Distributed Systems – Assignment 1

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(a) One Activity

(b) Another Activity

```
@Override
protected void onProgressUpdate(final Integer...
    values) {
  textview.setText(index + " done");
  progress.incrementProgressBy(values[0]);
}
```

Listing 1: Descriptive Caption Text

Figure 1: Pack portrait screenshot next to each other and make them referable through the subfigure package. When next to each other, make them the same height.

ABSTRACT

We developed our apps for the HTC Desire Nr. 25. We completed all of the tasks and our apps worked without crashes on the device.

1. INTRODUCTION

2. SENSING WITH ANDROID

1. Describe the user interface design for listing all available sensors of the smartphone
2. Describe the user interface design for continuously displaying the readings for a particular sensor
3. Show screenshots for the MainActivity, SensorActivity and ActuatorsActivitiy. Please include only 3 screenshots packed together as shown in Figure 1(a) and Figure1(b)
4. What are the main methods implemented in this part? How do they interact? You can include a state transition diagram like the one shown in Figure 2.

Figure 2: Only include useful figures. Do not simple copy something from a Web page.

3. THE ANTI-THEFT ALARM

1. Explain in details the sensor logic you designed which is needed to trigger the alarm. You can also include code snippet as shown in Listing 1.
2. What are the main methods implemented in this part? How do they interact? You can include a state transition diagram like the one shown in Figure 2.

Hint: Just like figures, code listings can convey concise information about your solution. However, you still need to reference and explain them in the text (cf. Listing 1). Only use a listing for really important parts and omit them if it would just be a random part of your code.

4. ENHANCEMENTS

1. Explain the design/implementation details to visualize the sensors' readings
2. We didn't use a sound alarm for our application. For the local notice we used the vibration of the device. Furthermore we implemented a possibility to alarm the owner of the device through someone else's phone. That means that if an alarm goes off, the app sends a text message to a specified number. Or if there is no number specified we started to implement the possibility to send an email to the phone owner's email address.

5. CONCLUSION

Give an overall conclusion that summarizes the main challenges you encountered and your lessons learned.