

## Global Meeting Report 03.12.2013

*Team ITU*

Date	Time	Duration	Attendees	Communication medium
<b>Tuesday, 03.12.2013</b>	17:10pm (CET)  19:10pm (EAT)	~ 2:00 h	ITU Team (3 total): <ul style="list-style-type: none"><li>• Tomas</li><li>• Christoffer</li><li>• Theresa</li></ul> Kenya Team (1 total): <ul style="list-style-type: none"><li>• Cecil</li></ul>	Skype

## Agenda: Status-Update

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### Agenda (planned):

1. Discuss Status Update Kenya
2. Discuss Status Update ITU
3. Strathmore university's interest in an occupancy analyzer
4. Server
5. Assignments for this week

### Meeting progress

- Started at around 17:10 CEST (19:10 EAT)
- ITU student (Jacob) was excused
- Kenya student (Ann) was missing
- Kenya student (Wayua) is not in this project any longer

### Status update from Team Kenya

- User interface is done
- The android app is not done; still can't get data from the server due an exception
- Started to work with the Raspberry Pis
- Currently testing with dummy data
  - Instead of UUID normal IDs
  - Integers as coordinates

### Status update from Team ITU

#### Report:

- Started to write the mandatory report

#### Server:

- Implemented the server methods "GetAvailableRooms" and "CheckPredictions"
- Added additional table in the DB for storing the statistical information
- Methods are not tested and not ready yet (server-side)

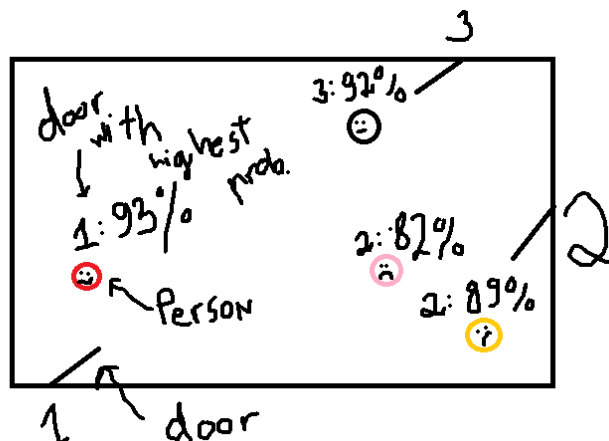
## Strathmore university's interest in an occupancy analyzer

- The student center is called the 'green building' in terms of green thinking concept of environmental conservation
- The idea has been to use IT to enhance conservation by monitoring usage of e.g. water, lights etc.
- The school management has not yet been convinced enough to buy into the idea
- The department (which the MSC program is under) has taken this initiative to work with interested students to achieve this noble idea
  - this will be achieved in the beginning through research and the collaboration with ITU (this project)
  - it's at its initial stages
- In addition: earlier in the year some computers were stolen in the same building, so there is need to improve surveillance

## Decisions/Discussions

- 1. Suggestion for prediction data for the android app (not chosen!)
  - The server method “checkPrediction” should return something like this: for each person in the room there will be a coordinate of an exit, if the probability for this person and exit is over 60%
  - When the probability for an exit is less than 60%, return nothing
  - The server is doing the logic (which exit has a probability over 60%), because that would be better for the performance of the android app
  - In JSON something like this (just an abstract example!):
 

```
roomID: {
  objectlist: {
    person1: {exit1: {x:435, y: 644, timestamp:
3753786523978}}
    person2: {}
    person3: {}
  }
}
```
- 2. Suggestion for prediction data for the android app (chosen)
  - The server method “checkPrediction” should return something like this: All the probabilities for each person and exit
  - Example:



- In JSON something like this (just an abstract example!):
 

```
roomID: {
  objectlist: {
    person1: { exit1:0.93, exit2: 0, exit3: 0.07}
    person2: {exit3: 0.92, exit1: 0.05, exit2:0.03}
    person3: {exit2: 0.82 ...}
    person4: ...}
  }
}
```
- The android app chooses the highest probability for each person (or chooses the probabilities which are over 60%)
- The border of 60% can then be also configured on the android app
- Second suggestion is much more flexible, because the android app doesn't have to rely on the server for future functionality; The app can request all the prediction data and can decide what to do with it
- Team ITU will check if the preferred suggestion can be implemented and how the JSON will look like

