

Free Sky

**The sky is not the limit, but your
playground**

Autism Virtual Reality Project

Design Document

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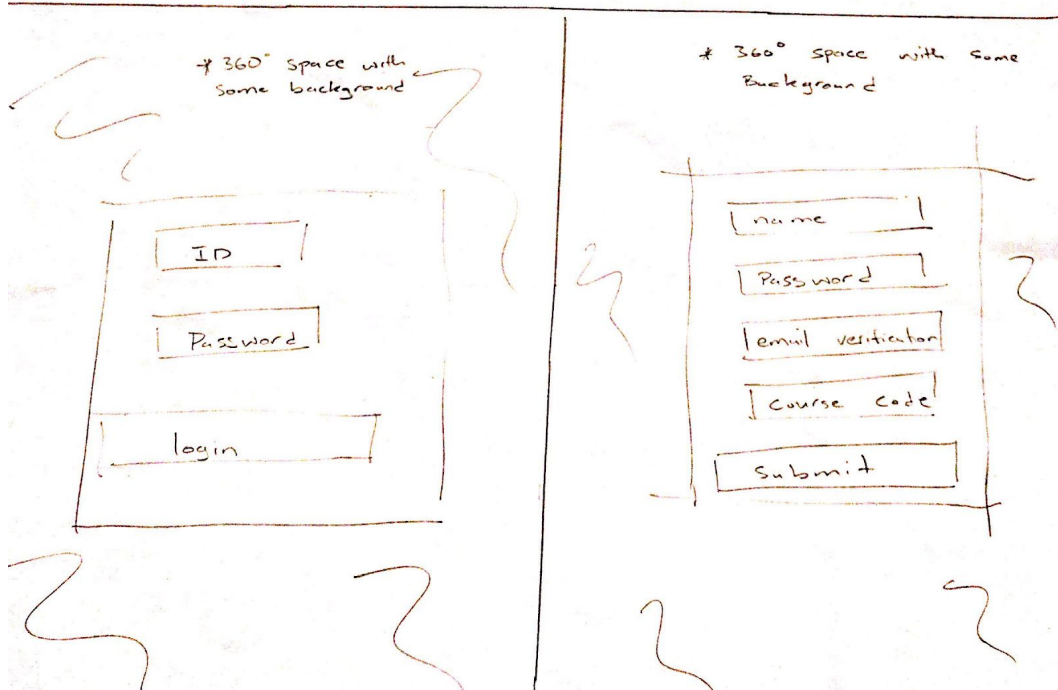
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GUI Mockup diagrams

The graphical user interface diagrams goes through the main functionality of the entire system. Noting all the requirements stated in the requirements diagram from a user perspective, the trainer and trainee. The components that the GUI are broken down into are as follows :

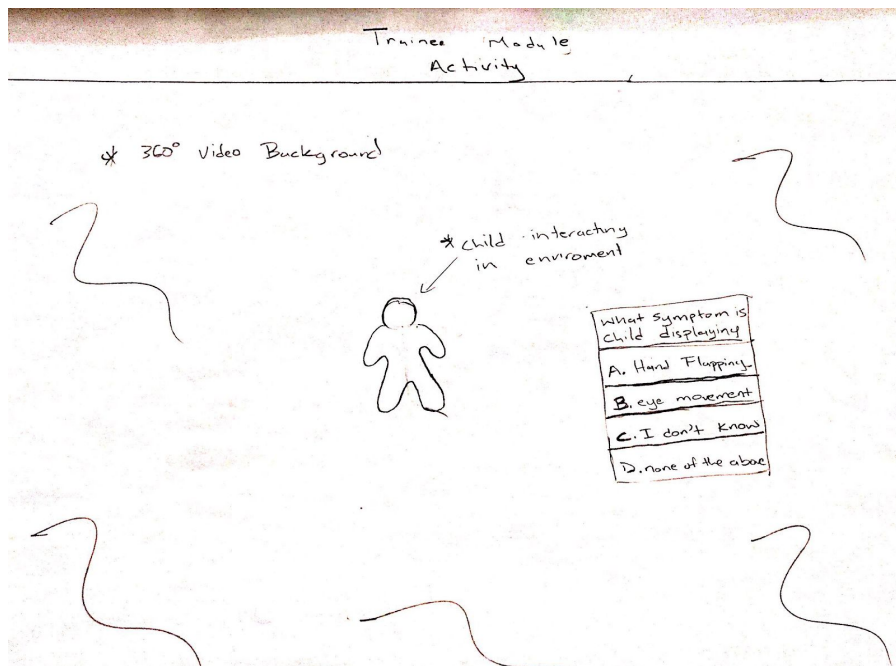
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Sign in
Sign up



