



MIT

Global Startup Labs

<http://aiti.mit.edu>

Indonesia Summer 2013
Meetup 04 – Yamba Project



Today's Meetup

- Week 2 – Advanced Android
- The Yamba Project
- Multithreading
- The Preference Activity
- Today's Assignment

This week...

Week 2 – Advanced Android

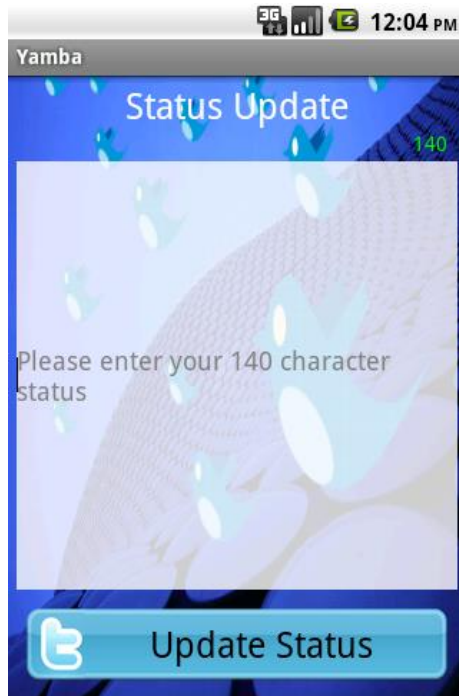
- Yamba Project Introduction
- Multithreading
- Preferences
- Services
- Database management
- Broadcast receivers
- Content providers
- System Services

[Gargenta – Learning Android](#)

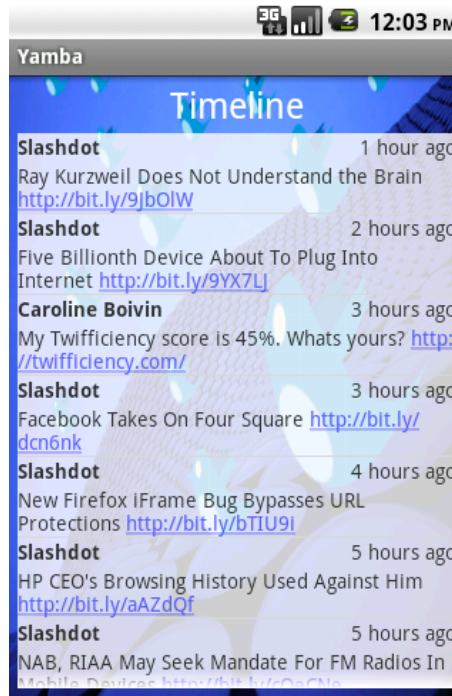
The Yamba Project

Yamba

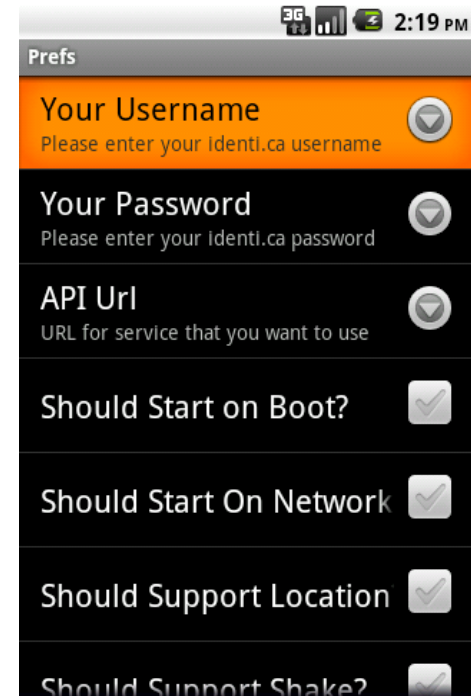
- Yet Another Micro Blogging App
 - „Twitter Clone“



Status Activity



Timeline Activity



Preferences Activity

Yamba.marakana.com

- Login with
 - UserName: Student
 - Password: Password

The screenshot shows the website's header with the 'marakana' logo and navigation links for 'Login', 'Help', and 'Search'. A message states: 'This site was created to support Yamba Android app in [Learning Android](#) book. Notices older than 12 hours are automatically removed. Create an account by inviting yourself as "student".'

