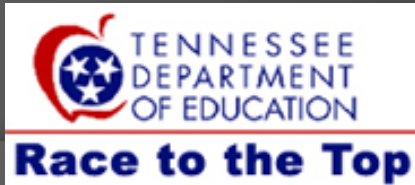# ILEAD
STUDENT DIRECTED IEP APP

Designed by Treva, Syler & Sydney Maitland

Created by Tom Trabue, Union University, Spring 2015

Faculty Advisor: Dr. James Kirk

Concept

- Initial idea from Treva Maitland from The Arc Tennessee.

- Contacted Dr. Kirk for a student to develop an app for Student-Directed IEPs.

- Challenge accepted.

What is an IEP?

- An IEP is an **Individualized Education Plan.**
- It is a curriculum (a list of classes) designed specifically for a student diagnosed with a learning disability.
- They are typically designed for students in kindergarten up to high school.
- When a student qualifies for an IEP, the student and his/her parents meet with a educational professional to decide on an appropriate IEP.
- However, there is usually very little input from the students themselves, which weakens the power of their IEPs.
- Student-Directed IEPs (SD-IEPs) are unofficial IEPs designed by the students themselves to allow them greater participation.

The Background:
The Arc Tennessee's SD-IEP Project

- A few years ago, The Arc US and the Walmart Foundation funded a 3-year pilot project on Student-Directed IEPs (SD-IEPs).
- They worked with 3 LEAs in Tennessee over 3 years and worked with more than 30 students.
- SD-IEP training continues today with The Arc Tennessee through the Tennessee Department of Education

Special Education Supervisors' quotes about SD-IEPs

- Students dressed professionally to attend their own meetings
- Students spoke up, helping educators focus on the student more
- SD-IEPs set the tone for the entire meeting
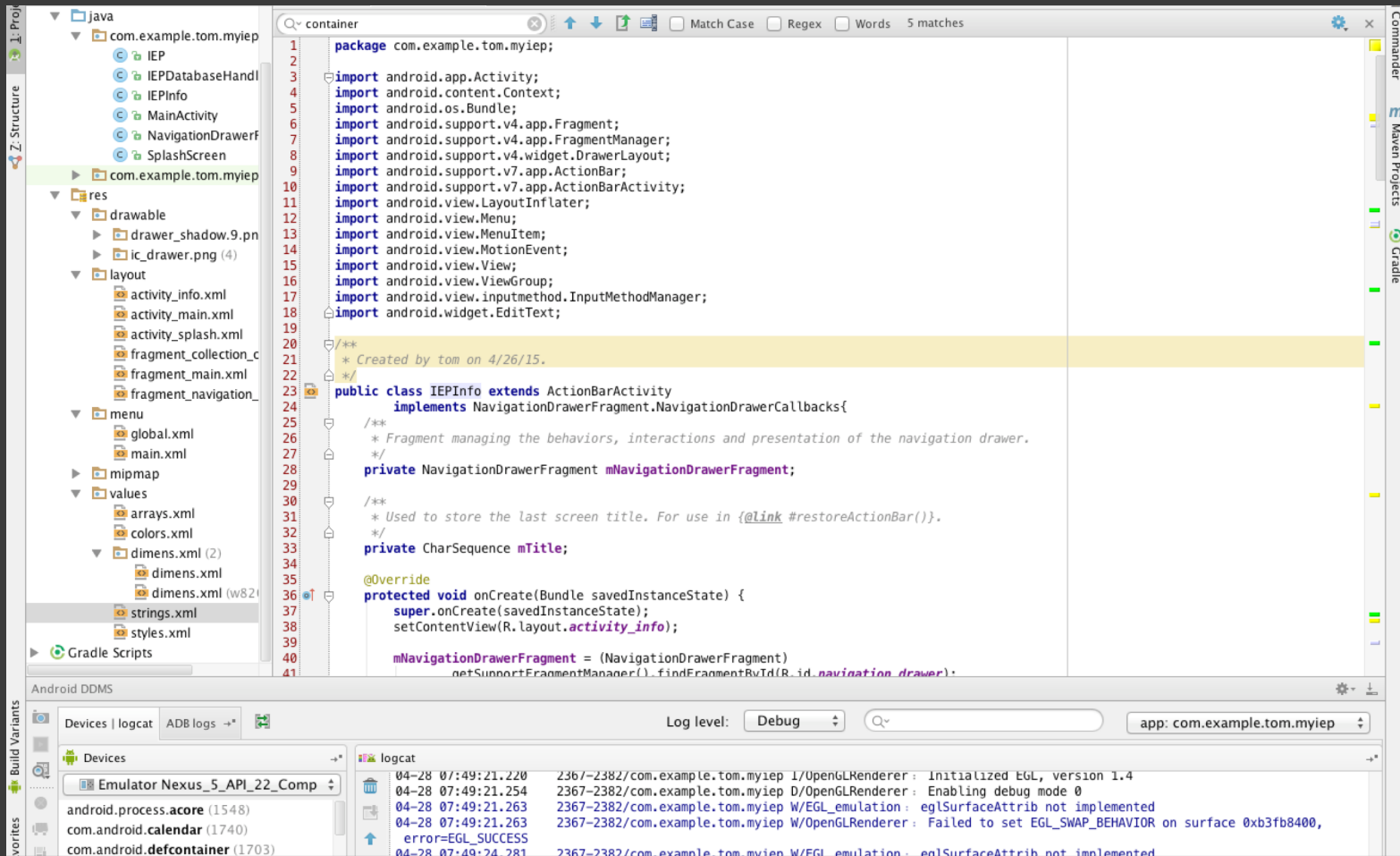- Parents started to see their child in a different light