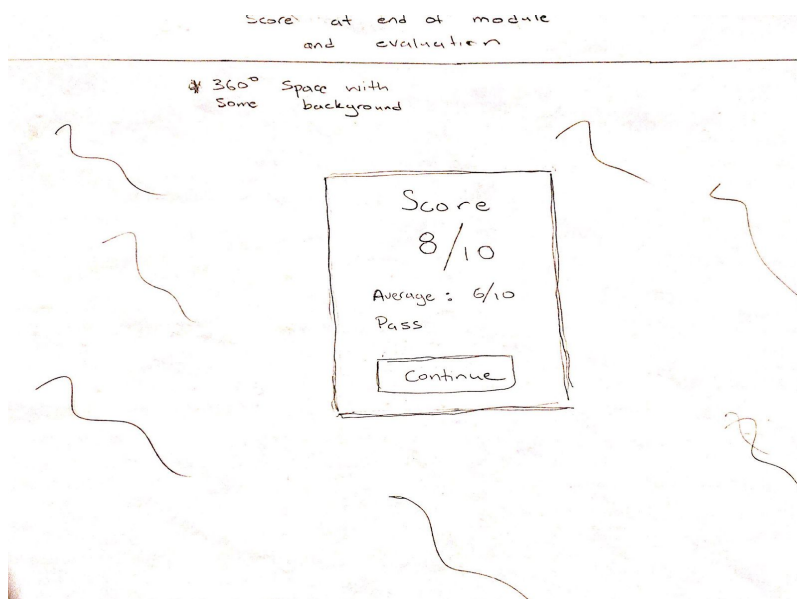
Sign in and sign up

As seen in the figures on the following page sign in and sign up provide simple text boxes for the user to enter their information. The background provides a 360 still image with some music playing in the background



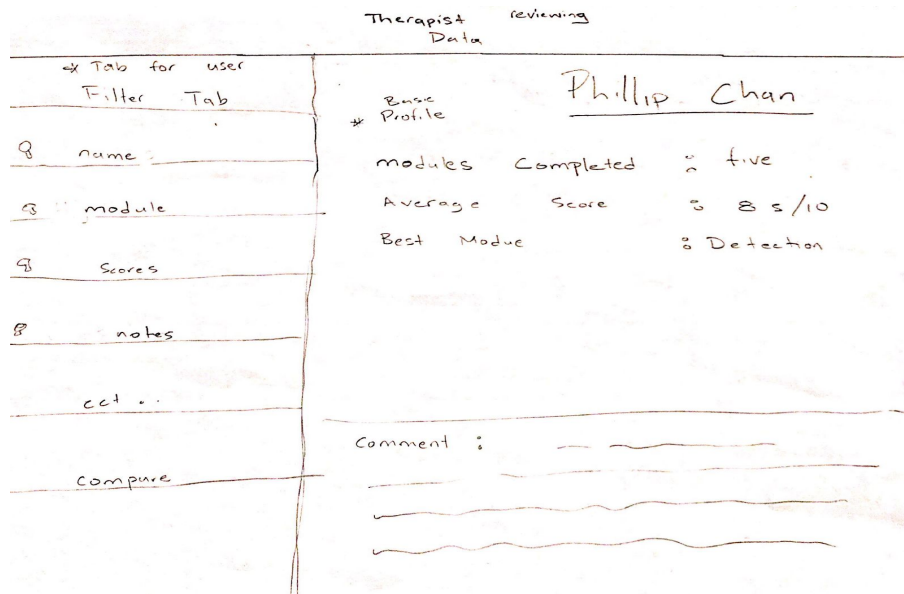
Trainee module activity example

This diagram shows the Trainee going through a basic module activity. This activity has a 360 video playing showing the child moving in an environment. There is then a Question and answer bar that the trainee selects from. The Question and answer bar is in a fixed location.



