URBAN-GEO BIG DATA

PRIN PROJECT: *URBAN GEOmatics for Bulk Information Generation, Data Assessment and Technology Awareness*

Workshop on Volunteered Geographic Information

CNR, 16/04/2018

PSAB
An open source Participatory Sensing App Builder

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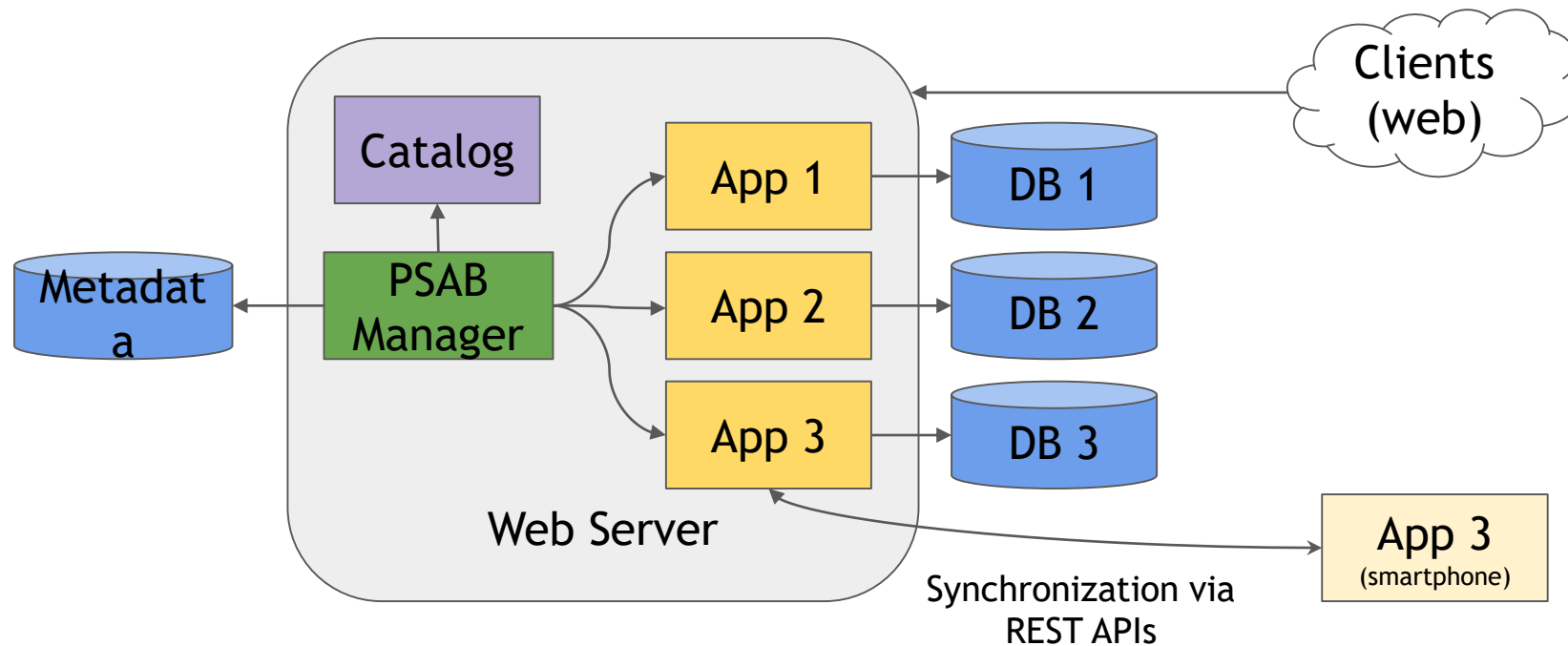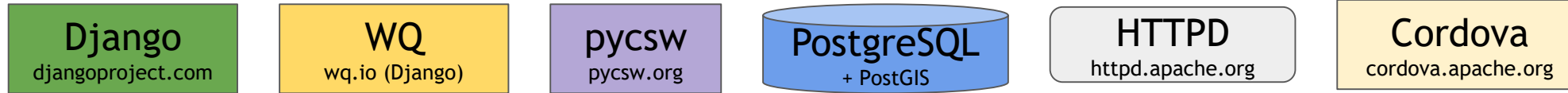maria.brovelli@polimi.it, francesco.frassinelli@mail.polimi.it

Motivations

Provide a tool in order to create customized applications for data collections, which the following characteristics:

▶ Easy to use

    ▶ No special skills required, only a web browser is needed

▶ Open Source

▶ Multi-platform

    ▶ Web

    ▶ Android

    ▶ iOS (work in progress)

▶ No data-silos

    ▶ Metadata are published taking advantage of existing standards

Architecture & Software stack

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XLSform

"XLSForm is a form standard created to help simplify the authoring of forms in Excel. Authoring is done in a human readable format using a familiar tool that almost everyone knows - Excel." -- http://xlsform.org/

▶ How to create an XLSForm?

▶ Web tools (easy to use, but limited)

▶ Manual editing (useful to extend simple forms)
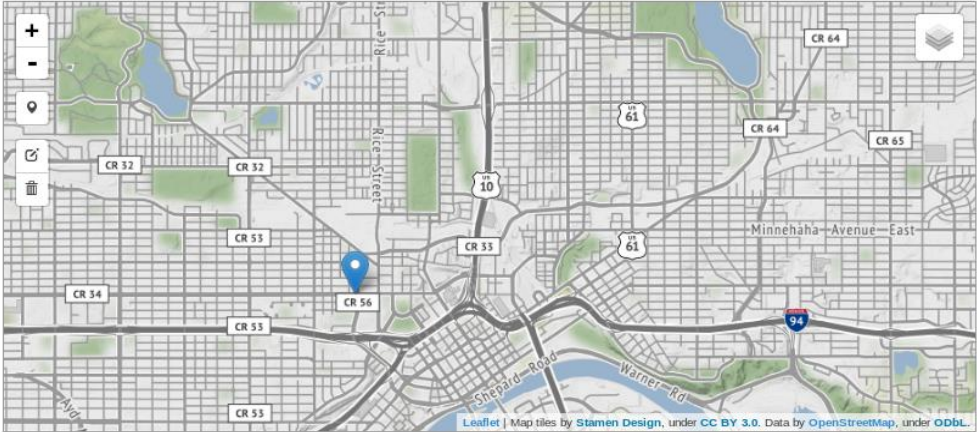
How it works

Create a new application

PSAB app (example) - Add new data

Notes:

▶ Position can be manually set moving the pinpoint for better accuracy

▶ Data are stored locally and synchronized when an internet connection is available

Metadata

Dublin Core Metadata Element Set 1.1 -
http://dublincore.org/documents/dces/

Provided by the user	Computed automatically	PSAB defaults
title, subject, description, coverage	creator, identifier, date	contributor, publisher, type, format, language, rights

Notes:
- ▶ identifier: URI to the resource (GeoJSON file)
- ▶ subject: list of tags/keywords
- ▶ rights: link to ODbL v1.0

Known issues and future improvements

▶ PyCSW incompatibilities with Python 3

▶ iOS support is on the way

  ▶ Can be provided using Phonegap + iOS key

▶ Icons for multiple choices are not supported currently

▶ Better overall consistency, theming and customization

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Thank You!

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