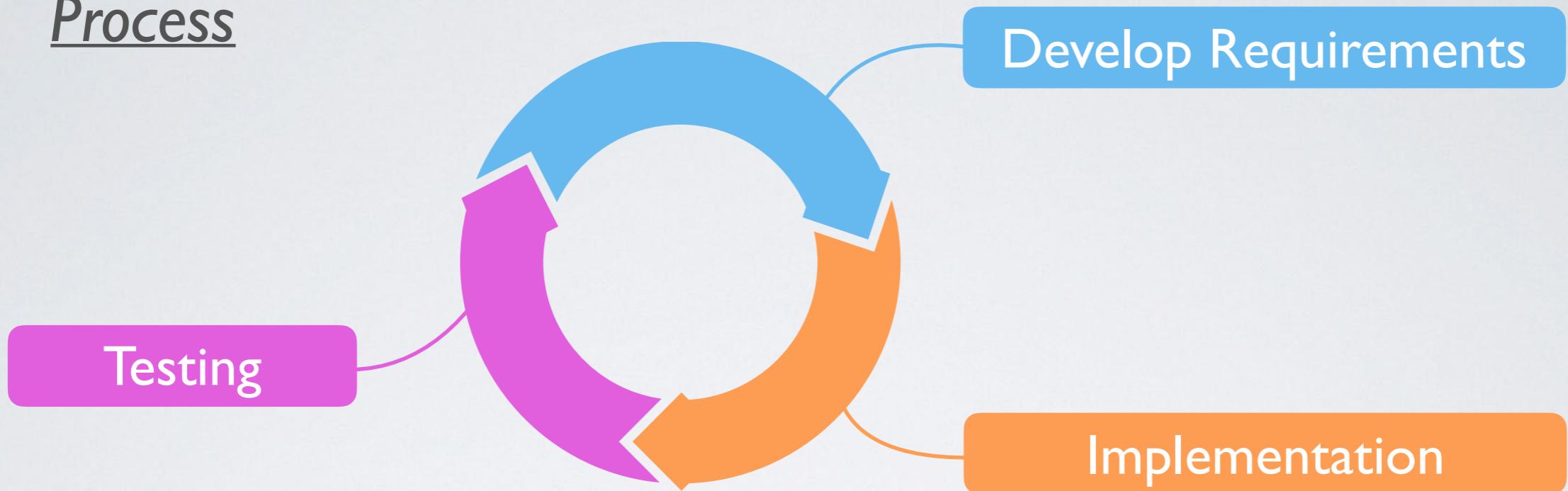


Birdhouse - For Special
Education Teachers



Approach

Process



Timeline

Main Requirements Development

Main Implementation

User-Experience Evaluation

Usability Testing

v1.0 Complete

v1.1

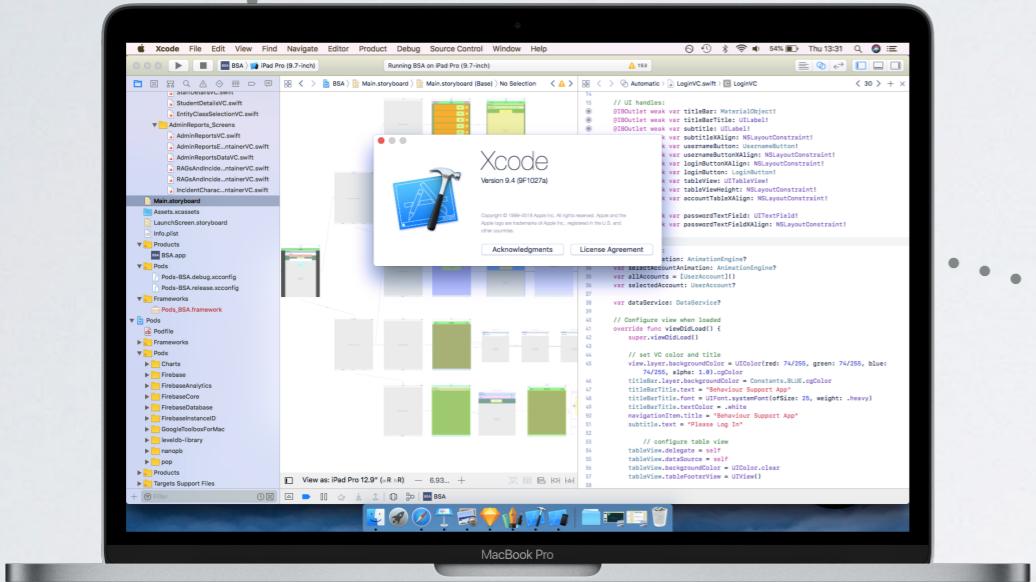
July 2018

August 2018

