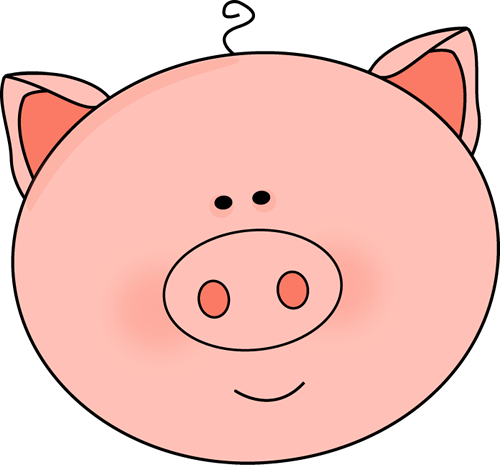
ShopAdmin



# Summary

The App must be capable to run on different screen sizes. Therefore the Android SDK provides APIs to handle for different screen configurations.

Within Android SDK various terms are used to handle this problem:

Screen Size:

Size of the mobile screen measured diagonal. The API differentiates between SMALL, NORMAL, LARGE and EXTRA-LARGE screen sizes.

Screen density:

Measurement for the quantity of pixels on the screen. API values are LOW(~120dpi), MEDIUM(~160dpi), HIGH(~240dpi), EXTRA-HIGH(~320dpi), EXTRA-EXTRA-HIGH(~480dpi) and EXTRA-EXTRA-EXTRA-HIGH(~640dpi)

Orientation:

Differentiation for the screen orientation, measured from the users point of view. Orientation can either be LANDSCAPE and PORTRAIT.

Resolution:

The total number of physical pixels on the screen. The API does not recommend to work with resolutions.

Density-Independent pixes(DP)

The Android SDK introduced a virtual measurement which is recommended to be used for UI-design. Hereby one DP is equal to one pixel on a 160dpi screen. DPs and the corresponding (minimum) screen sizes:

SMALL: 426dp x 320dp

NORMAL: 470dp x 320dp

LARGE: 640dp x 480dp

XLARGE: 960dp x 720dp

# Current State

| **Screen** | **Small Screen/Low density** | **Normal Screen/High density** | **Large Screen/Medium Density** | **Extra Large Screen/Extra High Density\*** | **Comments** |
| --- | --- | --- | --- | --- | --- |
| Login |  |  |  |  |  |
| Register |  |  |  |  | Register should be scrollable on small layouts |
| Main Screen |  |  |  |  | On small layouts no margin in header lines. |
| Edit Screen |  |  |  |  | Layout could be changed according to register view |
| Reports |  |  |  |  |  |

\*XTRA Large is not properly simulated

# Recommendation

Besides some best practices within the Android API (Usage of WRAP\_CONTENT and FILL\_PARENT keywords as well as measurement in DP for screen elements) to fit the application for various device sizes various layouts have to be generated and stored in the resource structure of the app as follows:

RES

LAYOUT(Default and used for normal screen sizes)

LAYOUT-LAND(Default for landscape mode)

LAYOUT-LARGE

LAYOUT-LARGE-LAND

LAYOUT-SMALL

LAYOUT-SMALL-LAND

LAYOUT-XLARGE(Mostly tablets)

A similar handling for bitmaps is recommended as well.