**Main Activity – Section 1.0**

Gathered devise information – Useful for rendering appropriate xml on the screen based on differences in screen size. This is not used in this application so far.

**Main Activity Layout XML – Section 1.1**

Using linear layout inside constraint layout to use weight so that button width adjusts to different screen sizes. Button height used = 48dp, based on Google Android buttons specifications found at - https://material.google.com/components/buttons.html#buttons-style. **Observation -** The background image provided to me for "animation test" button seems to be having the text in bold.

**Alternative approach –** Since the chat data was locally stored and the image was to be retrieved from server, I could have loaded the non-repeating URL string on to a array list and retrieved the images first before the activity became visible (onStart())

**Chat Activity – Section 2.0**

Used LruCache to cache the image, AsyncTask to run the background, server thread. The other approach was to load all the images during – splash activity and to pass it to the chat activity to display in real time.   
**Observation –** The images did not have unique ID therefore, in the real life chat scenario, if the user updates his/her image with same name, then the image will not be updated on the screen. The url string is used to compare images in cache for this scenario.

**Chat Activity Layout XML – Section 2.1**

Added a progress bar to display loading while the list image is cached in the main memory.

**Login Activity – Section 3.0**

The POST request is sent through AsyncTask background thread. The response was displayed on the custom alert dialog inflated by a separate xml.

**Login Activity Layout XML – Section 3.1**

Used custom alert dialog xml for the alert dialog.

**Animation Activity – Section 4.0**

The specification mentioned that the icon be animated to flip to 0% alpha and 100% alpha but did not specify duration, I have chosen 1 second. The spec mentioned – icon should be allowed to dragged, it did not mention drop so I have allowed the image to be allowed to be dragged.

**Animation Activity Layout XML – Section 4.1**

Used Android 24 – ConstraintLayout.

**NOTE –** Did not override all the methods of the AppCompatActivity class because the application did not require it. Therefore all lifecycles of the activities are not mentioned in the code.

**Chat List Items Layout XML – Section 2.2**

**IMPORTANT NOTE** - The use of Table Row is not required here because all rows are identical. Since the requirements specified the usage of "TableView", Table Layout is used here.  
Followed the wireframe diagram and not the Google's android design specifications found at - <https://material.google.com/components/lists.html#lists-specs>   
List’s text view left margin is not 72dp as required by Google specs.

**Toolbar XML – Section Toolbar**

Followed Google Android Specification for padding and other spacing. Link to the specification - (<https://material.google.com/components/lists.html#lists-specs>  
**IMPORTANT NOTE** - The toolbar title - "tv\_chat" is a Header text and the font mentioned in the guide is "Machinato Extra Light", 22pt but in the wireframe image, the font seems to be bold with a smaller font size.

**Timeline**

A total of 8 hours was taken to complete the application. Needed research on drag and drop of icon.

2 hours to design the UI – All five activities including the splash screen

4 hours to develop the design – ListView caching needed extensive debugging.

2 hours for researching about the drag and not drop implementation