SATELLID: PERSONAL KNOWLEDGE MANAGER

with Web Technologies

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OUTLINE

Introduction

Literature Study

Analysis & Design

Implementation & Testing

Conclusion & Suggestion

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 or facts of:

People Profiles and contacts

Organizations, Schools, and Companies

Glossary of Definition

Hardware and Software Product Listing

Publication of Papers, Books, News, or Presentations

Known or Visited Places or Locations

Upcoming and Attended Events or Schedule

Multimedia Info such as Photo, Music, or video

Lot of Other Miscellaneous Things

All of these are also the context of knowledge

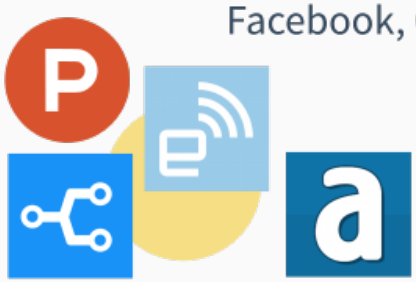
There are a lot of tools/systems for each, that contains knowledge

Gmail, Skype

Facebook, Google+

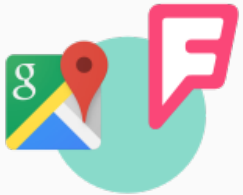
LinkedIn, CrunchBase

Wikipedia, Silk, Wordnik

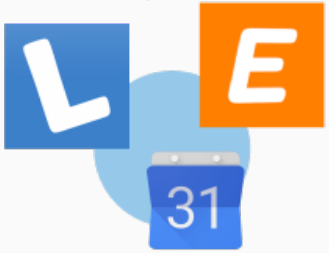


Product Hunt, Engadget StackShare, AlternativeTo

Academia.edu, Google Drive and Docs

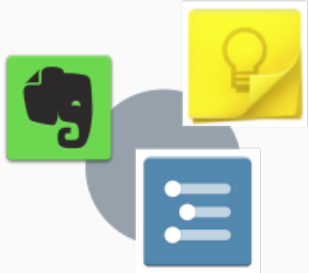


Google Maps, Foursquare



Lanyrd, EventBrite, Google Calendar

Photos app, YouTube, Last.fm



Evernote, Google Keep, Workflowy

There is a need for a personalized single system

How to manage those daily personal knowledge with single system?

PRIMARY BACKGROUND

Solve a problem around *daily knowledge management*
with a system that is personal

PRIMARY OBJECTIVE

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

PROBLEM DEFINITION

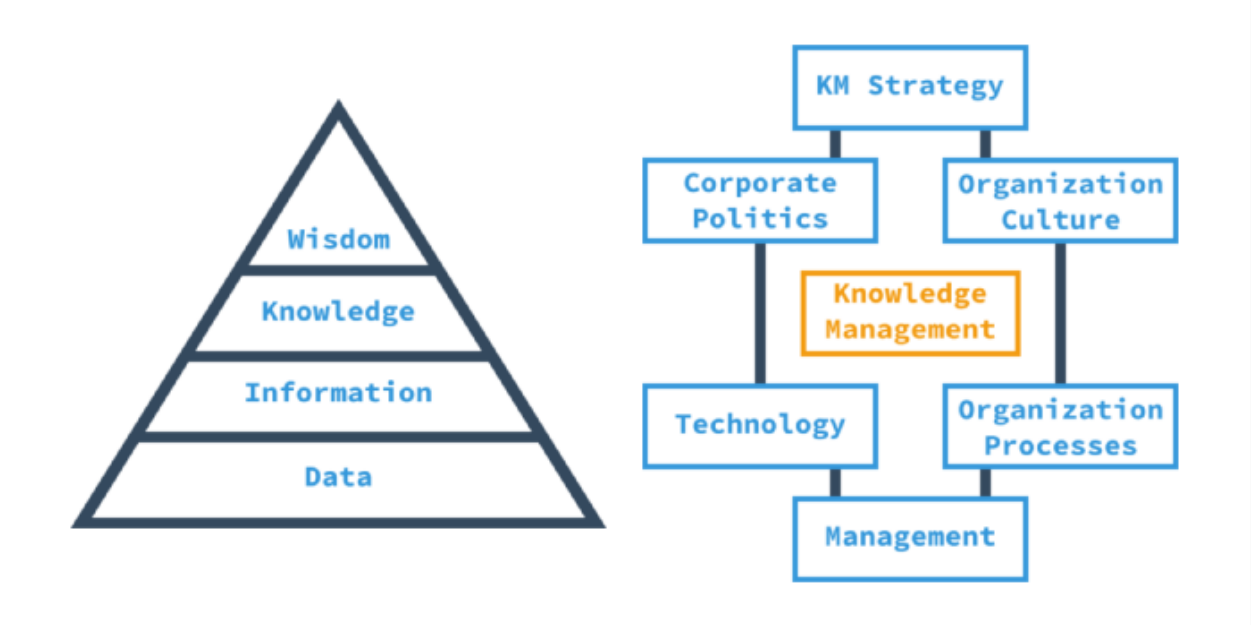
1. How to manage tons of personal knowledge we have with just a simple and single system of knowledge manager?
2. How can knowledge manager naturally structure the data into knowledge that has context?