Score at the end of module and evaluation

At the end of the activity a icon then is displayed to the trainee where he can then add additional notes or concerns to the Trainer and view how they did on the activity

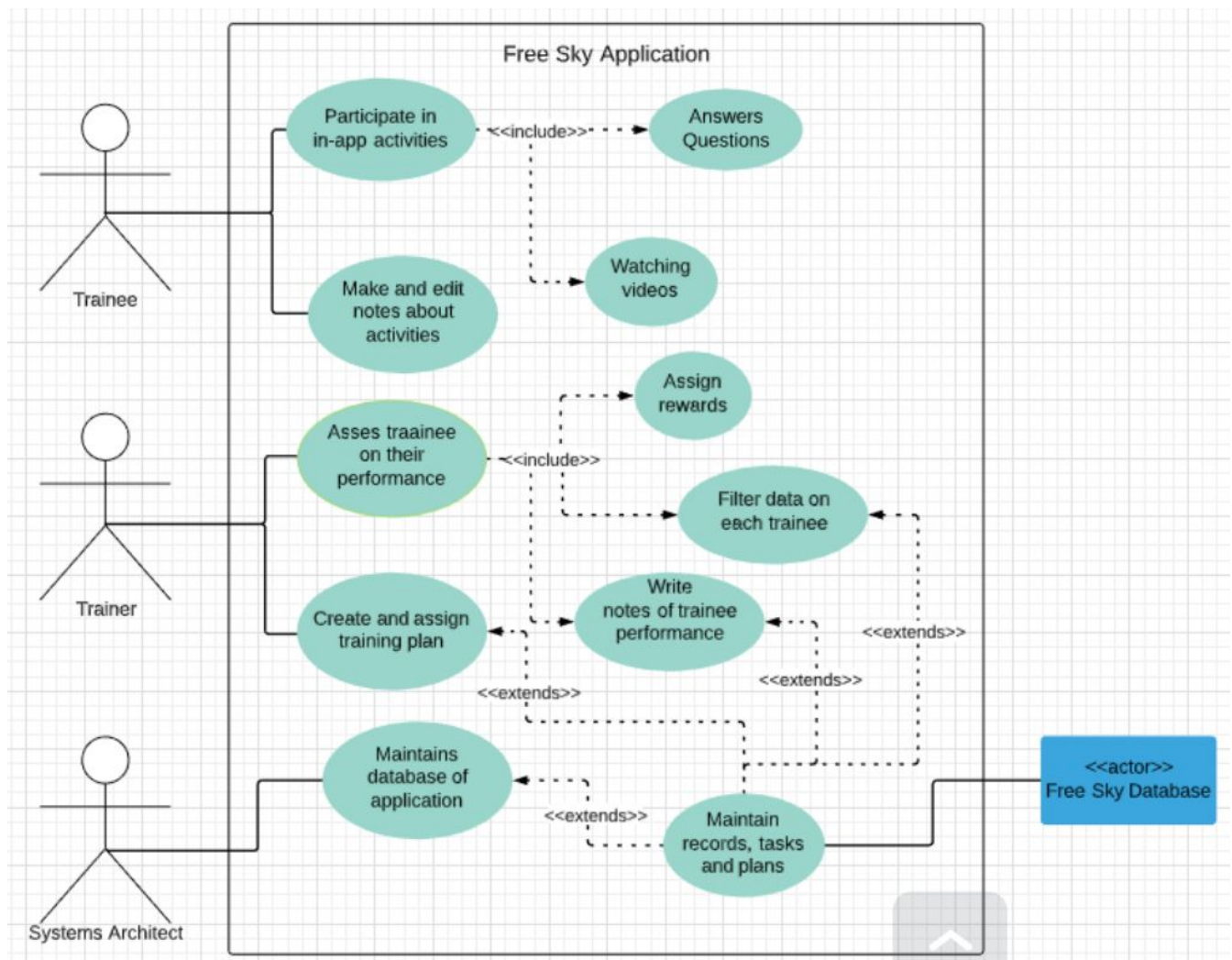


Therapist Reviewing data

This diagram shows a navigation sidebar where the trainer can filter data with the rest of the screen showing the results of filter. This part would not be in 360 but a unity app connected to the database