Research shows increases in...

- Self-determination
- Goal setting and attainment skills
- Academic performance
- Post-school goals & transition outcomes

iLEAD

- A mobile application designed to facilitate SD-IEPs.
- Currently implemented in Android, although an iOS implementation is on the horizon.
- iLEAD allows users to design their own IEPs, presents a visual reference for successfully completing an official IEP meeting, and contains an info page.
- Developed using Google's Android Studio IDE.
    - Uses Gradle, a flexible build tool that automates building and testing an app.
    - Provides the user with virtual Android devices for testing.
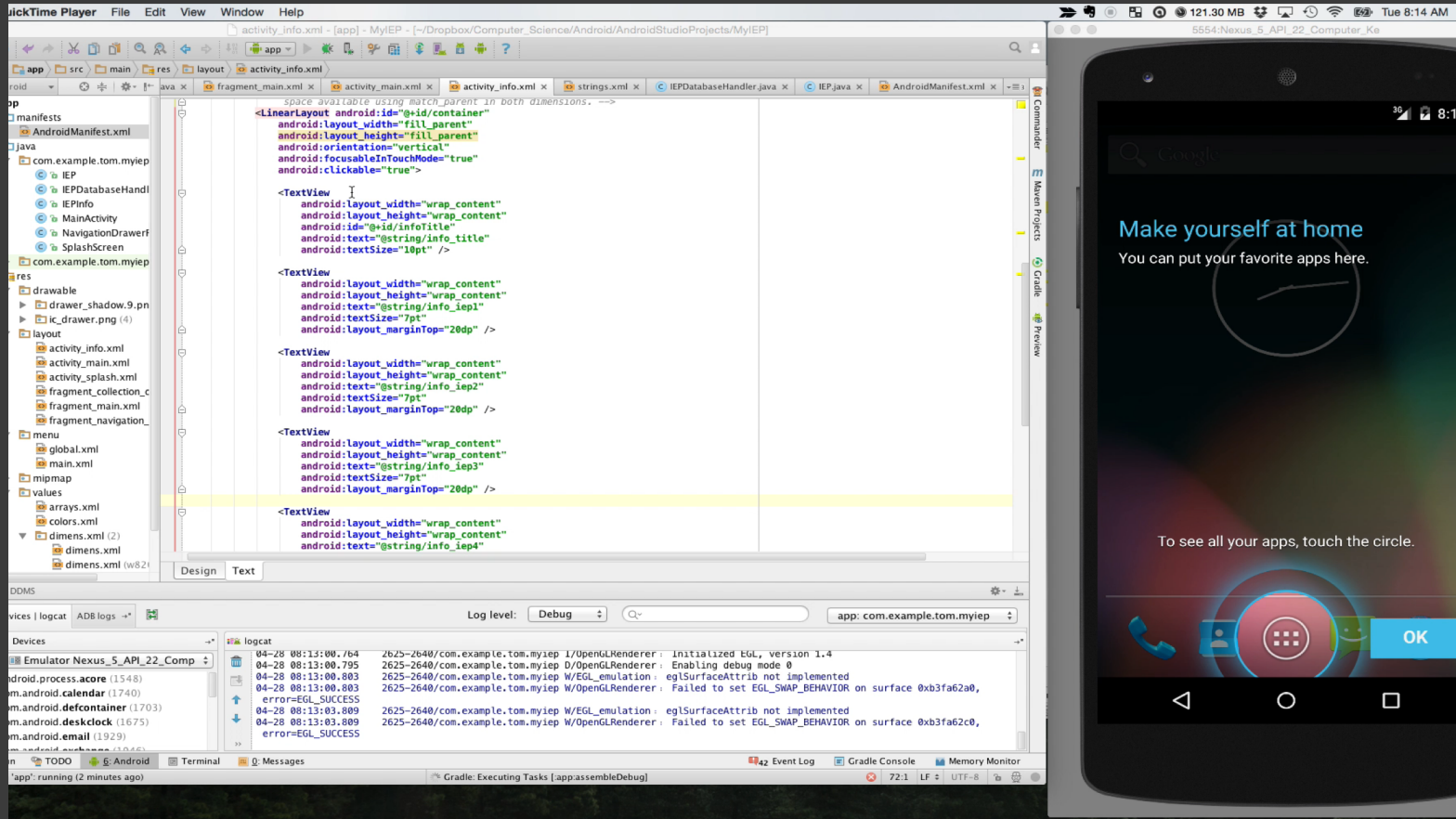
Android Studio IDE