PROBLEM SCOPE

- Create a simple 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.

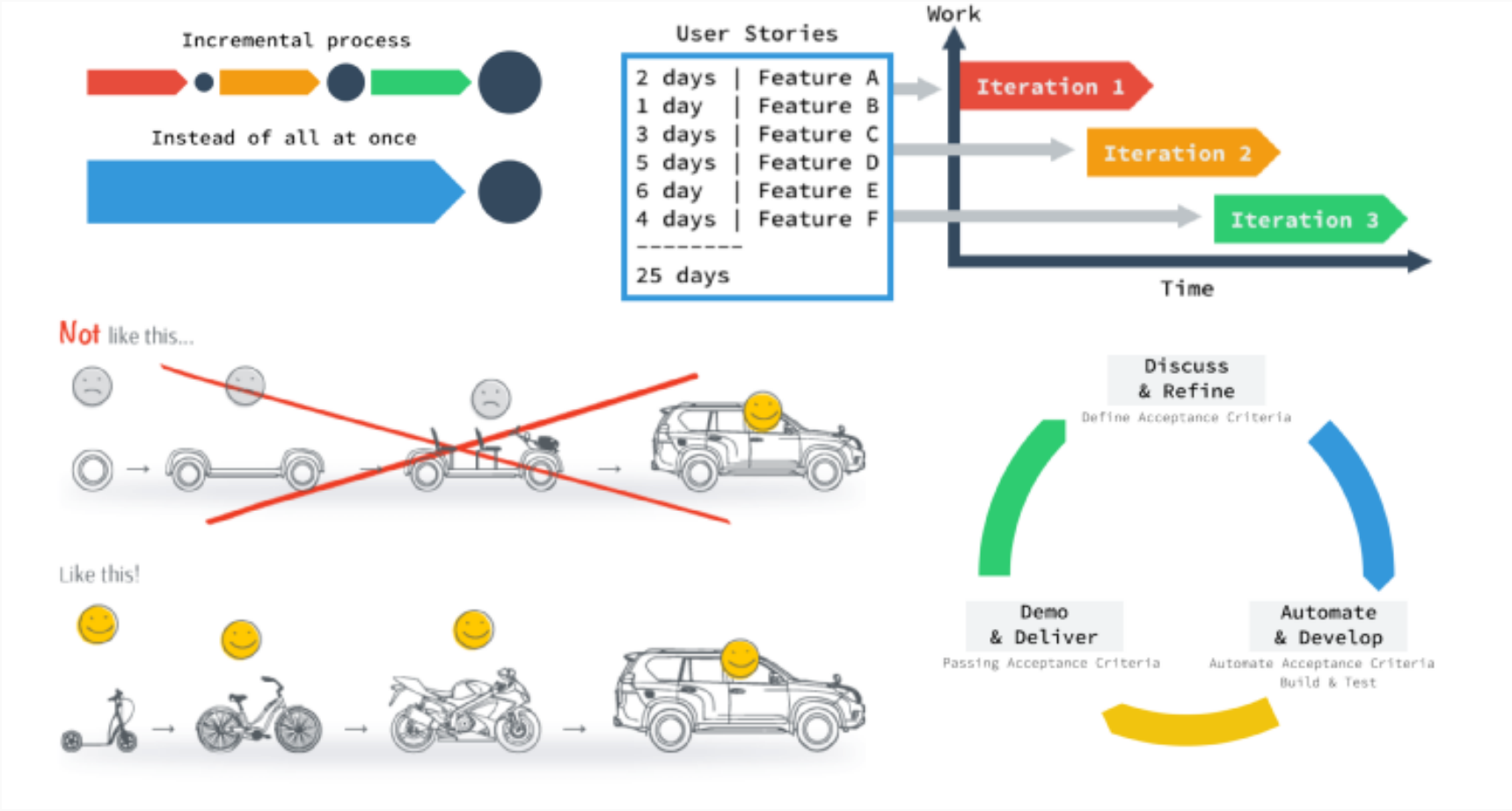
LITERATURE STUDY

KNOWLEDGE MANAGEMENT SYSTEM



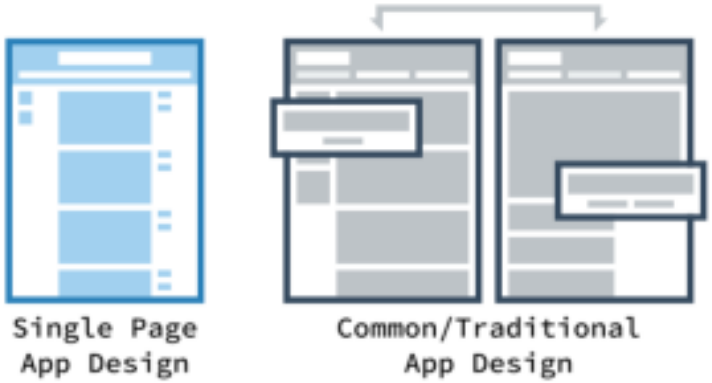
Data-Information-Knowledge-Wisdom (DIKW),
Knowledge Management System (KMS),
Personal Knowledge Manager

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,
controlled using Git

ANALYSIS & DESIGN

Target user:

Person who frequently gather and really want to manage their tons of knowledge at almost everytime

User Types:

