SATELLID: PERSONAL KNOWLEDGE MANAGER

with Web Technologies

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OUTLINE

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INTRODUCTION

There are tons of daily personal knowledge that must be managed,
but they can’t be handled with regular tools.

Daily personal knowledge are things like details of:

- people profile and contacts
- list of organizations and companies
- glossary of definition
- hardware and software product listing
- publication of books or presentations
- known or visited places
- upcoming and attended events
- multimedia info such as music or video
- and lot of other miscellaneous things

There are a lot of tools and systems for each of them.

Need for just a single system

How to manage those daily personal knowledge with single system?

PRIMARY BACKGROUND

Solve a problem around *daily knowledge management*
with a system to make it more effective.

PRIMARY OBJECTIVE

Define and develop a knowledge manager called
“Satellid knowledge manager”, that built using Web technologies.

PROBLEM DEFINITION

1. How to manage tons of personal knowledge we have with just a simple and single system of knowledge manager?
2. How can knowledge manager naturally structure the data into knowledge that has context?

PROBLEM SCOPE

- Create a *simpler system* to do daily knowledge management for personal use
- The main methodologies are agile, MVP, and ATDD.
- The main technologies are MongoDB, JavaScript, and Meteor framework.

LITERATURE STUDY

KNOWLEDGE MANAGEMENT SYSTEM

Data-Information-Knoweldge-Wisdom (DIKW),
Knowledge Management System (KMS),
Personal Knowledge Manager

Software development life cycle (SDLC)

Agile methodologies,
Minimum Viable Product (MVP),
Acceptance Test Driven Development (ATDD)

DESIGN PATTERN

BROWSE, READ, EDIT, ADD, DELETE (BREAD),
simple interaction and interface design with mockup,
Single Page Application (SPA)

DATABASE

Document-based NoSQL database called MongoDB

With JavaScript related technologies,
build a Web application,
that use full stack framework called Meteor

ANALYSIS & DESIGN

SATELLID

Target user:

Person who frequently gather and need to manage their knowledge at almost everytime.

User Types:

Regular person, researcher, engineer, developer, designer, information architect, event speaker, student, teacher, leader, collaborator, colleagues, recruiter, etc