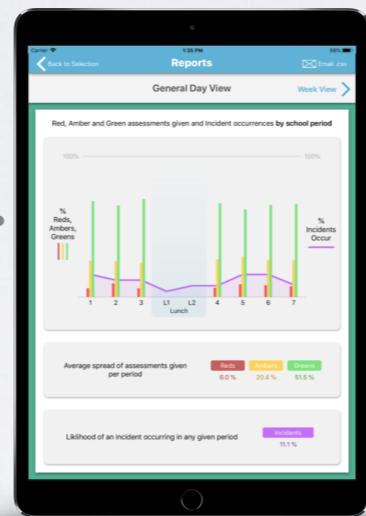
Development Framework



Swift 4 & CocoaTouch



Xcode



iOS



NoSQL

Front-End: Native iOS Tools

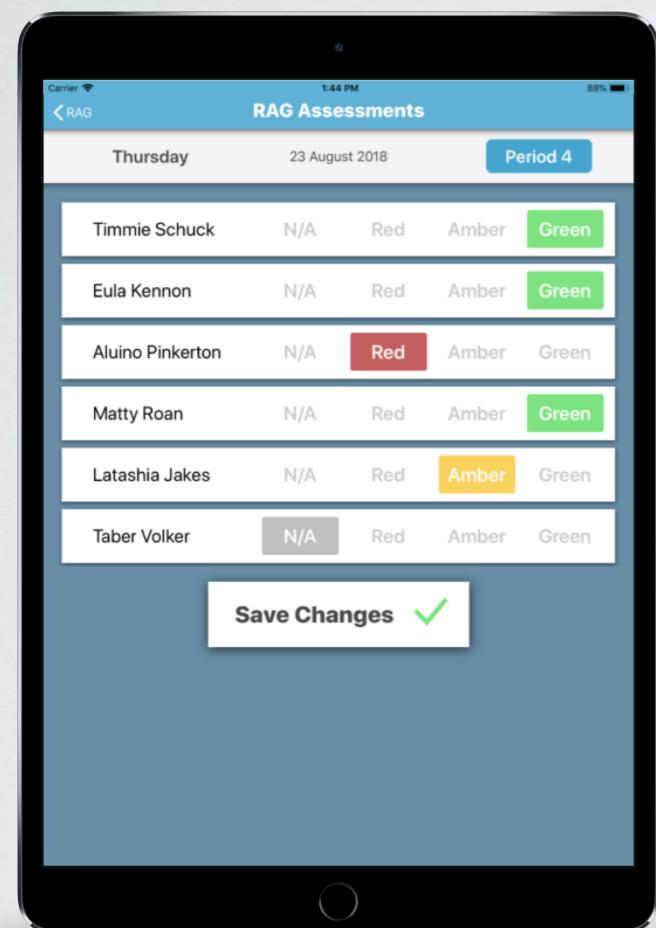
- Powerful
- Fast
- Secure

Back-End: Cloud Service

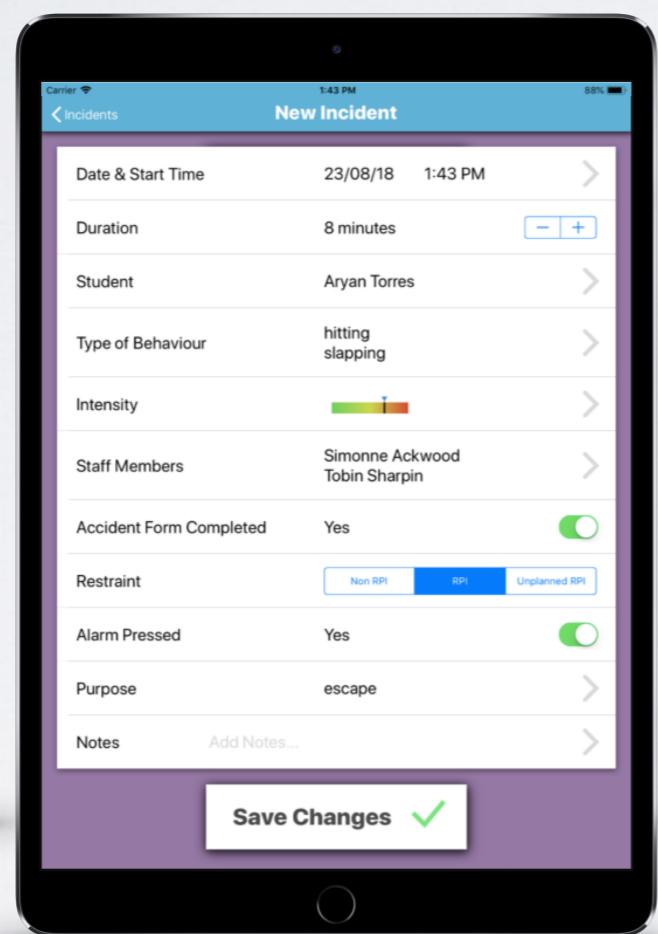
- Multi-Access
- High Availability
- High Scalability

