Each software needs to embrace a certain number of characteristics.

Characteristics of a Software

- Maintainable and Extendable
- Testable
- Understandable for new developers

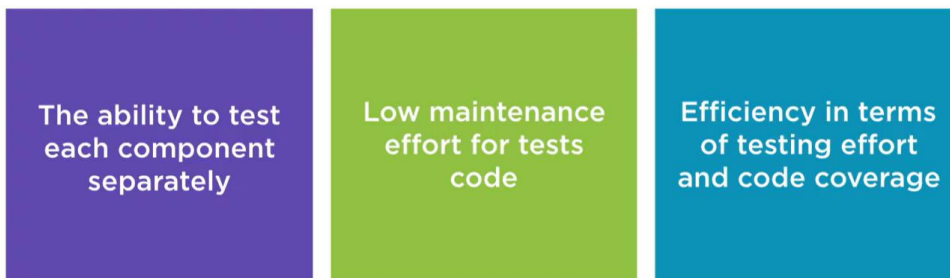Let's take a look at what does each characteristic means.

Maintainable Software:

The ability to fix a bug	The ability to fix a bug	The ability to fix a bug
Without introducing new bugs	Without it re-occurring in the future	With editing a low number of components

Extendable Software:

The ability to add a new feature	The ability to add a new feature
With a minimum change of current components	Without changing the shape of the original architecture

Testable Software:

The ability to test each component separately	Low maintenance effort for tests code	Efficiency in terms of testing effort and code coverage

Understandable for new Developers (Stakeholders):

"Truth can only be found in one place:

the code."   -Robert C. Martin

# Evaluating the complexity of Android Applications

Android applications may seem very simple from the outside but they can become quite complex on the inside.

- Can become very complex
- High number of core components
- High number of libraries
- Have restrictions from the OS
- Components have to comply to restrictions

A typical Android Application

A typical android application seemingly simple can have huge number of components in it. To get a better idea, look at the following structure of a typical android application

Dependency Injection	API	Custom Views
Widget	Models	Custom Transitions
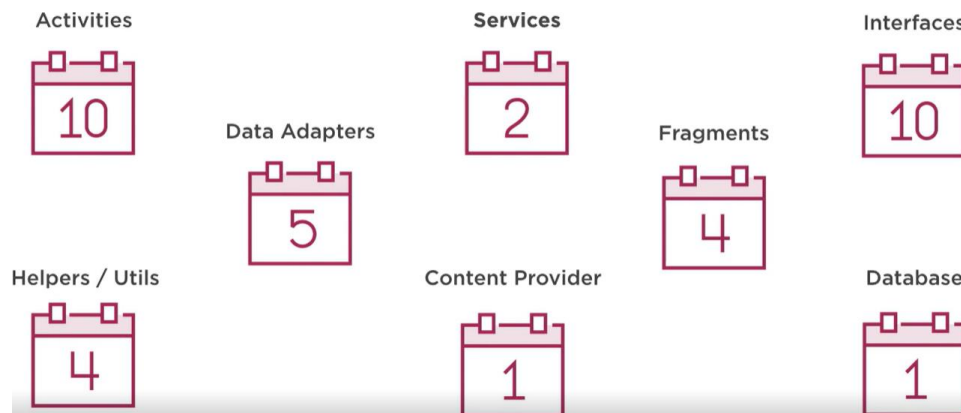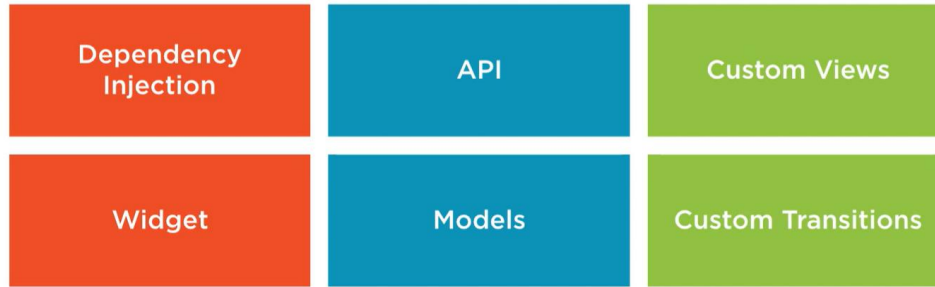
Interoperability between Components

Another important feature of android applications is interoperability between different components. To effectively use and implement this, it must be:

- Highly decoupled from each other
- Able to consistently communicate with each other