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# Free Skiess

## Autism Virtual Reality Project

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# Overview

## Task(s) Completed:

- Work on the Web app (Both the Trainee and Trainer)
- Work on the Data Analysis for the trainee page
- Complete the functionality of the Questionnaire
- Finished the poster and the ebook
- connecting all features to the database
- Finished the user manual
- Finished clock counter



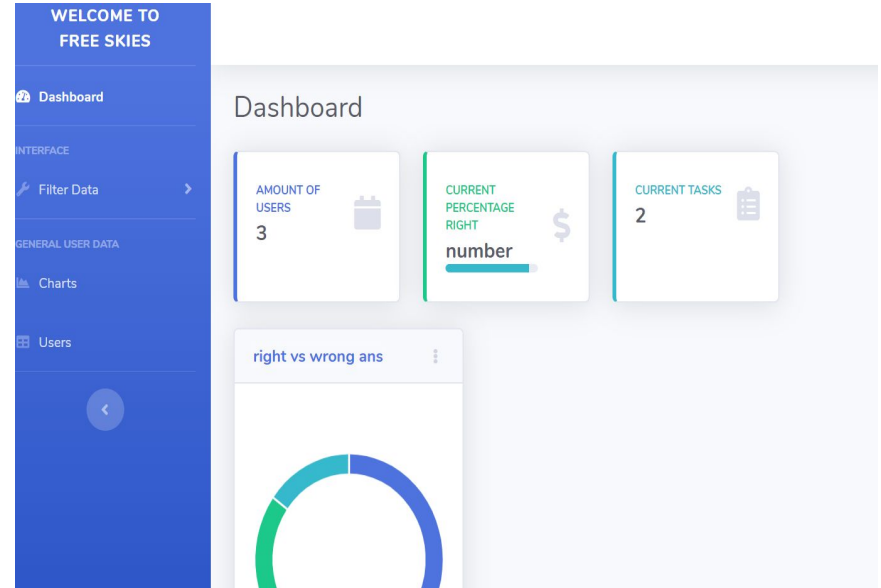
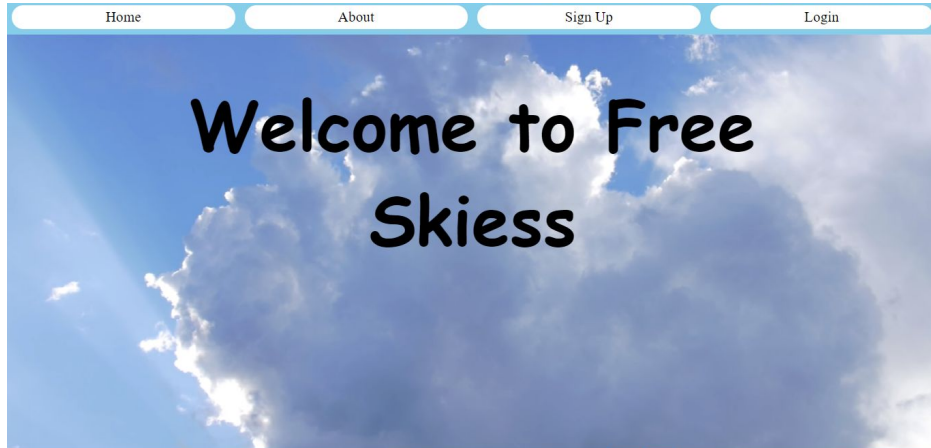
## Task(s) Not Completed:

- Work on graphing data



# Web Application Progress

- We started using bootstrap
- We created a js file for firebase function
- We got the authentication to work
- Pull request also works



# Database Progress

- We created a general js file
- Responsible for Authentication
- Push and pull



```
67
68 ▼ function pusher(username , email ,position ){
69
70
71 ▼     firebase.database().ref('school').set({
72         username: username,
73         email: email,
74         position : position
75     });
76
77 }
78
79
```

```
function login(){
```

```
    var userEmail = document.getElementById("email_field").value;
    var userPass = document.getElementById("password_field").value;
```

```
    firebase.auth().signInWithEmailAndPassword(userEmail, userPass).catch(function(error) {
        // Handle Errors here.
        var errorCode = error.code;
        var errorMessage = error.message;
```