DESIGN: CONTEXTUAL SYSTEM

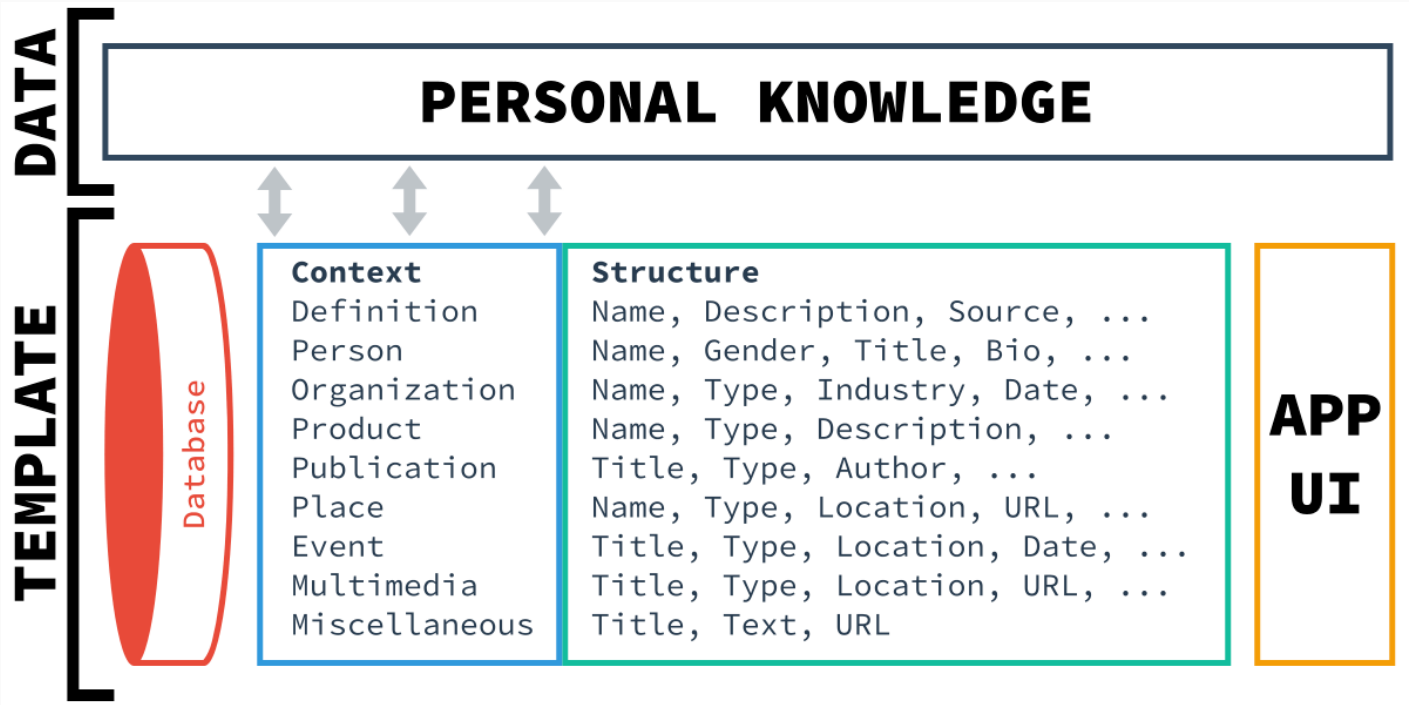
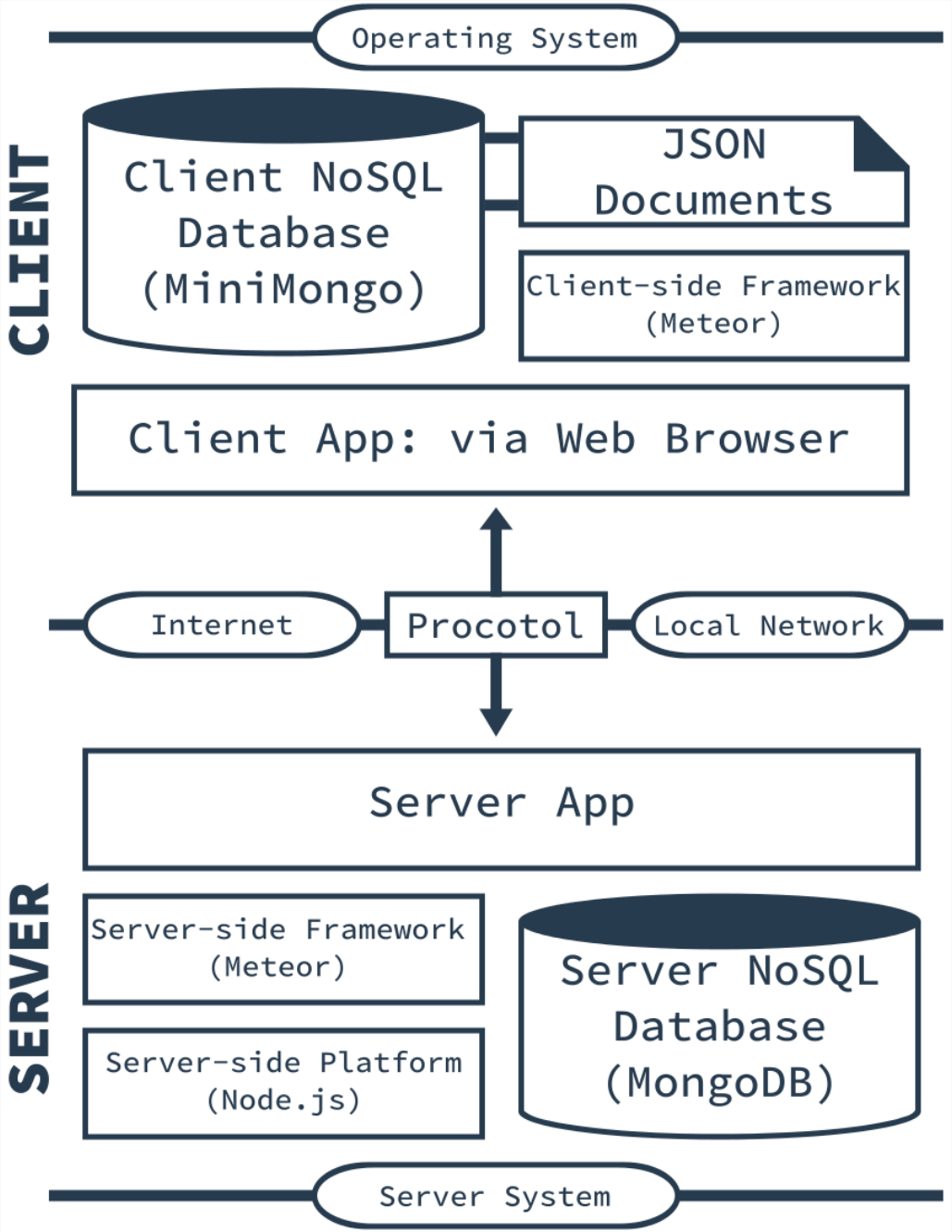


Figure 1: A data and template approach to classify the knowledge with its context and structure.

