2016 Summer Internship

Aptoide TV Hardware Detection

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Weekly Report
18 - 22 July

22 July/2016

Daily Reports

Monday - July 18th
- Further research about Bluetooth recognition and initial implementation.
- Indepth research about HID, which essentially are the type of devices we want to recognize.
- Last point led to research about InputDevice class, which if its usefulness is confirmed, it may lead to a restructure of this project, as it makes recognition fairly trivial.
- Mock implementation of InputDevice and its listener for testing purposes.
- Initial InputDevice testing which points to a possible stable implementation of device recognition.

Tuesday - July 19th
- Indepth testing of several different kinds of Bluetooth and USB devices (Gamepads, TV Remotes, Keyboard, Mouse, etc.).
- Further implementation of device recognition and several code tweaks.
- Initial testing of several different kinds of devices on an AndroidTV (Sony Bravia).
- Logging useful information about tested devices for possible future use (Vendor and Product ID).

Wednesday - July 20th
- Creation and coding an example project.
- Testing different kinds of devices in example project on Sony Bravia.
- Conversion to library project for initial release.
- Initial release:
  - Pushing to library and example project to Git.
  - Creating README.md (description and how to use the library).
- Documenting library classes and methods (JDoc).
- Research about automatic testing and preparing to implement unit testing.

Thursday - July 21ˢᵗ

- Preparing test project to do an analysis of several different devices.
- Documentation and analysis of every device available on the office in order to improve recognition algorithm (see https://docs.google.com/document/d/1Vw1gcduL2oMhtW0se3IvQIH8wanySyLB3CMG4A1ZHpg/)

Friday - July 2
- Setting up automatic testing for the project (Travis CI) and fixing cryptic bugs on build.
- Final test with test project.
- Project upload to Caixa Magica's repo.
- Elaboration of weekly report.
- Starting to create final presentation for this project.

Task review

Unfortunately, due to research a better/quicker way to implement what was needed was found and this meant that the whole project was done this week. This also means that the previous plan is now scrapped and next week a new one will be made accordingly.

Notes / Brainstorming

- The proposed project seems about done. It could eventually be needed to test with more devices, but for now it has a very high correct detection rate.
- It is fairly impossible to do unit testing for this project since it uses InputDevice and it's not possible to do a mock implementation of this class.