Ambient Assisted Lilving

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Outline I

1. General plan for the future
2. Website

Presentation Outline

1. General plan for the future
2. Website

Main project

Ambent assisted living (AAL)

We wil focus on a robot that assists elderly people in their everyday life. There are several issues that need to be solved to assure usable robot.

- The robot should be able to localize itself in the building (GPS does not work inside buildings)
- The robot has to understand human commands and it should be possible to call robot from any place in the building if help or assistance is needed (the robot should know where we are)
- The robot should be able to understand sentiments of the human commands (*Help me you stupid robot!*)
- The robot should be able to move freely in the building and indentify threats (obstacles, laying person, fire, smoke)

Subprojects

Subtasks

- We need a robot (Lego Mindstorm robot somehow connected with Android mobile phone)
- Localization via trilateration, BLE beacons (and possibly the particle filtering)
- Following human wearing BLE necklace
- Speech recognition based on grammar/language model
- Full navigation and object detection in building

Presentation Outline

1 General plan for the future

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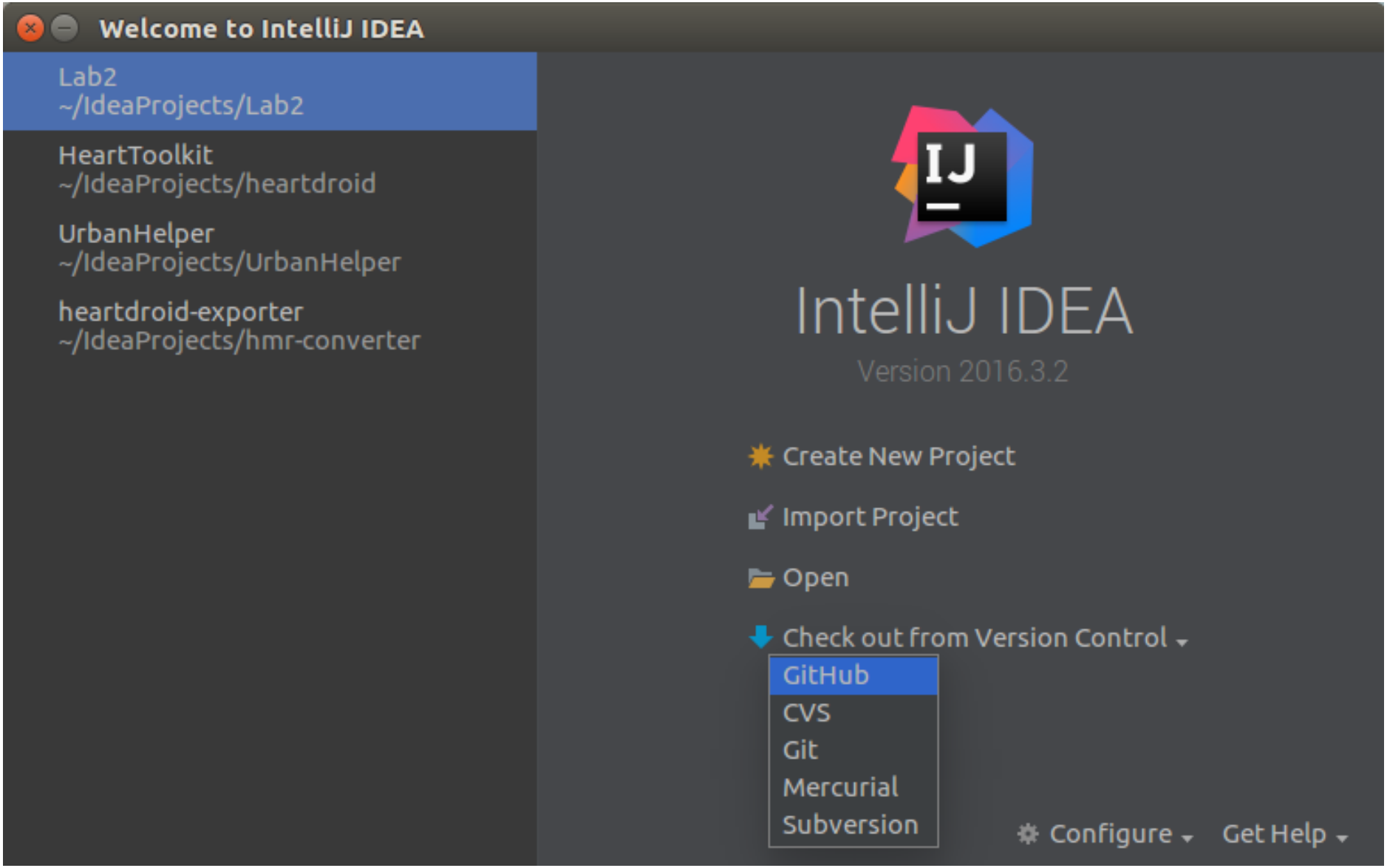
Roboclub website

