

Application high level flow

- 1) On App start → load an empty List view and start the background thread as well to fill the list
- 2) In a background thread → create Google connection and get a list of object from Google API (Metadata only)
- 3) Next → start a multi-threaded loop and in that loop - bind metadata Item to the UI list
 - a. Binding use UI thread (Dispatcher)
 - b. As soon as Image Name is binded to the UI element it calls an ImageConverter.
In this converter → load the actual image using asynchronous process so it won't block the UI thread
- 4) After adding the items to the UI → start another multi-threaded loop
 - a. This loop also runs in asynchronous mode
 - b. In this loop - call the Google Vision API to get the annotation information
 - c. After receiving the info - bind it to the UI text property
 - d. Next this is indexed in the Lucene.Net

Both the above loop #3 and #4 are wrapped in a while loop which is used for processing 10 items at a time to control number of threads running at the same time (+ to improve the UI response)

- 5) From here it is pretty straightforward → call the index based on user query input