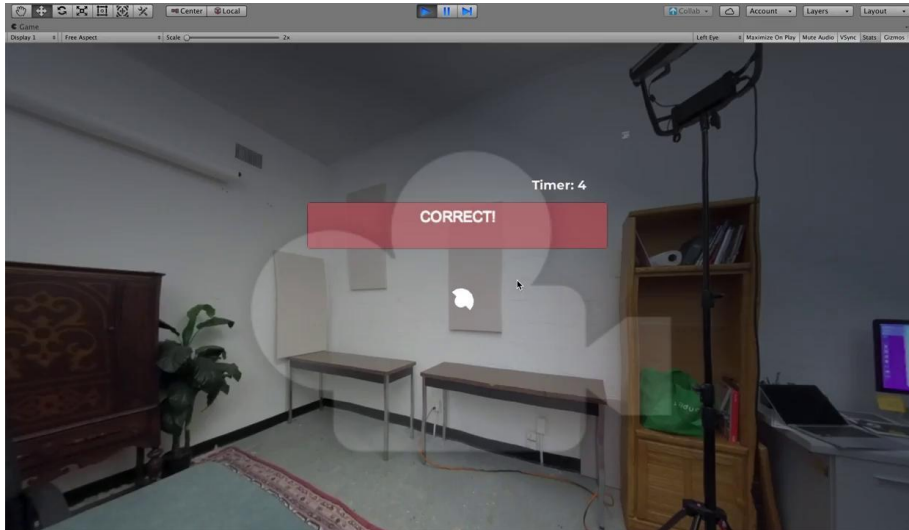
```
        window.alert("Error : " + errorMessage);
```

```
        // ...
    });
```

```
}
```

# Questionnaire Progress

- Added a countdown timer
- All functionalities are working



# Pictures from website



**AUTISM**  
AWARENESS

## Free Skiess login

 Remember Me

Login to Account c

[Create an Account Trainer!](#)

WELCOME TO  
FREE SKIES

Dashboard

INTERFACE

Filter Data

GENERAL USER DATA

Charts

Users



## Tables

This represents all the Trainers in the Database official DataTables documentation.

### DataTables Example

Show

Search:

entries

Trainee	Position	Office	Age	Start date	Salary
Airi Satou	Accountant	Tokyo	33	2008/11/28	\$162,700
Angelica Ramos	Chief Executive Officer (CEO)	London	47	2009/10/09	\$1,200,000

# Poster

- We completed the poster for the virtual showcase



## Free Skiess

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Florida Institute of Technology



### INTRODUCTION

Free Skiess is a system that assists in the training of The Scott Center therapists. Our goal is to provide a more efficient and comprehensive way in aiding people on the autism spectrum. This system consists of a Web Application and a Virtual Reality Application. The lessons are mainly held in the Virtual Reality Application. The Web Application is developed for both the trainee and the trainer. They will be able to create individual accounts and keep track of their working progress.

### MOTIVATION

Our motivation is to assist with the progression of autism treatment by using an immersive virtual reality experience. As we realize with the increase in technology we can now provide training for monitoring and aiding people with disabilities better.

### PROJECT GOAL

The goal of the project is to create a system to assist in the training of The Scott Center therapists. With the use of our system as a training platform, the ultimate goal is for them to provide a more efficient and comprehensive way in aiding autistic kids. While some attempts to monitor individuals with autism were carried out, there are few that aim to train individuals with the right scenarios.

### FUTURE IMPROVEMENT

For future work, more lessons can be created and added to the program. For future improvement, the functionalities of the Web App and the Database are just simple right now. There are more features that can be added on to the Web App and the Database.

### DESIGN

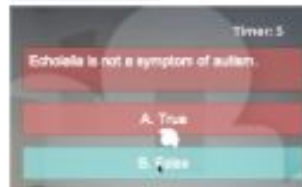
#### System Architecture



#### Database Classes



#### Question in Oculus Go



### Web App Dashboard



### FEATURES

#### Virtual Reality

- The trainee will be able to learn in an immersive 360 experience. This experience will include a 360 video, interactive button(s), and learning progress. Based on the treatment needed by autistic patients the game levels which will change and provide unique challenges to keep interest.

#### Web App

- Trainer
  - Individual Profile
  - Performance Comparison between trainees
  - Data analysis of each trainee and the overall analysis for group of trainees
  - Provide feedback and communicate with the trainees
- Trainee
  - Positive Reinforcement - A grading system will be included for trainee to see improvements and area of improvements
  - Trainee Plan Access - The Trainee will be able to access the trainee plan their Trainer assigned to them to complete in the 360 environment.



# Technical Challenges

- We were having a bit of challenges with the bootstrap architecture
- We are still trying to fully understand how firebase works using javascript
- Challenges of distance working



**Question?**

**Thank you!**