Android Development

- An Android app is built using a combination of Java and XML.
  - Java acts as the functional side of the app.
  - XML acts as a convenient way of specifying the visual objects seen in the app.
  - The entire app could be coded in Java, but XML makes the process much simpler.
- An Android app has one or more **Activities**, which are usually directly associated with a screen in Android.
- Each Activity is typically specified with a Java class and an XML file that work in conjunction.
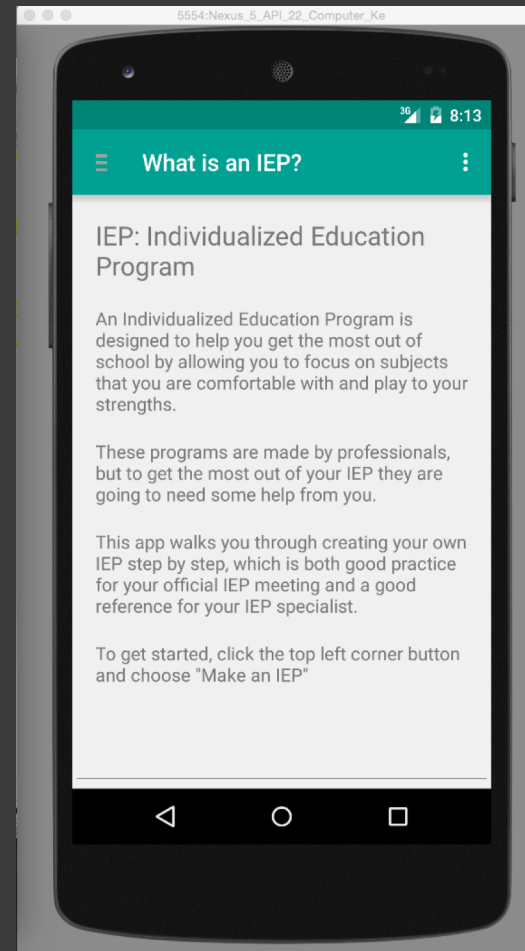- Most of the Activity is written in its Java class

iLEAD's Activities

- iLead is designed with three Activies: IEPInfo, MakeIEP, and SelfAdvocacy.
- IEPInfo describes what an IEP is and how to use the app.
- MakeIEP presents the user with a set of text input fields for filling in an SD-IEP
- SelfAdvocacy is currently just a series of steps for successfully navigating an official IEP meeting.
- Mrs. Maitland is considering other features to add in the future.
- Also contains a <u>Splash Screen</u> as a sort of introduction to the app.