DESIGN: APPLICATION ARCHITECTURE



IMPLEMENTATION & TESTING

Snippets of Server Code

```
if (Meteor.isServer) {
  Meteor.startup(function() {
    ...
  });
}
```

Snippets of Client Code

```
if (Meteor.isClient) {
  Template.add.events({
    "click": function() {
      ...
    }
  });
}
```

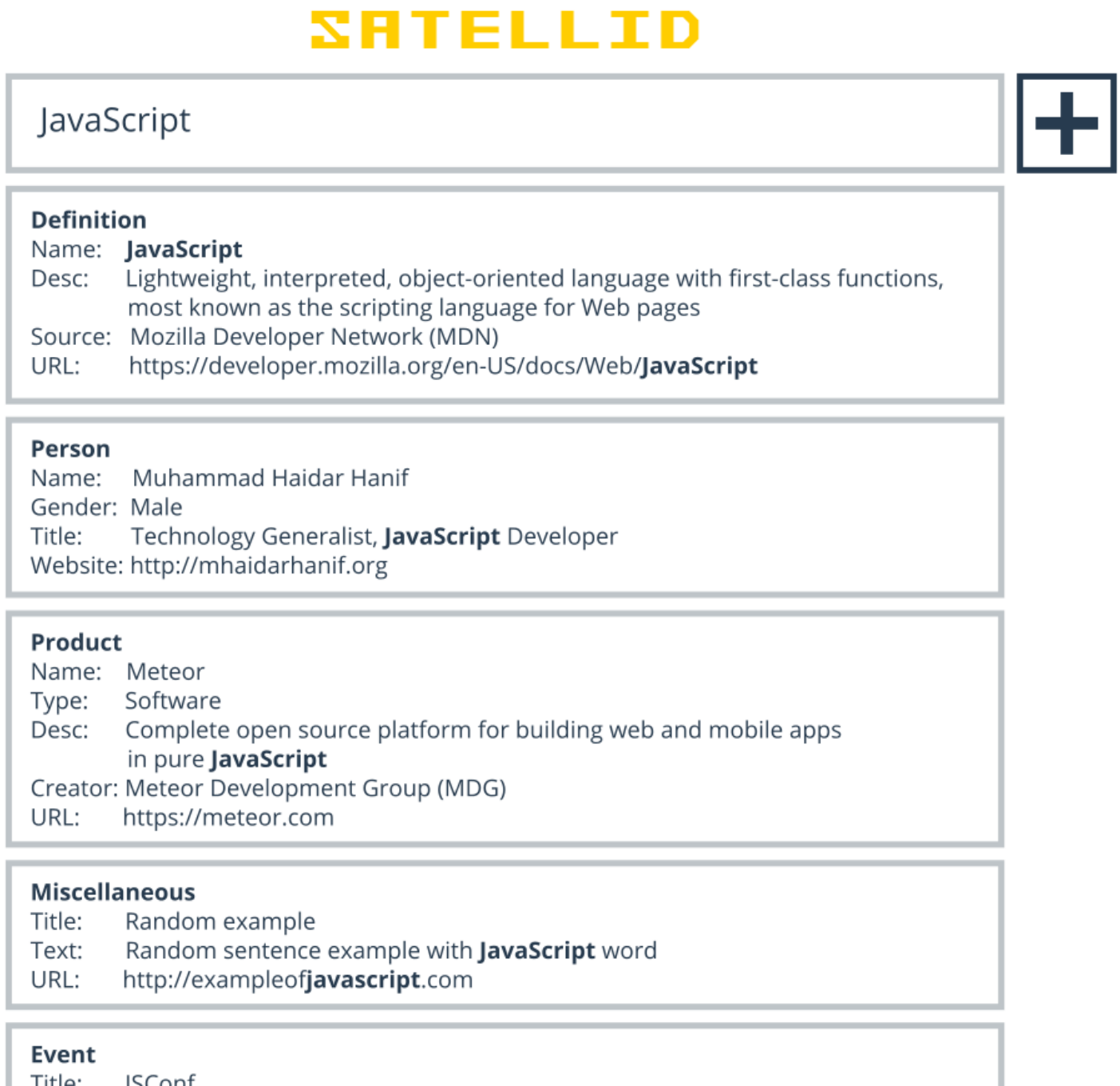
APP RESULT

After running in local, app result is available at
`localhost:3000`

After deploying, app result is available at
`http://satellid.meteor.com`

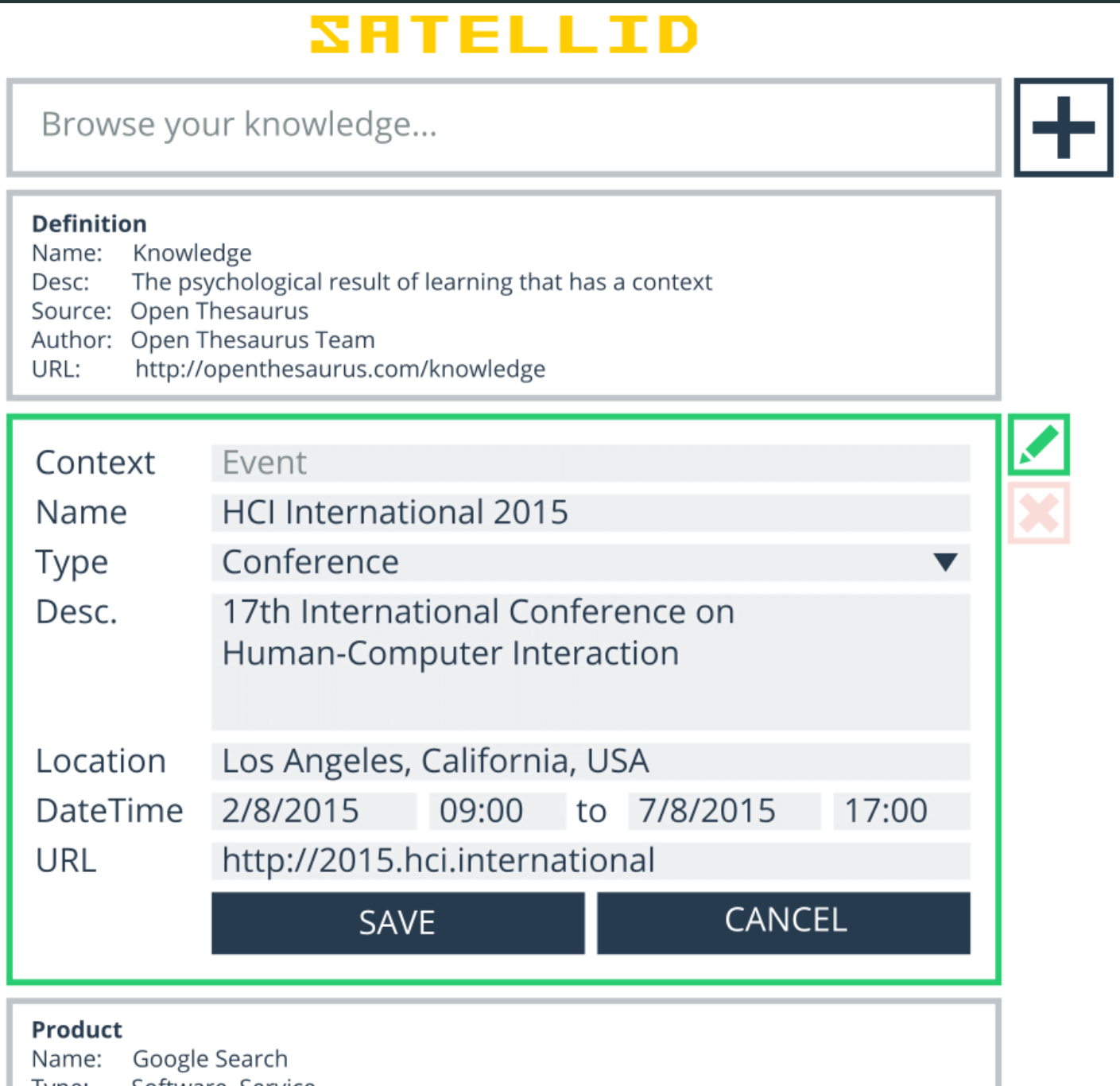
APP RESULT SCREENSHOTS: READ

APP RESULT SCREENSHOTS: BROWSE



APP RESULT SCREENSHOTS: ADD

APP RESULT SCREENSHOTS: EDIT



APP RESULT SCREENSHOTS: DELETE

CLOSING

CONCLUSION

Simple and single system of managing tons of personal daily knowledge that implemented with Web technologies

SUGGESTION

There could be some major issues, such as:

- There is no custom form yet.
- There is no easy way to import and export, including backup.

So further and iterated improvement will remain to be done continuously.

Major

- Can have custom form yet.
- Can easily import and export, even backup.

Others

Account system, more predefined context and field, BREAD the template, more custom configuration, multimedia support, integration with other networks, encryption, etc

Thank You