

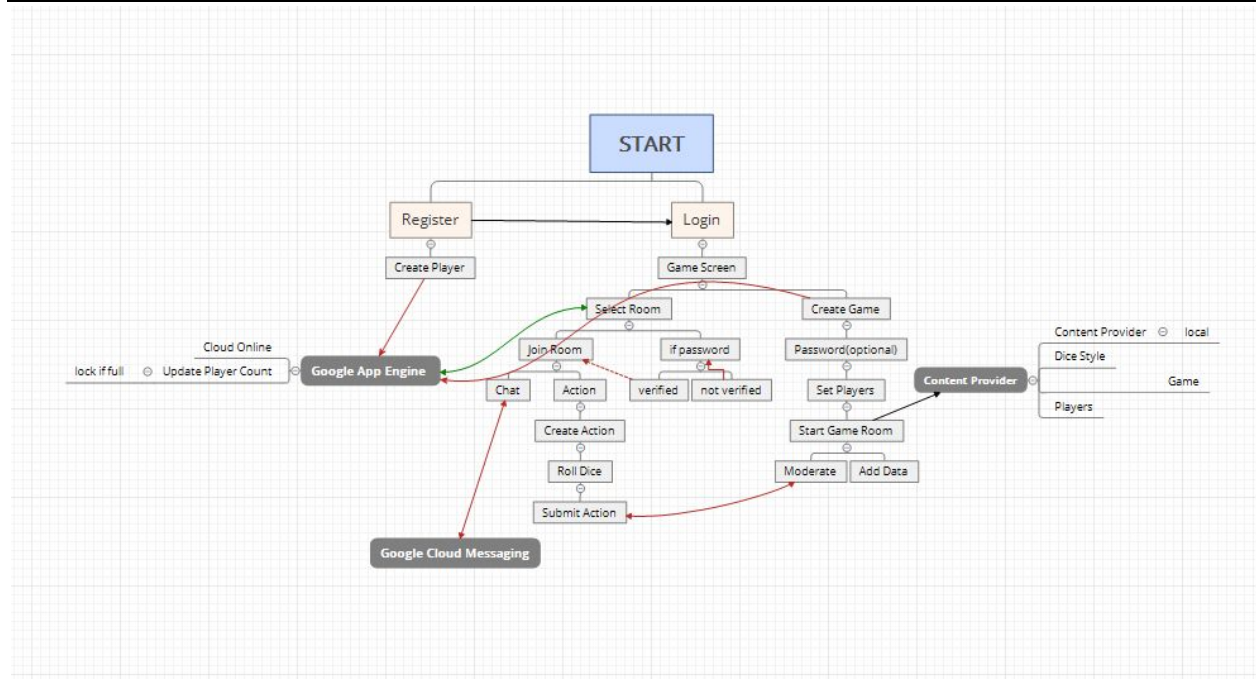
TECHNICAL SPECIFICATIONS:

Libraries:

1. GreenRobot EventBus 3.0 (Event bus for Async to Sync events)
2. ButterKnife (Dependency injection) 7.0.1
3. Objectify (persistent data local) 5.1.13
4. Picasso (image manipulation)

Needs	What it Does	Why it is needed
Google App Engine	<i>Stores Data of all games on server, stores all players along with password and additional data via online endpoints.</i>	<i>Persistent online data, cloud usage.</i>
Content Provider	<i>Data is access stored from Google App Engine (See FlowChart)</i>	<i>Needed to pull data from SQLite database, ensure prompt delivery of content. Future apps will also have access to this data.</i>
Shared Preferences	<i>Used to store Game Name as well as other small bits of data. (Login details)</i>	<i>Needed to store important bits of data for later use, such as logging on and remember login information. Prevents loss of this data.</i>
RecyclerView / Loaders	<i>Displays data accessed from online endpoints.</i>	<i>Smarter use of resources than using ListView, GridView or other basic android list types. Loaders perform async data loading, ensuring up to date data from online source. Prevents users from being out of sync with each others posted data.</i>
AppCompat Material Design	<i>General use of Material Design.</i>	<i>Follows guidelines for Material design ensuring quality of app and ease of use (accessibility).</i>
Google Location	<i>(optional) help Game Masters find other players in area.</i>	<i>Added as a luxury will become more useful as new features are added.</i>
Google AdMob	<i>Free version does not allow creation of games. Adds displayed during login and current events screen.</i>	<i>Helps to pay for bandwidth consumed by users, as well benefit in app development for further features.</i>

AsyncTask	<i>Custom processing of data on separate thread, integrates Google Cloud Endpoints into processing of data from online, compares to local data and updates if needed. Only processes data on creation game, new post or player login/logout.</i>	<i>Important to the backbone of the app, performs multiple back thread functions. Prevent main thread from locking up degrading user experience.</i>
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FUTURE:

LWJGL 3.0	<i>Future use for 3D with animated rolls.</i>
Google Sign In	<i>Future use for Sign-in verification via google account.</i>
*Google Cloud Messaging	<i>Future use for instant messaging along with other features.</i>