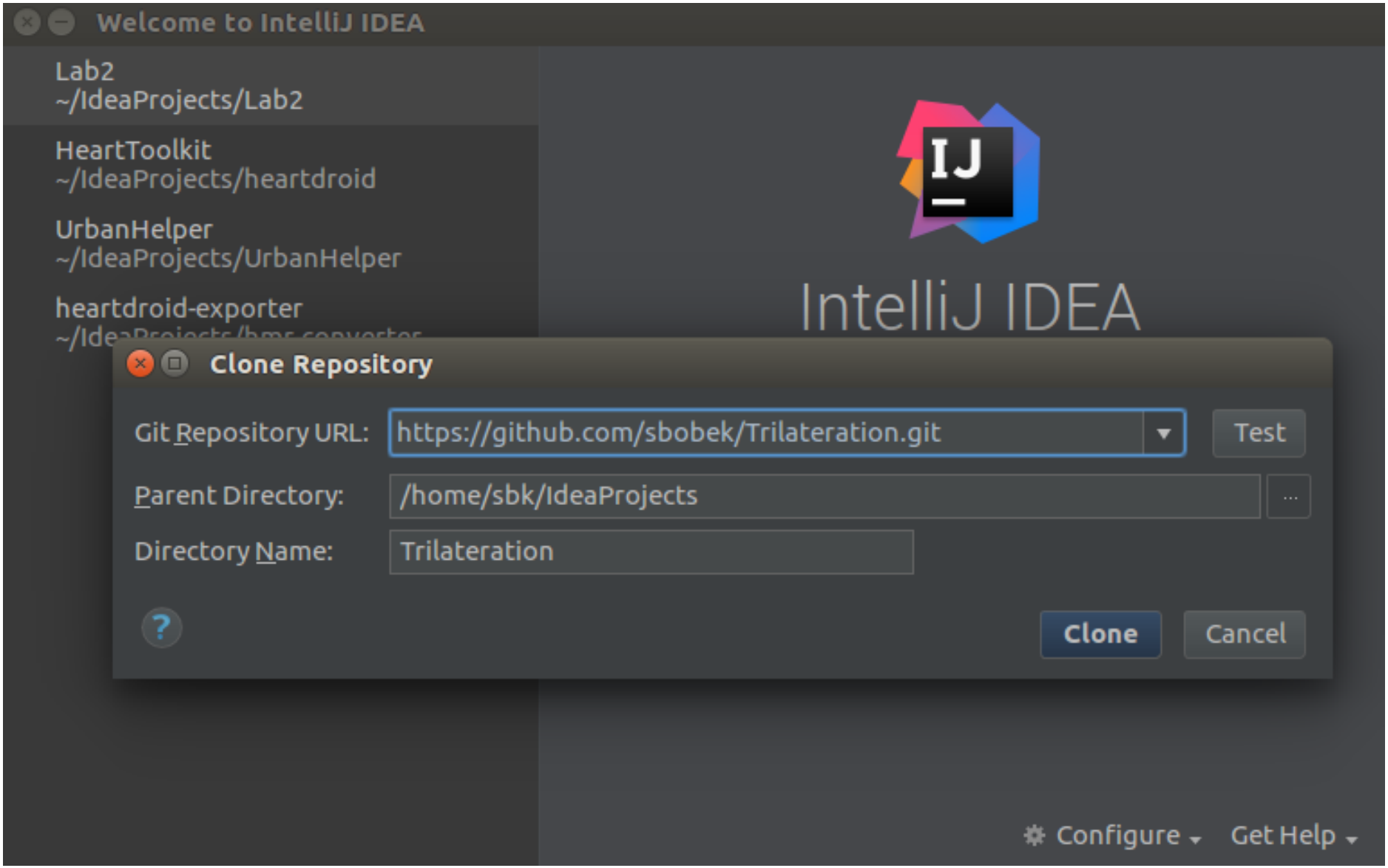
Slides, exercises, homeworks:
`http://home.agh.edu.pl/~sbobek/doku.php?id=did:roboclub:start`.
Login: isk
Password: RobotsFTW!

The riddle solver

Code repos


Welcome to IntelliJ IDEA
Lab2
~/IdeaProjects/Lab2
HeartToolkit
~/IdeaProjects/heartdroid
UrbanHelper
~/IdeaProjects/UrbanHelper
heartdroid-exporter
~/IdeaProjects/hmr-converter
IJ
IntelliJ IDEA
Version 2016.3.2
Create New Project
Import Project
Open
Check out from Version Control
GitHub
CVS
Git
Mercurial
Subversion
Configure
Get Help

Code repos


Welcome to IntelliJ IDEA
Lab2
~/IdeaProjects/Lab2
HeartToolkit
~/IdeaProjects/heartdroid
UrbanHelper
~/IdeaProjects/UrbanHelper
heartdroid-exporter
IntelliJ IDEA
Clone Repository
Git Repository URL:
https://github.com/sbobek/Trilateration.git
Test
Parent Directory:
/home/sbk/IdeaProjects
Directory Name:
Trilateration
Clone
Cancel
Configure
Get Help

Thank you for your attention!

Any questions?

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