1)

A relational database is a collection of data items with pre-defined relationships between them. These items are organized as a set of tables with columns and rows. Tables are used to hold information about the objects to be represented in the database. Each column in a table holds a certain kind of data and a field stores the actual value of an attribute. The rows in the table represent a collection of related values of one object or entity. Each row in a table could be marked with a unique identifier called a primary key, and rows among multiple tables can be made related using foreign keys. This data can be accessed in many different ways without reorganizing the database tables themselves.

2)

SQL stands for Structured Query Language. SQL is used to communicate with a database. SQL statements are used to perform tasks such as update data on a database, or retrieve data from a database. Some common relational database management systems that use SQL are: Oracle, Sybase, Microsoft SQL Server, Access, Ingres, etc. Although most database systems use SQL, most of them also have their own additional proprietary extensions that are usually only used on their system. However, the standard SQL commands such as "Select", "Insert", "Update", "Delete", "Create", and "Drop" can be used for almost any purposes.

3)

Commit() writes the data synchronously (blocking the thread its called from). It then informs you about the success of the operation.

Apply() schedules the data to be written asynchronously. It does not inform you about the success of the operation.

If you save with apply() and immediately read via any getX-method, the new value will be returned!

If you called apply() at some point and it's still executing, any calls to commit() will block until all past apply-calls and the current commit-call are finished.

4)

Picasso has 849 method counts, while Glide has a total of 2678.

Picasso’s library size is about 1/4 of Glide’s (121kb vs. 440kb)

Glide supports features like Animated GIF, Thumbnail and Configuration & Customization while Picasso doesn’t

While both support disk caching for image, Picasso downloads the image and store it raw without resizing it. Glide, however, downloads the image , resize it to the size of the image view and stores it to the cache (if you are loading the same image in two different sized image views, Glide will store two different copies of the same image in the cache with different resolutions).

Glide is more memory efficient than Picasso because Glide already resize the image and store it in the cache, while Picasso needs to get the full image out then reside it using the GPU.

5)

AndroidX is the open-source project that the Android team uses to develop, test, package, version and release libraries within Jetpack.

AndroidX fully replaces the Support Library by providing feature parity and new

libraries. In addition AndroidX includes the following features:

All packages in AndroidX live in a consistent namespace starting with the string androidx. The Support Library packages have been mapped into corresponding androidx* packages.

Unlike the Support Library, AndroidX packages are separately maintained and updated, and uses Semantic Versioning.

All new Support Library development will occur in the AndroidX library. This includes maintaining the original Support Library old functionalities and introducing new Jetpack components.