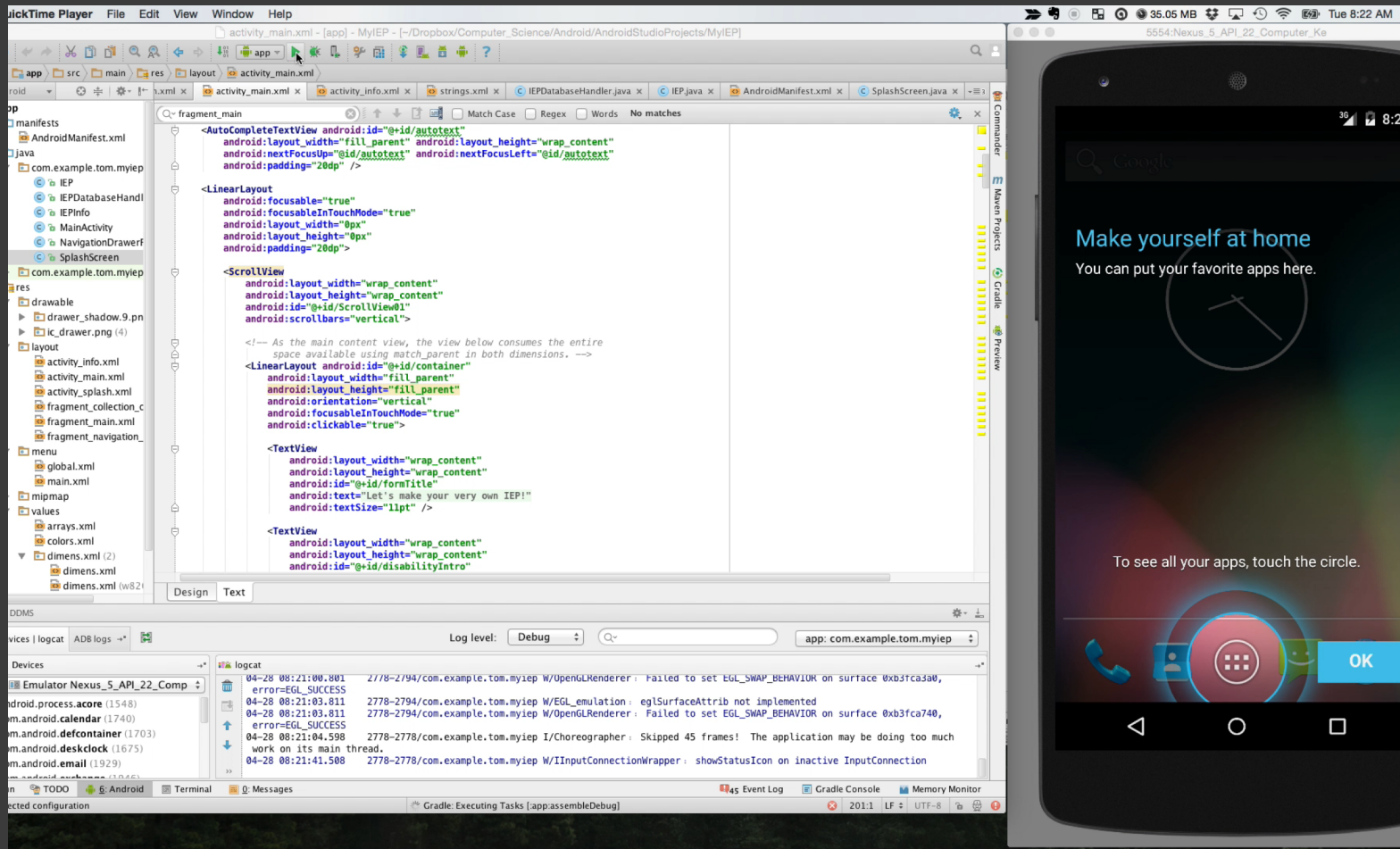# IEPInfo Activity

IEPInfo Activity

- Briefly describes what an IEP is.

- Describes why making an IEP is helpful for the student and their IEP specialist.