UML Diagram

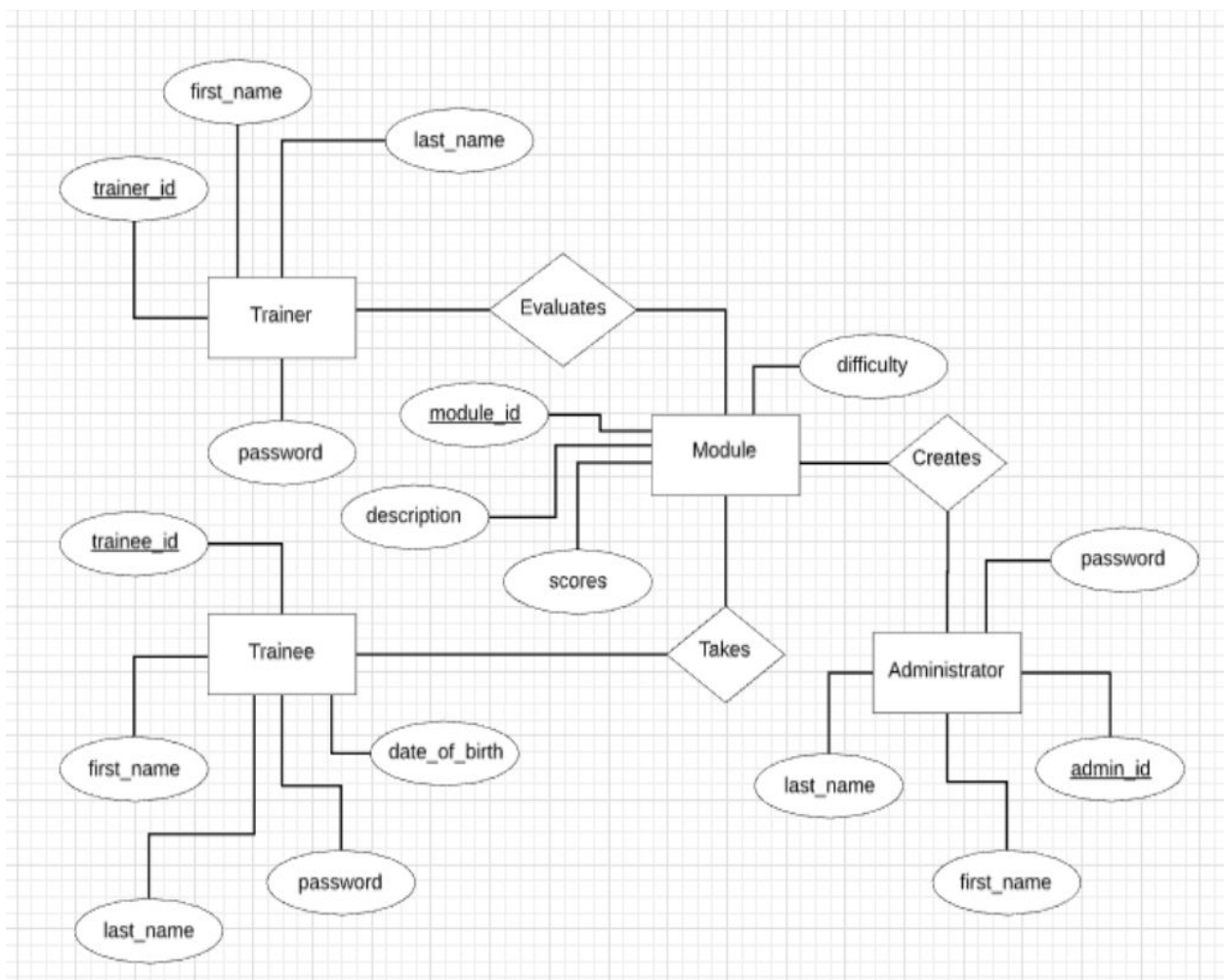
The UML diagram reviews how each of the three actors interact with the system. After reviewing the requirements and each role It was decided that a third actor should be included. This third Actor would be the system Architect as they would to maintain the database and ensure that the levels and other components of the system are maintained. The other actors are the main users of the system the trainer who evaluates and observers trainee and trainer who mainly watches videos and answers questions.



Database Design

The design of the database highlighted four main entities that would interact with one another. The Trainer, The Trainee, The Module and the Administrator. These entities are what will make up the components of the Database. The Trainer both interact with the modules which is created by the system Administrator.

ER Diagram



Database Types Breakdown

Based on the requirements outlined in the requirements firebase would be the best way to store the data. When retrieving and storing data we needed to specify different data types. The only data type that cannot be accounted for is password which is encrypted by the firebase system and can be stored separately.

Trainer	
trainer_id	string
first_name	string
last_name	string
password	hexadecimal

Trainee	
trainee_id	string
first_name	string
last_name	string
password	hexadecimal
date_of_birth	date/time

Module	
module_id	string
description	string
scores	int
difficulty	int

Administrator	
admin_id	string
first_name	string
last_name	string
password	hexadecimal