

Programming mobile devices

Files, images and the TTS mechanism

Exercise 1

- ▶ Write a simple photo gallery in which images will be scrolled using the `HorizontalScrollView` widget.
- ▶ Use the components discussed in the lecture
- ▶ http://www.tomaszx.pl/materialy/pum_wyk3_en.pdf (slides from 38).
- ▶ Photos should be read from a memory card.
- ▶ Please use Android 5.0 as a target.

Manifest:

```
<uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE">  
</uses-permission>
```

Exercise 2

- ▶ Introduce yourself to the Text-To-Speech mechanism:
<http://www.androidhive.info/2012/01/android-text-to-speech-tutorial/>
- ▶ On this basis, create a "Reader" application that will read the content of the textbox to the user after pressing the corresponding button.
- ▶ In addition, it is possible to load a (strictly defined) text file from a resource file or a memory card (for reading).
- ▶ Make sure you can change the speed of speech.

Reading data from a text file

```
File sdcard = Environment.getExternalStorageDirectory(); //PATH to SD card
File file = new File(sdcard,"plik.txt"); //Name of a text file

StringBuilder text = new StringBuilder(); //Helper object

try {
    BufferedReader br = new BufferedReader(new FileReader(file));
    String line;

    while ((line = br.readLine()) != null) {
        text.append(line);
        text.append('\n');
    }
}
catch (IOException e) {
    //Here you have to handle exceptions associated with reading a file
}

TextView tv = (TextView)findViewById(R.id.text_view);
tv.setText(text);
```

Manifest:

```
<uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE">
</uses-permission>
```