Week 2 Day 3 Research

1. What is a relational database?

   A: A relational database is a stored set of tables of information which allows all
   information, specific information, and customized reorganized variants of the information
   to be accessed and used by the person retrieving from the database all without actually
   altering the original database records. Thus, it's a way to allow those who have the access
   to manipulate/access a structured set of information in several ways they want using the
   database language via queries. While the database user can restructure these tables in any
   manner they wish virtually, anything they do only modifies the represented set of tables -
   not the actual set of tables in the database. Database administrators, on the other hand, do
   have the ability to modify, add, and delete any entity or any of an entity's information.

2. What is SQL?

   A: SQL is the language used by relational database management systems. SQL is
   extremely useful and flexible for accessing, manipulating, and restructuring
   representations of information without having to necessarily change the real database
   structure. It stands for Structured Query Language because it is a way to structure a
   representation.

3. What is the difference between apply and commit with shared preferences?

   A: Commit() writes the preferences synchronously writes to the disk immediately.
   Apply() writes preferences asynchronously and commits to the in-app memory without
   returning any errors of the preferences not getting stored. Commit() does throw errors
   when there is nothing stored to the preferences.

4. What is the differences in Glide and Picasso?

   A: Glide and Picasso are both image loading libraries used to pull in external images in
   Android. The main differences are that Glide is a heavier library to use because it has a
   higher built in method count than Picasso. Glide also takes more memory because of this.
   Glide is slower than Picasso on a specific image's load time because it will resize and
   scale an image to fit into whatever image view it is being placed in. Picasso, on the other

hand, loads images as raw size. However, Glide is quicker on an image's second load as it already recognizes the resized image and copies it into the image view while Picasso has to render the raw size each time from cache loading. Glide is more customizable, but is also the size of Picasso.

5. What is Android X and what are some new features and improvements being introduced with Android X?

A: Android X is the new open source project used by Android developers to package, test, release libraries, version, and develop within Jetpack (i.e. all of Androids libraries and tools). It is new to the APK of 28 and higher. All packages within Android X are modified and maintained separately whereas the Support library was maintained as a whole. Another nice feature is the ability to update any Android X package within one's own project for their own purposes. From now on, Android X will be the only support library being developed for in Android development. Everything still used from the old Support library is now mapped into the Android X project library.