Networking in Android

**Chapter Objective**

• Remind some network concepts

• Know how to make a HTTP request and process its JSON response

A network is a series of points or nodes interconnected by communication paths

**Embedded package**

• Create URL from string:

URL url = new URL( ’ your url ’ );

• Make a request to server:

HttpURLConnection connection =

(HttpURLConnection) url . openConnection ();

connection . setRequestMethod( ’GET’ );

connection . setDoInput (true );

connection . connect ();

Receive response:

int response = connection . getResponseCode ();

InputStream is = connection . getInputStream ();

• Process response:

Different response type - different ways to process

For JSON and XML: parsing

Image: decode to bitmap

Bitmap bitmap = BitmapFactory . decodeStream( is );

Close connection after all:

connection . disconnect ();

• Limitation: a lot of codes, no queue, no cache

**Permissions**

• Privacy is an important aspect of Android programming.

• One of the ways to implement or improve security and privacy is to request

permissions to several actions.

• The app will be stopped if it does not have proper permission.

• The action sensitivity is classified into 2 levels:

Normal level: has no effect on user privacy, e.g. internet access, set

wallpaper, ...

Dangerous level: has some effect on user privacy, e.g. access contact

list, access SMS, read from or write to external storage.

• Define the permission in the manifest:

<uses−permission android :name=”your permission” />