

SATELLID: PERSONAL KNOWLEDGE MANAGER

with Web Technologies

Muhammad Haidar Hanif

18 March 2015

Informatics Engineering - Gunadarma University

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 of:

- people profiles 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

All of these are context of knowledge

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

There is a need for a single system

How to manage those daily personal knowledge with single system?

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

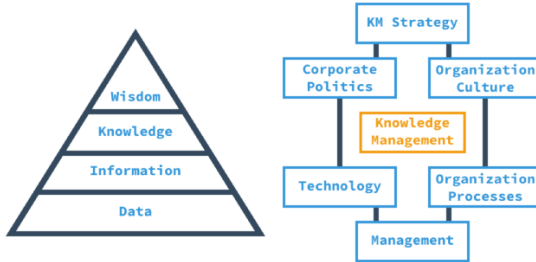
Define and develop a personal knowledge manager called
“Satellid knowledge manager”,
that built using Web technologies.

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?

- 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**.

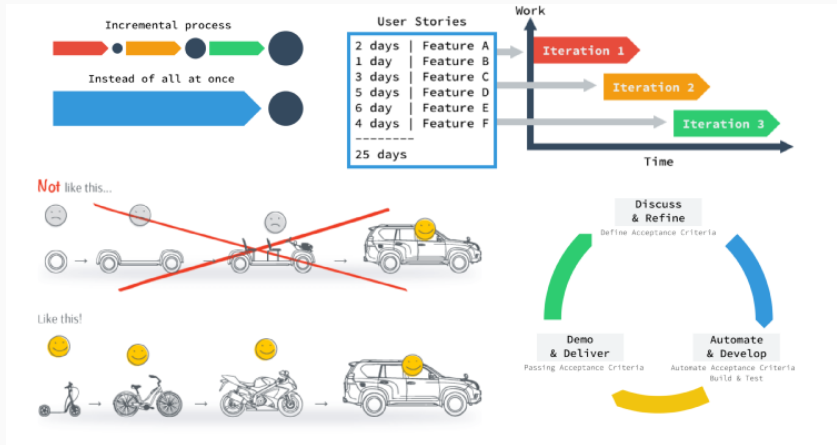
LITERATURE STUDY

KNOWLEDGE MANAGEMENT SYSTEM



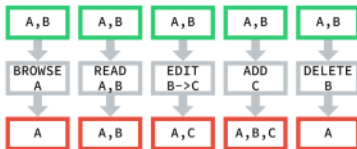
Data-Information-Knowledge-Wisdom (DIKW),
Knowledge Management System (KMS),
Personal Knowledge Manager

SOFTWARE DEVELOPMENT LIFE CYCLE (SDLC)



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

DESIGN PATTERN



Single Page
App Design



Common/Traditional
App Design



VS



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



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

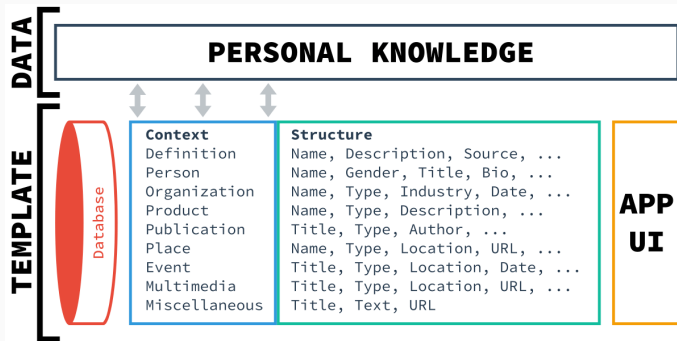
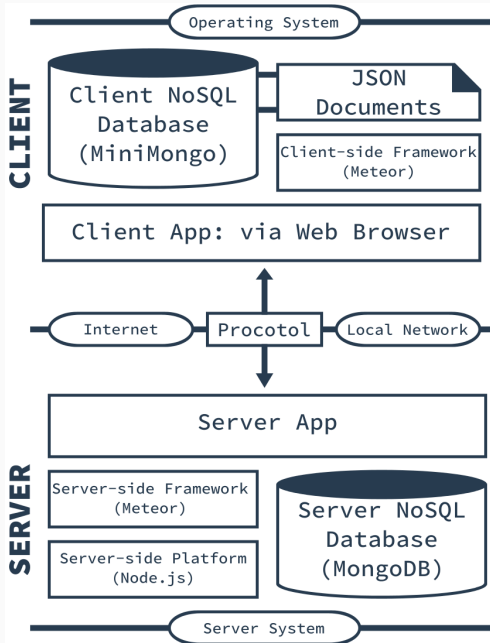