Main Features

RAG Assessments



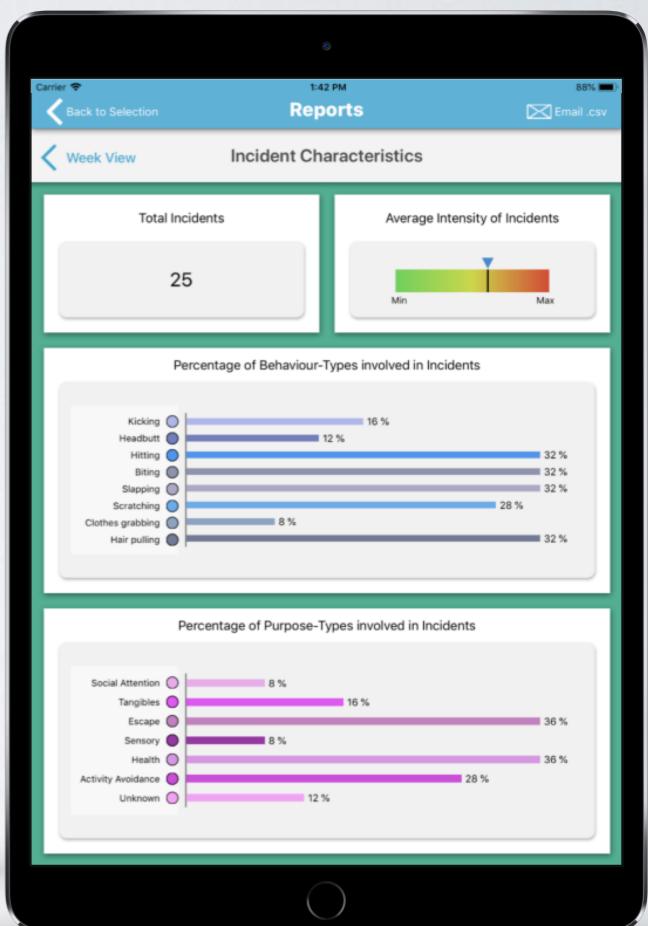
Incident Form



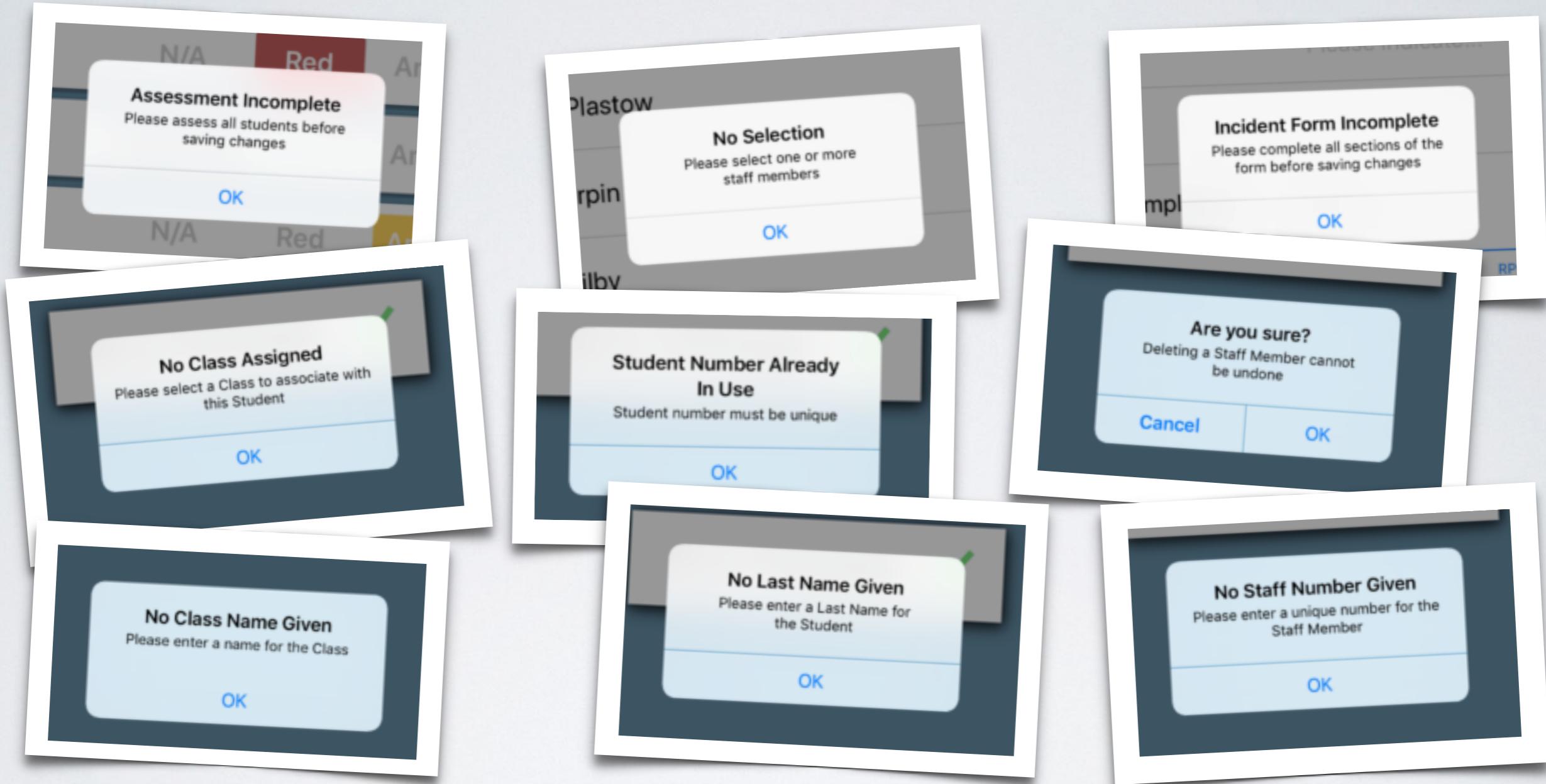
RAGs vs Incidents Charts



Behaviour Characteristics Chart



Error Handling



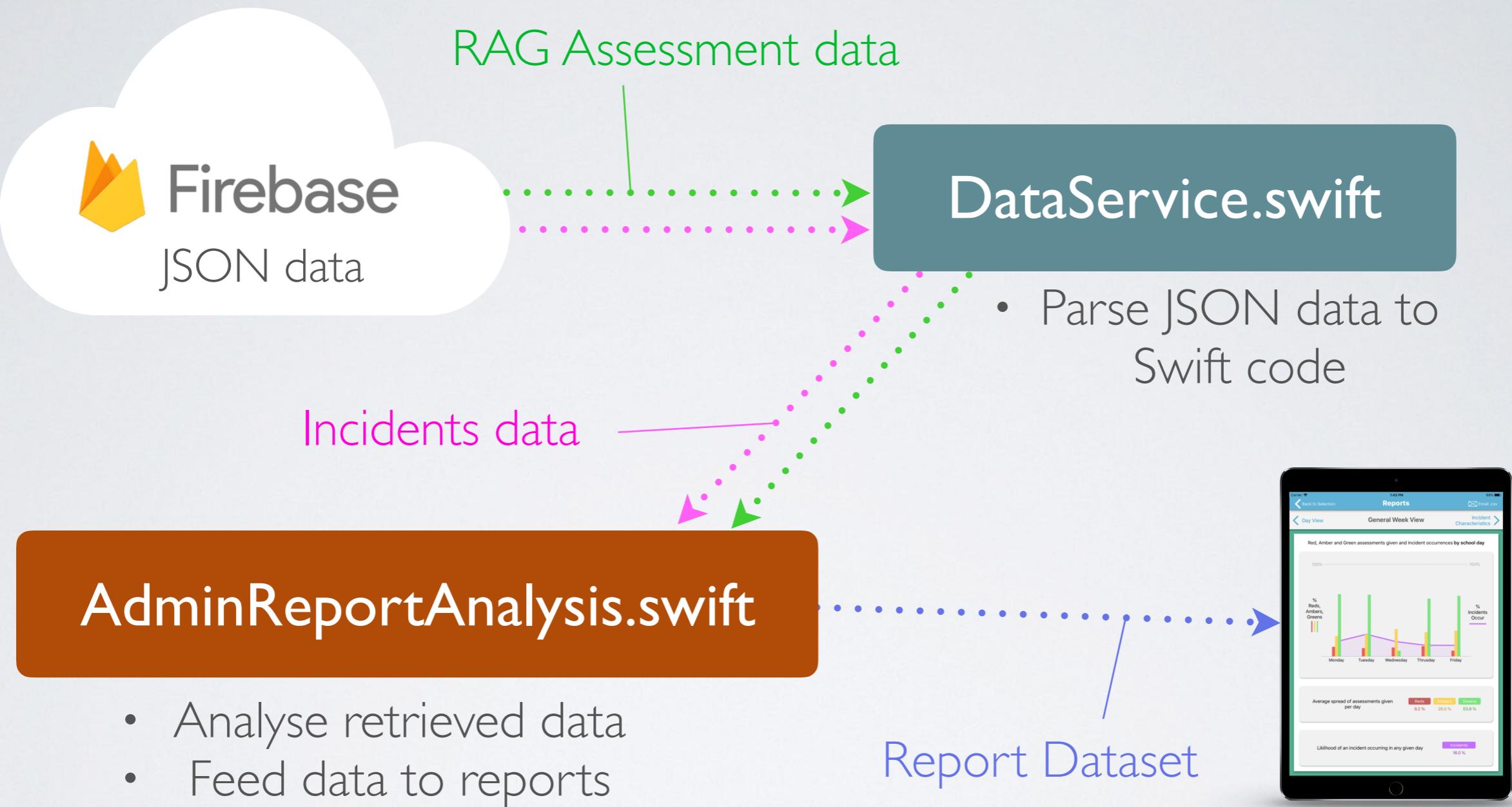
UI-Alerts

Firebase data-caching

Implementation Challenges

1. Delegate Pattern
2. Asynchronous Network Calls