The main content area is titled 'student and friends' and displays a list of posts from a user named 'student', each accompanied by a yellow smiley face icon. The posts are:

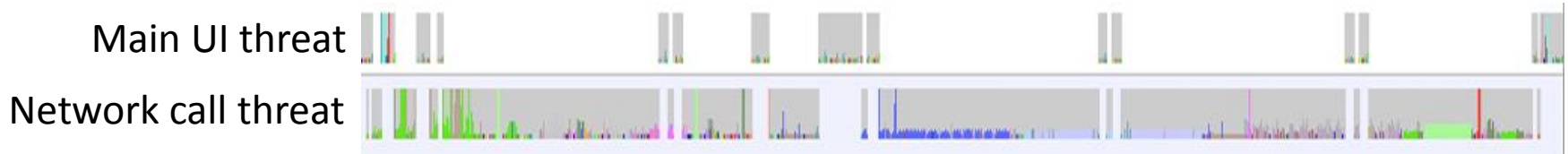
- hello
[about an hour ago](#) from jtwtter-yamba
- access
[about an hour ago](#) from jtwtter-yamba
- Yes! finally got it.
[about an hour ago](#) from jtwtter-yamba
- plz work

A right-hand sidebar menu is visible, containing the following items:

- Personal
- Replies
- Profile
- Favorites
- Subscriptions (with a small 'm' icon)
- Subscribers (None)
- Groups (None)

Multithreading

Multithreading



- Execution of multiple tasks “in parallel”
 - Asynchronously
- Incentive: Execute a task that may take a long time without blocking the main task
 - Does not affect user experience
- Solution: Use of `AsyncTask()`

AsyncTask()

- Create a new subclass of AsyncTask() class

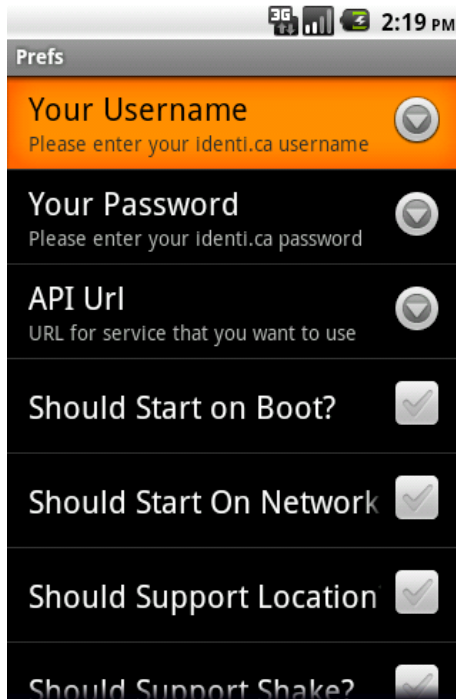
```
class PostToTwitter extends AsyncTask<String, Integer, String> {  
  
    @Override  
    protected String doInBackground(String... statuses) {  
        //initiate background activity  
    }  
  
    @Override  
    protected void onProgressUpdate(Integer... values) {  
        //What happens when task is executed  
    }  
  
    @Override  
    protected void onPostExecute(String result) {  
        //Action to be executed once task is finished,  
        //e.g. showDialog("Status Update finished")  
    }  
  
}
```

Implement methods:

- doInBackground
- onProgressUpdate
- onPostExecute

App preferences

App preferences



- Define the user-specific setting for an application
- Use preference framework provided by Android
- Collection of name-value pairs.
 - E.g. username - Markus, language - German

Four Steps to your Preference Activity

- Create the Preference resource file *prefs.xml* in *res/xml/prefs.xml*
- Implement *PrefsActivity.java*
- Register new activity in *AndroidManifest.xml*
- Provide a way to start the preference activity
 - Use options menu

Today's Assignment

Today's Assignment

Start your Yamba project!

- Get the Yamba-Template from the AITI page
- Implement AsyncTask()
- Implement the permissions activity

You should be able to post to yamba.marakana.com using your own username by the end of today

Documentation: Gargenta – Learning Android: Chapter 5, 6 and 7