- Invites student to make their own IEP.
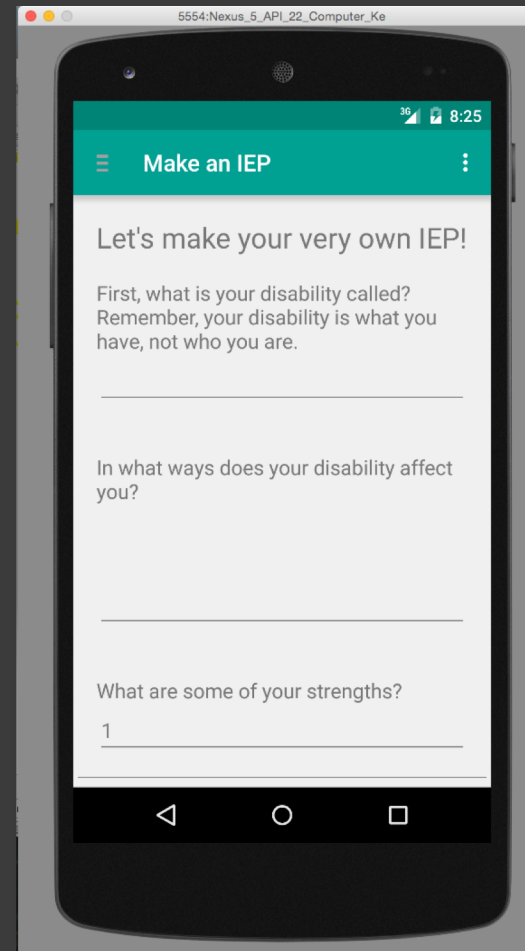
Facets of an IEP

- Have student identify his/her disability.
- Have the student describe how his/her disability affects them in class.
- Have the student his/her:
  - Strengths
  - Talents
  - Preferences
  - Interests
- Ask the student to describe their post-school goals
- Lastly, have the students describe certain skills that they want to learn in school before graduation.
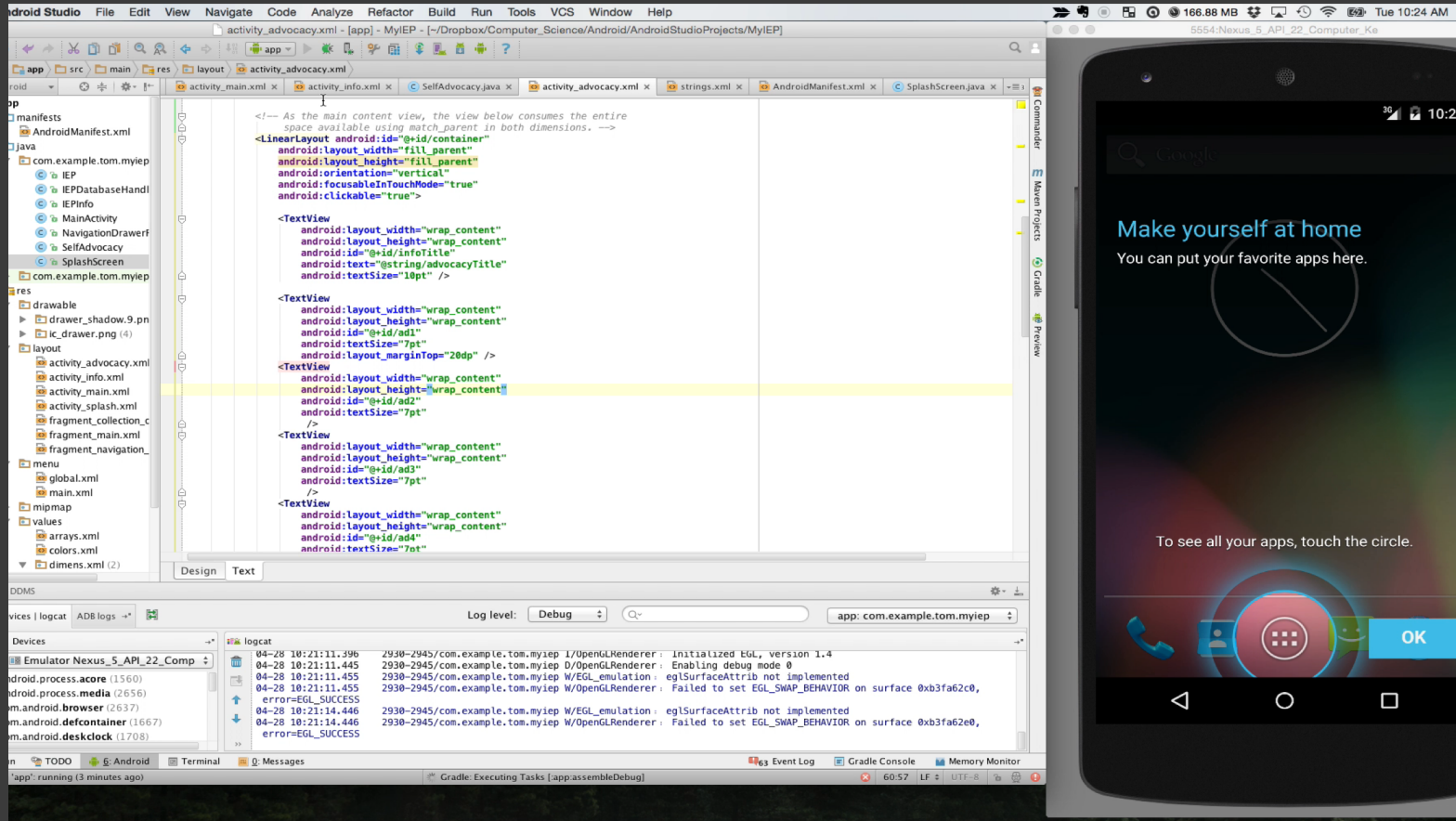
MakeIEP Activity