3. Parsing JSON data from Firebase
4. Interface Builder and Auto-layout
5. Data Analysis for Charts
6. Chart Formatting
7. Exporting data to .csv via email

Implementation Challenges

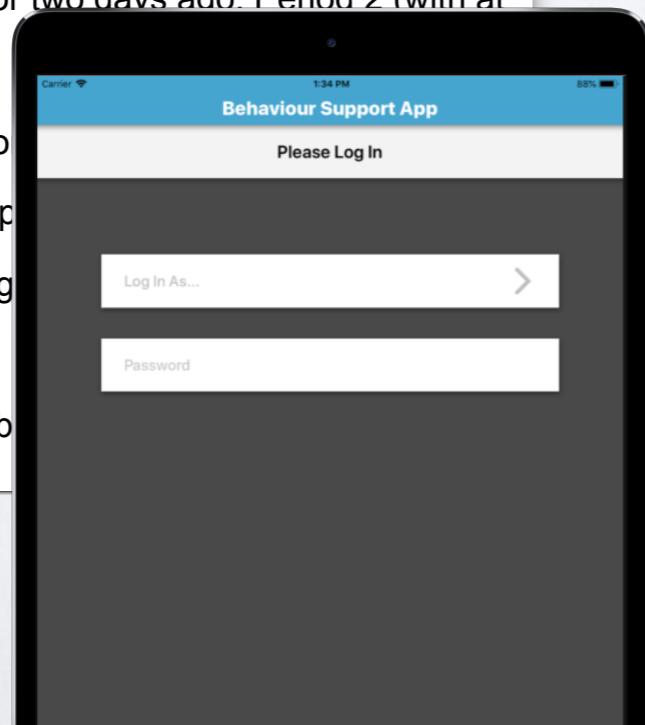


Asynchronous calls over the network require use of the **Delegate Pattern** to pass retrieved data between classes via **protocol methods**