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

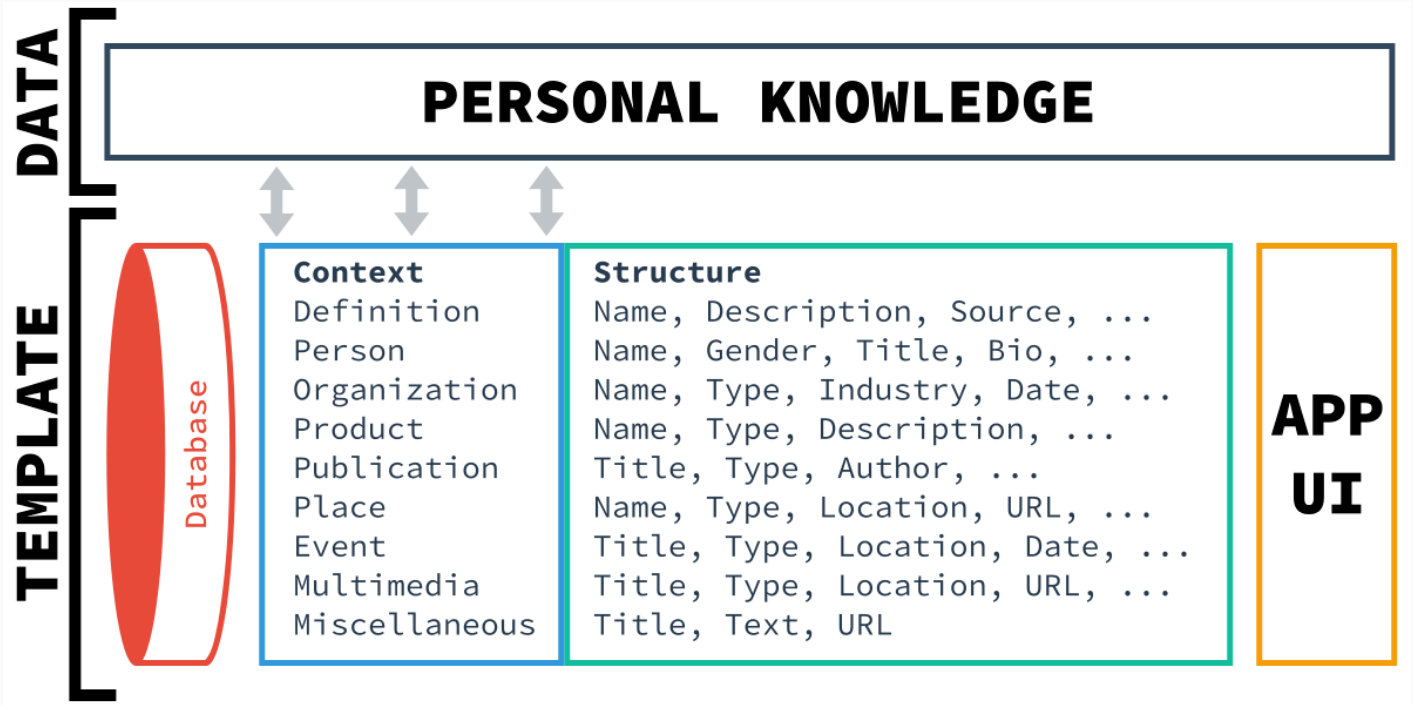
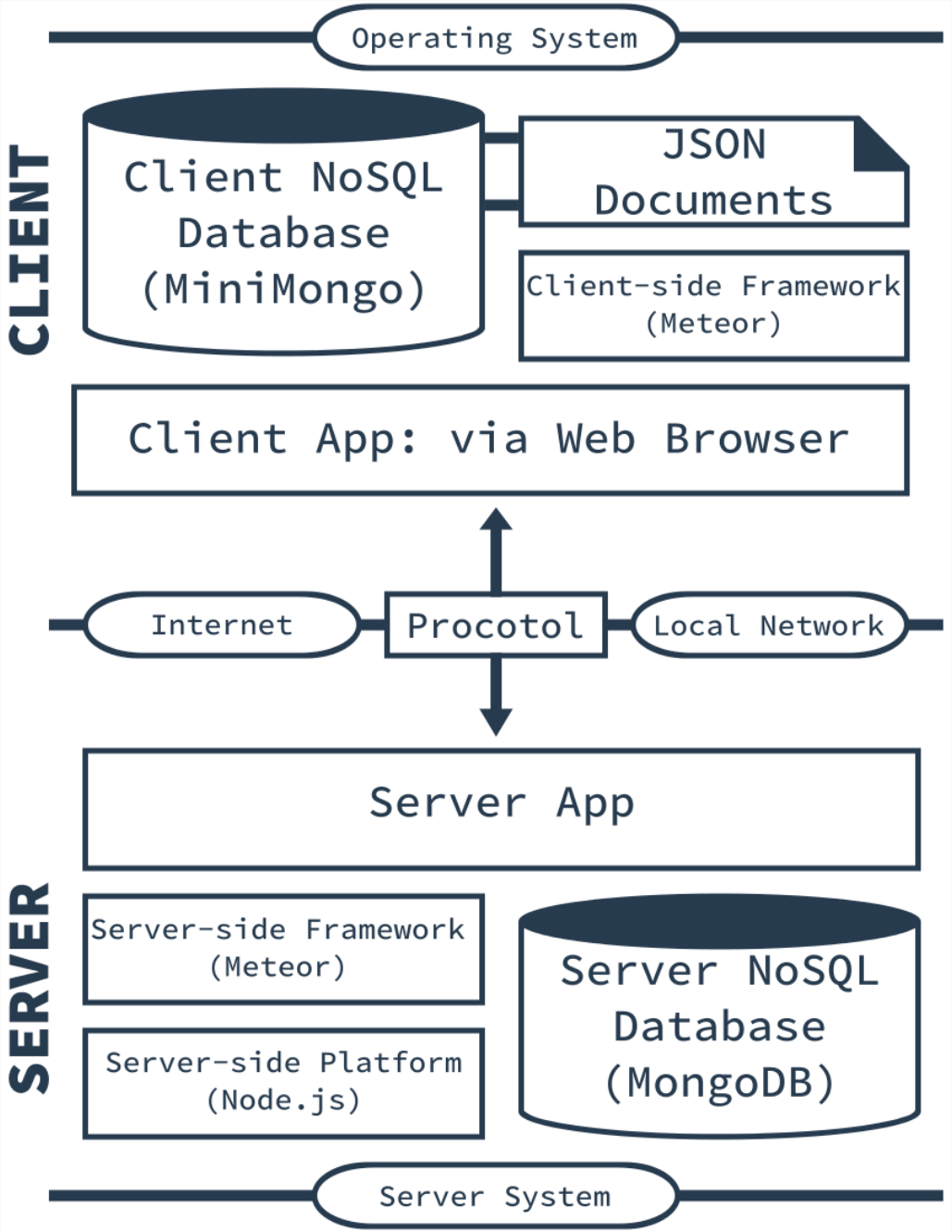


Figure 1: A data and template approach to classify the knowledge with its context and structure.