MakeIEP Activity

- A step-by-step IEP form

- Uses a SQLite database to store user's IEPs

- The user does not have to fill in every field to save their IEP
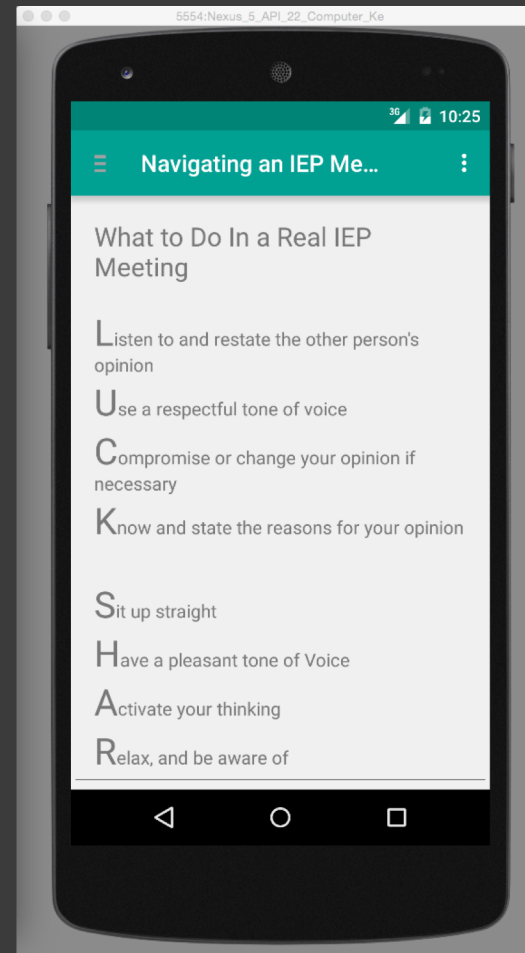
- May add collapsibility to numbered groups later

SelfAdvocacy Activity

SelfAdvocacy Activity

- A reference page for getting the most out of an official IEP meeting.
- Will be expanded later with more resources.

Challenges

- Android app development was a completely alien concept to me in the beginning.
  - Learning curve for a complete novice is very steep.
- Developing an android app is very different from creating a standard web application.
  - Use of Java and XML rather than JavaScript and HTML makes for a very low-level development process.
  - Android Studio's Designer UI is both helpful and treacherous.
- Allowing the user to effectively move from one screen to another is exceptionally convoluted, involving numerous Java methods and file communications.
- Android Studio is very new, and many of its technologies are constantly changing.

Moving Forward

- Finish connecting all facets of the app
- List the user's saved IEPs for them to access in the "Make an IEP" page
- Add styles and images to spruce up the static pages
- Port the app to iOS

Conclusion

- Many reports claim that about 5% of children in the U.S. are affected by some kind of learning disability.[1][2]

- Tennessee is one of the only states involved with SD-IEP training.

- iLEAD has to potential to make Student-Directed IEPs a widely used and understood educational tool.

1. Department of Education. (2010). Twenty-ninth annual report to congress on the implementation of the Individuals with Disabilities Education Act, Parts B and C. 2007.
2. Pastor, P. N., & Reuben, C. A. (2008). Diagnosed attention deficit hyperactivity disorder and learning disability: United States, 2004-2006. Vital and Health Statistics, 10.

Thanks

- Trava, Sylar, and Sydney Maitland for this wonderful opportunity, and providing me with resources.

- Dr. James Kirk for keeping me on track and motivating me.

- Coffee, for keeping me awake.

- God, for keeping me alive.

Questions