### Instructions for setting up the server

- The following exception means that the server application cannot connect to the MySQL database

```
C:\wamp\www\GSDServer-2013-11-22\GSDServer>java -jar GSDServer.jar
Runner: Starting.
Runner: Shutting down
Exception in thread "main" com.mysql.jdbc.exceptions.jdbc4.CommunicationsException: Communications link failure

The last packet sent successfully to the server was 0 milliseconds ago. The driver has not received any packets from the server.
    at sun.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method)
    at sun.reflect.NativeConstructorAccessorImpl.newInstance(Unknown Source)
    at sun.reflect.DelegatingConstructorAccessorImpl.newInstance(Unknown Source)
    at java.lang.reflect.Constructor.newInstance(Unknown Source)
    at com.mysql.jdbc.Util.handleNewInstance(Util.java:411)
    at com.mysql.jdbc.SQLException.createCommunicationsException(SQLException.java:1117)
    at com.mysql.jdbc.MysqlIO.<init>(MysqlIO.java:355)
    at com.mysql.jdbc.ConnectionImpl.coreConnect(ConnectionImpl.java:2461)
    at com.mysql.jdbc.ConnectionImpl.connectOneTryOnly(ConnectionImpl.java:2498)
    at com.mysql.jdbc.ConnectionImpl.createNewIO(ConnectionImpl.java:2283)
    at com.mysql.jdbc.ConnectionImpl.<init>(ConnectionImpl.java:822)
    at com.mysql.jdbc.JDBC4Connection.<init>(JDBC4Connection.java:47)
    at sun.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method)
    at sun.reflect.NativeConstructorAccessorImpl.newInstance(Unknown Source)
    at sun.reflect.DelegatingConstructorAccessorImpl.newInstance(Unknown Source)
    at java.lang.reflect.Constructor.newInstance(Unknown Source)
    at com.mysql.jdbc.Util.handleNewInstance(Util.java:411)
    at com.mysql.jdbc.ConnectionImpl.getInstance(ConnectionImpl.java:404)
    at com.mysql.jdbc.NonRegisteringDriver.connect(NonRegisteringDriver.java:317)
    at java.sql.DriverManager.getConnection(Unknown Source)
    at java.sql.DriverManager.getConnection(Unknown Source)
    at gsdserver.database.DbHelper.getConnection(DbHelper.java:175)
    at gsdserver.database.DbHelper.createDatabase(DbHelper.java:73)
    at gsdserver.Runner.main(Runner.java:35)
Caused by: java.net.SocketException: Permission denied: connect
    at java.net.DualStackPlainSocketImpl.connect0(Native Method)
    at java.net.DualStackPlainSocketImpl.socketConnect(Unknown Source)
    at java.net.AbstractPlainSocketImpl.doConnect(Unknown Source)
    at java.net.AbstractPlainSocketImpl.connectToAddress(Unknown Source)
    at java.net.AbstractPlainSocketImpl.connect(Unknown Source)
    at java.net.PlainSocketImpl.connect(Unknown Source)
    at java.net.SocksSocketImpl.connect(Unknown Source)
    at java.net.Socket.connect(Unknown Source)
    at java.net.Socket.connect(Unknown Source)
    at java.net.Socket.<init>(Unknown Source)
    at java.net.Socket.<init>(Unknown Source)
    at com.mysql.jdbc.StandardSocketFactory.connect(StandardSocketFactory.java:259)
    at com.mysql.jdbc.MysqlIO.<init>(MysqlIO.java:305)
```

- This is due to the server hasn't been set up correctly

- Instructions for solving this problem:  
<http://stackoverflow.com/questions/2983248/com-mysql-jdbc-exceptions-jdbc4-communicationsexception-communications-link-fai>
- The following lines show how it should look like in the cmd, when everything is set up correctly:  
Runner: Starting.  
RaspberryInterpreter-Server: Started.  
LeacherInterpreter-Server: Started.  
LeacherInterpreter-Server: Listening.  
RaspberryInterpreter-Server: Listening.

### Assignments Team ITU

- Theresa will write the meeting report
- Will check on the preferred solution for the prediction data method and will send Team Kenya how the JSON will look like
- Finishing Implementation of the last requirements and testing
- Update the JAR-file and share it with Team Kenya
- Write a status update on the day of the next regularly meeting (Tuesday, 10. Dec. 2013) and send it to Team ITU before the meeting
- Check and answer emails according to this project regularly in the next days and try to be visible on Skype as much as possible

### Assignments Team Kenya

- Set up the server correctly and installation of the server application. If there are any other problems occurring, contact Team ITU.
- Write a status update on the day of the next regularly meeting (Tuesday, 10. Dec. 2013) and send it to Team ITU before the meeting
- Check and answer emails according to this project regularly in the next days and try to be visible on Skype as much as possible

### Reminder

16. Dec. 2013 Hand-in of the report (End of project)

**➔ Just 12 days for finishing the report (end of project)!**