DESIGN: APPLICATION ARCHITECTURE



IMPLEMENTATION & TESTING

IMPLEMENTATION: CODE

Snippets of Server Code

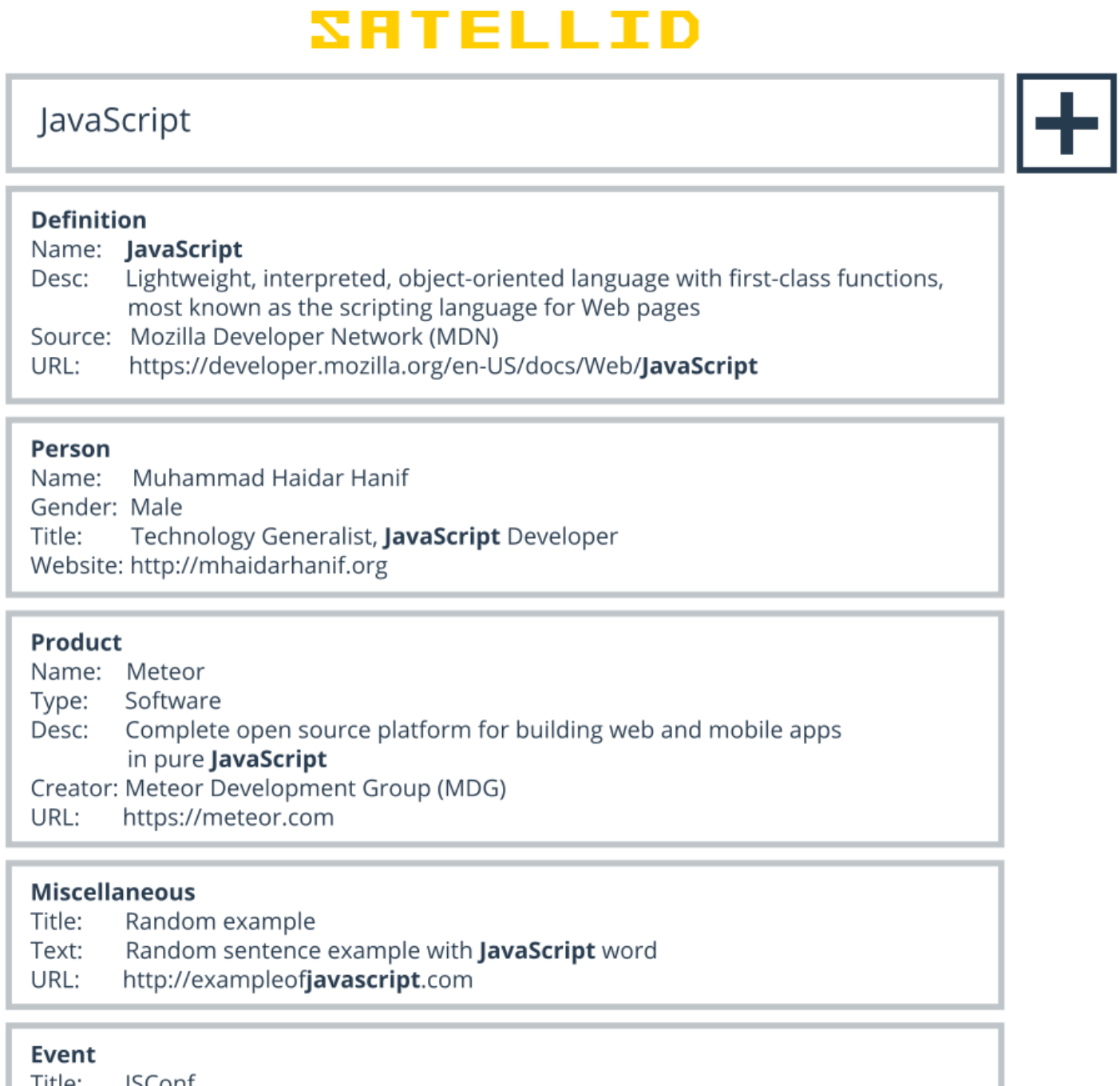
```
if (Meteor.isServer) {
  Meteor.startup(function() {
    ...
  });
}
```