Figure 1: A data and template approach to classify the knowledge with its context and structure.

DESIGN: APPLICATION ARCHITECTURE



IMPLEMENTATION & TESTING

Snippets of Server Code

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

Snippets of Client Code

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


SATELLID

Browse your knowledge...



Definition

Name: Knowledge
Desc: The psychological result of learning that has a context
Source: Open Thesaurus
Author: Open Thesaurus Team
URL: <http://openthesaurus.com/knowledge>

Person

Name: Muhammad Haidar Hanif
Gender: Male
Title: Technology Generalist, JavaScript Developer
Website: <http://mhaidarhanif.org>

Product

Name: Google Search
Type: Software, Service
Desc: Internet search engine
Creator: Google Inc.
URL: <https://google.com>

Miscellaneous

Title: Random example
Text: Random sentence example
URL: <http://example.com>

Product

Name: Meteor
Type: Software

SATELLID

JavaScript

**Definition**Name: **JavaScript**

Desc: Lightweight, interpreted, object-oriented language with first-class functions, most known as the scripting language for Web pages

Source: Mozilla Developer Network (MDN)

URL: <https://developer.mozilla.org/en-US/docs/Web/JavaScript>**Person**

Name: Muhammad Haidar Hanif

Gender: Male

Title: Technology Generalist, **JavaScript** DeveloperWebsite: <http://mhaidarhanif.org>**Product**

Name: Meteor

Type: Software

Desc: Complete open source platform for building web and mobile apps in pure **JavaScript**

Creator: Meteor Development Group (MDG)

URL: <https://meteor.com>**Miscellaneous**

Title: Random example

Text: Random sentence example with **JavaScript** wordURL: <http://exampleofjavascript.com>**Event**

Title: JSConf

SATELLID

Browse your knowledge...



Context ▼

Name

Type ▼

Desc.

Location

DateTime to

URL

SAVE

CANCEL

Definition

Name: Knowledge
Desc: The psychological result of learning that has a context
Source: Open Thesaurus
Author: Open Thesaurus Team
URL: <http://openthesaurus.com/knowledge>

Product

Name: Google Search
Type: Software Service

SATELLID

Browse your knowledge...

**Definition**

Name: Knowledge

Desc: The psychological result of learning that has a context

Source: Open Thesaurus

Author: Open Thesaurus Team

URL: <http://openthesaurus.com/knowledge>

Context

Name

Type

Desc.

Location

DateTime to

URL



SAVE

CANCEL

Product

Name: Google Search

Type: Software Service

SATELLID

Browse your knowledge...



Definition

Name: Knowledge
Desc: The psychological result of learning that has a context
Source: Open Thesaurus
Author: Open Thesaurus Team
URL: <http://openthesaurus.com/knowledge>

Person

Name: Muhammad Haidar Hanif
Gender: Male
Title: Technology Generalist, JavaScript Developer
Website: <http://mhaidarhanif.org>

Product

Name: Google Search
Type: Software, Service
Desc: Internet search engine
Creator: Google Inc.
URL: <https://google.com>

Miscellaneous

Title: Random example
Text: Random sentence example
URL: <http://example.com>



Product

Name: Meteor
Type: Software

CLOSING

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

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

THANK YOU