Testing Process

Usability Testing

- Log-in to the 'Admin' account and add a new 'Class' entity
- Log-in to a 'Class' account and record a new Incident
- Complete a RAG Assessment for Class A, period 6, today (all Green)
- Check the quick report for a 'Class' account
- View 'Incident Characteristics' report for the whole school
- Add a new Staff Member
- Add a new Student to 'Class C'
- Move a Student to a different Class
- Complete the RAG Assessment for yesterday, Period 4 (with at least one Red)
- Amend the RAG Assessment for two days ago, Period 2 (with at least 2 Ambers)
- View the Day-View Admin Report
- View the Week-View Admin Report
- View the Admin Report of a single student in .csv format
- Delete a Student from the database

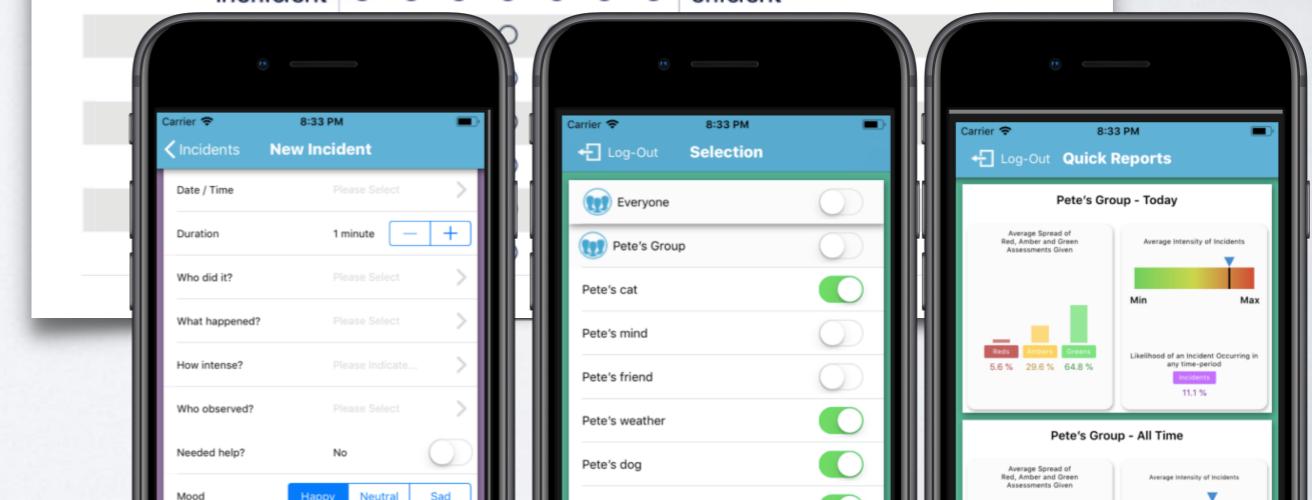


User-Experience Evaluation

Please rate the Behaviour Support App on the following scales
(tick one for each)

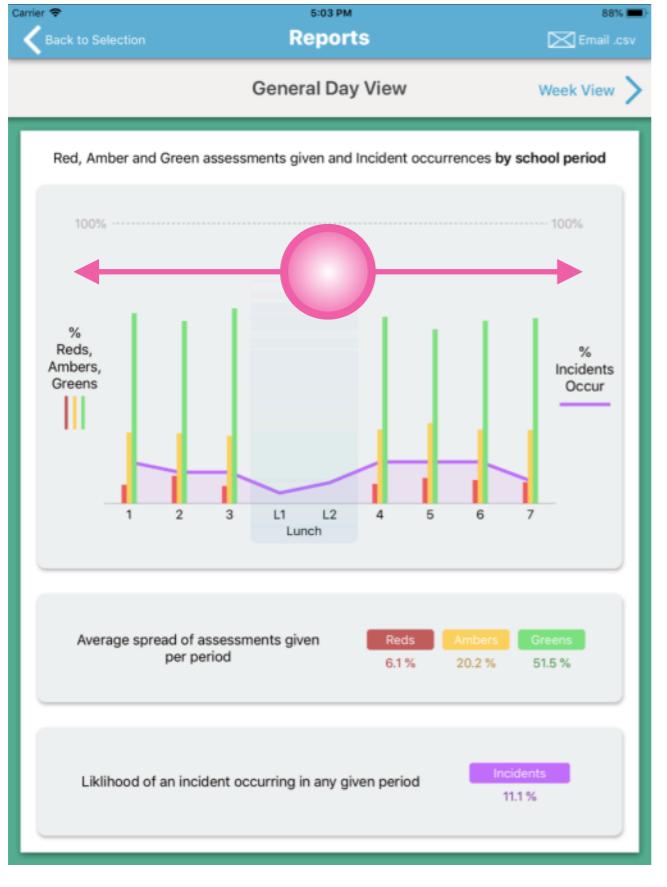
	1	2	3	4	5	6	7	
annoying	<input type="radio"/>	enjoyable						
not understandable	<input type="radio"/>	understandable						
creative	<input type="radio"/>	dull						
easy to learn	<input type="radio"/>	difficult to learn						
valuable	<input type="radio"/>	inferior						
boring	<input type="radio"/>	exciting						

Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
7	7	1	2	1	7	7	6	1	1	6	1	6	7	7	7	1	1	1	1	7	1	7	2	2	7	
7	7	2	2	1	6	7	5	1	2	7	1	4	6	6	6	7	2	1	2	7	1	7	1	2	2	6
7	7	1	1	1	7	7	7	1	1	7	1	7	7	7	7	7	1	1	1	7	1	7	1	1	1	7
6	5																									
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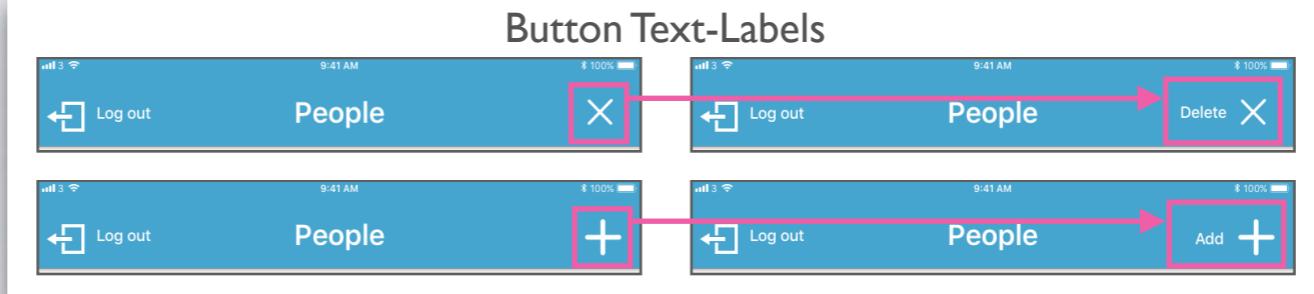


Usability Testing

Swipe Navigation



Button Text-Labels



List-Selection Clarification

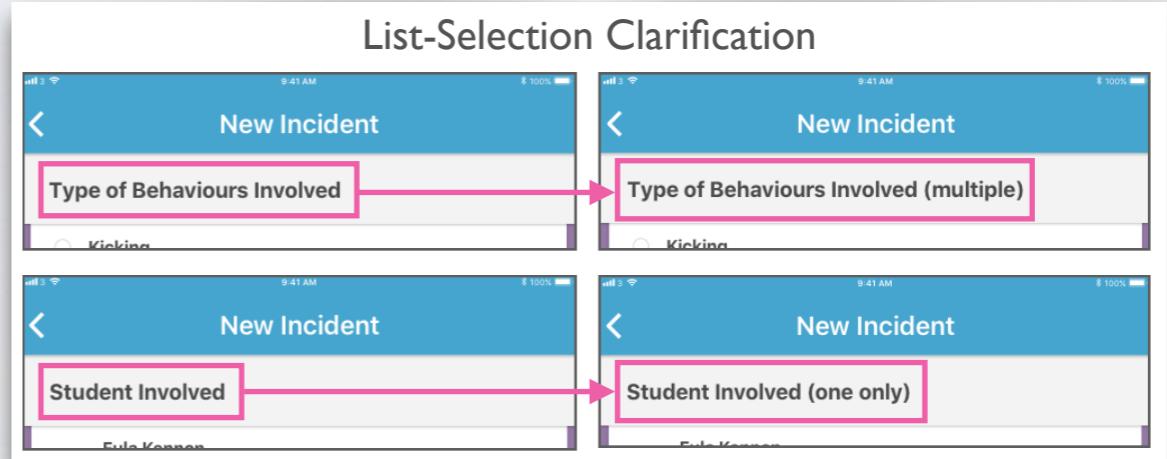
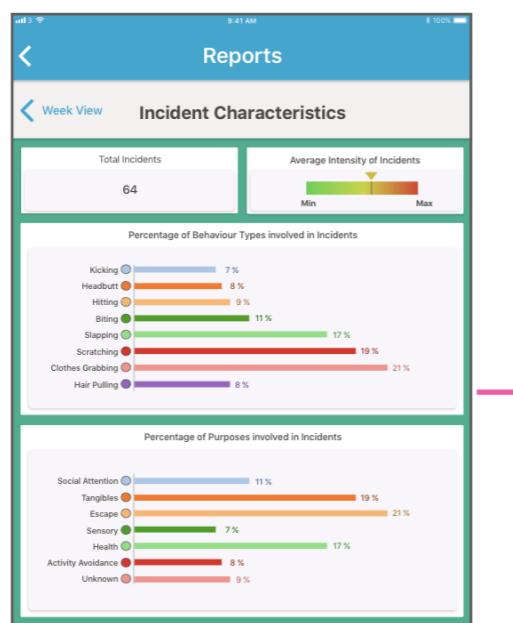
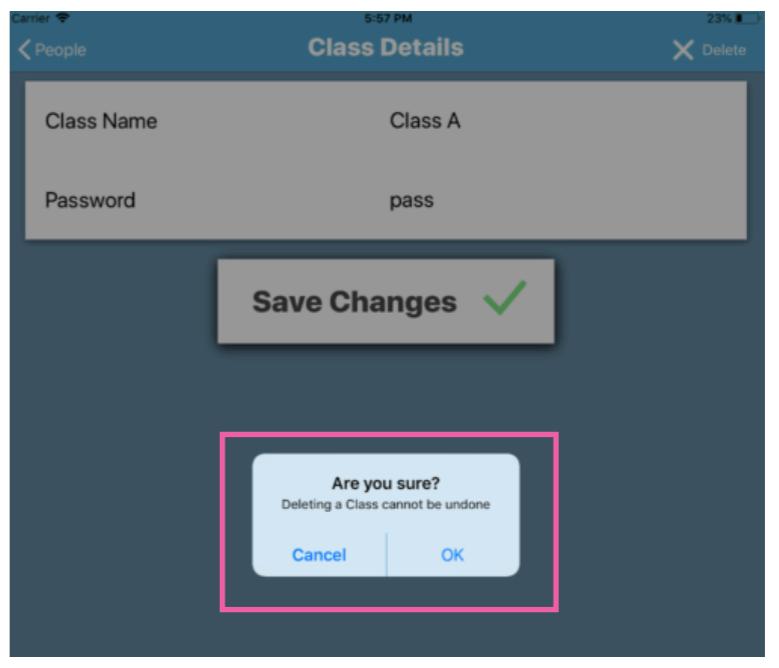


