Programming for IoT Applications

Edoardo Patti

Project Guidelines

Project Guidelines

Team

- team members: **4**
- team building: autonomous
- Each team needs to send an email to edoardo.patti@polito.it specifying team members info (name, surname and student-ID)

Project Guidelines

To complete a project each team has to:

- submit a proposal that describes the general idea for an IoT platform and the role of its components. It must be compliant with
  - The topics of the course
  - The provided “proposal template.docx”.
- submit the source code
- make a “promo” video (few minutes) describing the proposed idea available on youtube
- make a “demo” video (demonstrating that each component of the platform works) available on youtube.
- orally discuss the developed platform. The discussion date is flexible (no time constraints)
- **In any case, all provided HW material must be strictly returned by beginning of September 2017 (strict deadline).**

Project Guidelines

- Each team has to submit a proposal by December 22nd
  - Send by email the provided template filled in all its parts to edoardo.patti@polito.it.
- A proposal can either be:
  - **ACCEPTED** as it is.
  - Asked to perform **MINOR** or **MAJOR REVIEW.** The team has to modify the proposal following the given indications.
  - **REJECTED**.
- Only after the proposal is **ACCEPTED**, the team can start developing the platform
- Submit videos and source code to edoardo.patti@polito.it at least 5 days before the discussion.
- Example of videos are available at https://goo.gl/Pdtp54

Project Guidelines

- The max final score for the project is **18**/30.
  - Each phase of the project is given a score.
- A **bonus** can be given (**max 2 points**) if the project includes additional tools and/or third-party platforms not presented during the course.
- The project will be **immediately rejected** if:
  - The IoT platform does not follow the **microservices** design pattern **(DO NOT DEVELOP MONOLITIC SOFTWARE)**
  - The IoT platform is not developed following the **Object Oriented Programming**

Project Guidelines

Good practice to have a good score:

- Define a proper **data-format** for data exchange
- Make the IoT platform **scalable to manage various IoT devices** (e.g. adding/removing new devices at run-time without modifying the source-code)
- Use **configuration file** (e.g. a JSON file) to configure your IoT platform