Snippets of Client Code

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

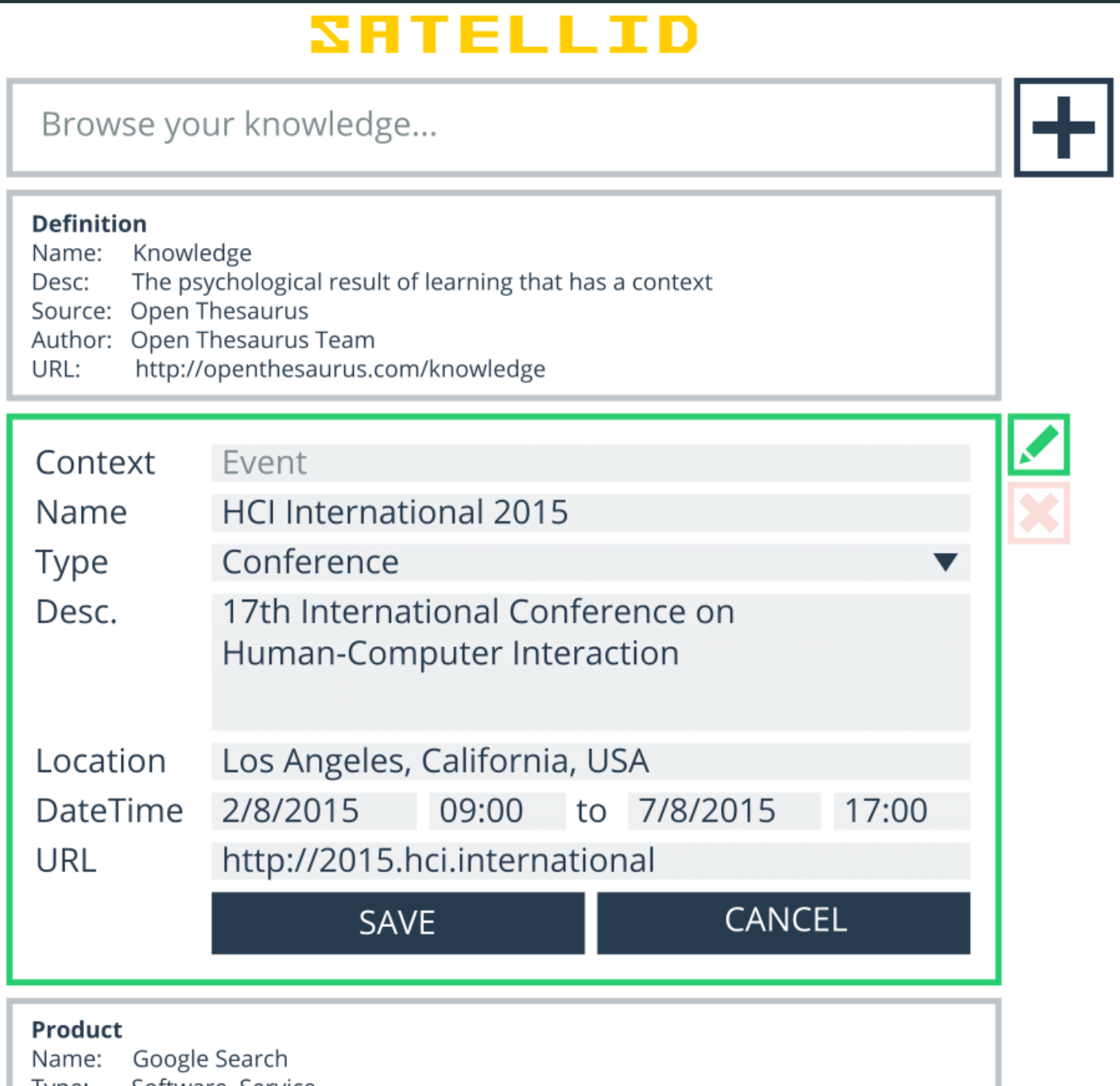
APP RESULT SCREENSHOTS: READ

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 FOR FUTURE WORK

- Can have custom form
- Can easily import and export, including backup
- BREAD a template
- Multimedia support
- Integration with other networks
- Encryption

Thank You