Chart Colour-Schemes

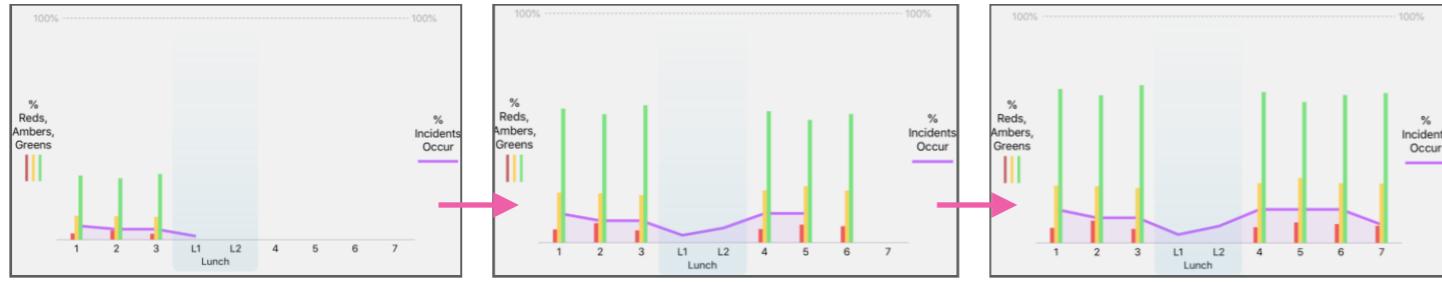


Delete-Data Alert

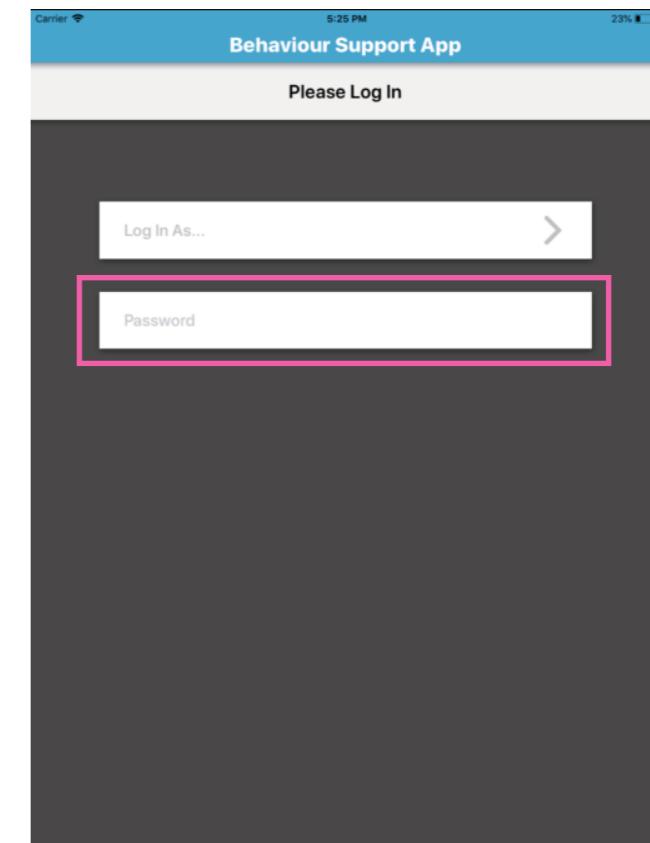


User-Experience Evaluation

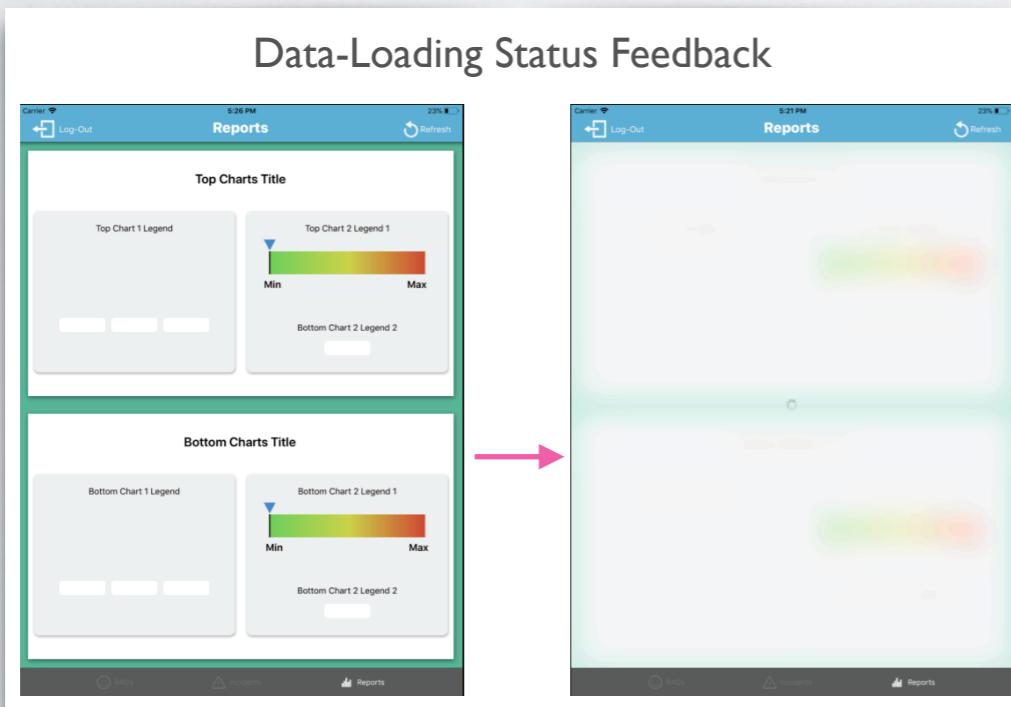
Chart Animations



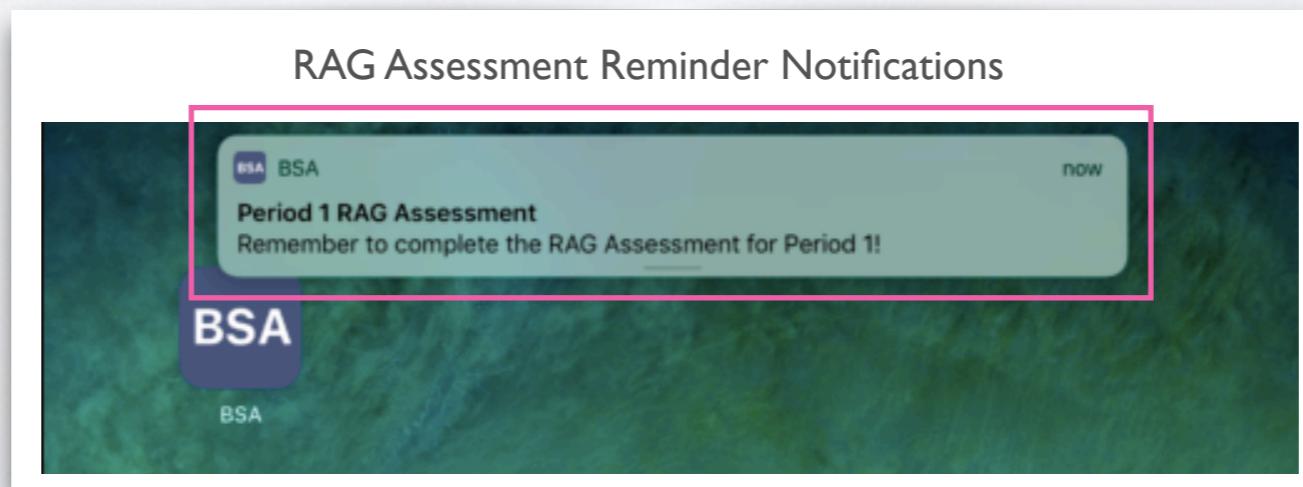
Password Authentication



Data-Loading Status Feedback

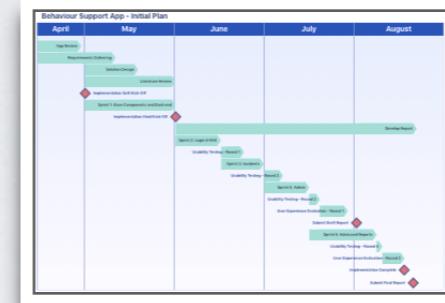


RAG Assessment Reminder Notifications

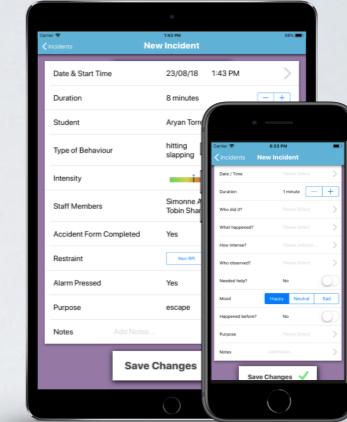


Learning Points

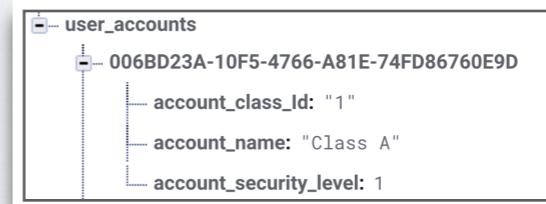
I. Flexible Time Planning



2. Multiple devices/screen-dimensions



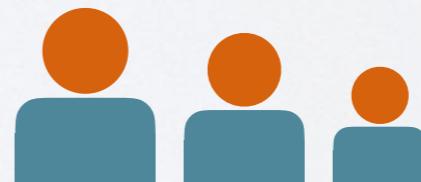
3. Planning the Data Model



4. User-Experience Evaluation over time



5. User-groups for testing



6. Tracking outcomes through Firebase



Future Development

I. Features stripped from Full Design for MVP

2. Bluetooth Wearables



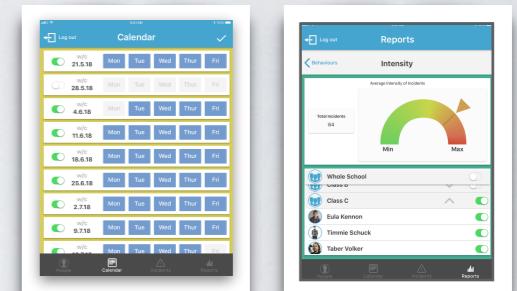
3. Active System

4. Browser Web-Portal



5. Partner App for Parents/Carers

6. Parents' Evening Reports



Questions

