# Image filtering

**Purpose of app**

Apply filters to chosen image and save filtered image to device.

**Key features**

User can choose image to filter in three ways: Select image from device's storage; Download image from Internet by specifying its URL; Download image from Internet by choosing default URL. User can apply any amount of filters to image. Available filters are: Color inversion; Convert to grayscale; Gaussian blur; Sharpening; GBR (Switch colors in such way: Red to Green, Green to Blue, Blue to Red); BRG (Switch colors in such way: Red to Blue, Green to Red, Blue to Green). User can clear all filters from image to reapply filters in other way. User can save filtered image to local storage. Fundamental Android components used in this app Activities to: Choose image load method; Choose image from gallery; Apply filters to image; DownloadManager Service to download image from URL; BroadcastReceiver to process finished download; ContentProvider to load and save images in local storage.

**Interaction with remote web service**

In case user chooses to download image from default URL, the image will be downloaded from <http://picsum.photos/500> This URL generates random JPEG image sized 500x500 pixels.

**Main components**

