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M.Sc. Computer Science and Engineering
Hypermedia Applications Project

Design Report

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Abstract

Plug-IT is a medium-sized Italian company operating in the ICT sector that needs a website to show the information related to its services. The goal of this document is to provide a functional and visual description of the website to be implemented. In particular, it aims at describing the main design choices through models, schemas and use case scenarios. Furthermore, it will also present the structure of the database from both a conceptual and logical viewpoint.

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Contents

Introduction

Requirements

Plug-IT is a medium-sized Italian company operating in the ICT sector that needs a website to make itself known and to show its offers. The system must show all the information relating to the *areas* (more than 3) in which it operates and the related *services* (more than 30) it offers.
In addition to the *general description* of the company and its contacts, all information about the *people* (more than 20) working at *Plug-IT* must be shown in detail.
In particular, some relationship must be evident on the website:

- People are related to areas (and vice versa) in different ways, e.g., because they are responsible for an area or because they work in an area

- People are related to services (and vice versa) in different ways, e.g., because they are project manager or because they are reference for assistance for a service

- Services are related to the areas they belong to (and vice versa)

Purpose

The goal of this document is to provide a functional and visual description of the website to be implemented. In particular, it aims at describing the main design choices through models, schemas and use case scenarios. Moreover, it will also present the structure of the database from both a conceptual and logical viewpoint.

1. Conceptual Design

The conceptual design of the website is detailed in this chapter. In particular, the choices relating to the contents, their mapping into pages and the navigation between them will be explained in detail in the following.

1.1. Content Design

This section describes the *C-IDM (Content Interaction Dialogue Model)*, which is a model that represents the website in terms of a dialogue between the human and the application. In particular, it explains what the dialogue is about and how the subjects of conversation are classified, mutually related and grouped. It also provides information on what can be said about each of these categories.

1.1.1. C-IDM Diagram

The core of the model consists of the three main kind of topic *Services*, *People* and *Areas* that are interrelated. The kind of topic *Areas* consists of all the fields in which the company operates. For each of them, there is a manager and many other employees. Every *Area* is also associated with one or more services. Each *Service* employs a project manager and has multiple references for assistance. Furthermore, the diagram highlights the association between the people and the areas in which they operate. Another kind of topic concerns the *Events* organized monthly by the company: they regard a specific field and generally involve one or more employees. Finally, the schema contains other two single topics: the first concerns a general description of *Plug-IT* while the other one deals with how to reach or contact the company.

C-IDM in-the-large diagram
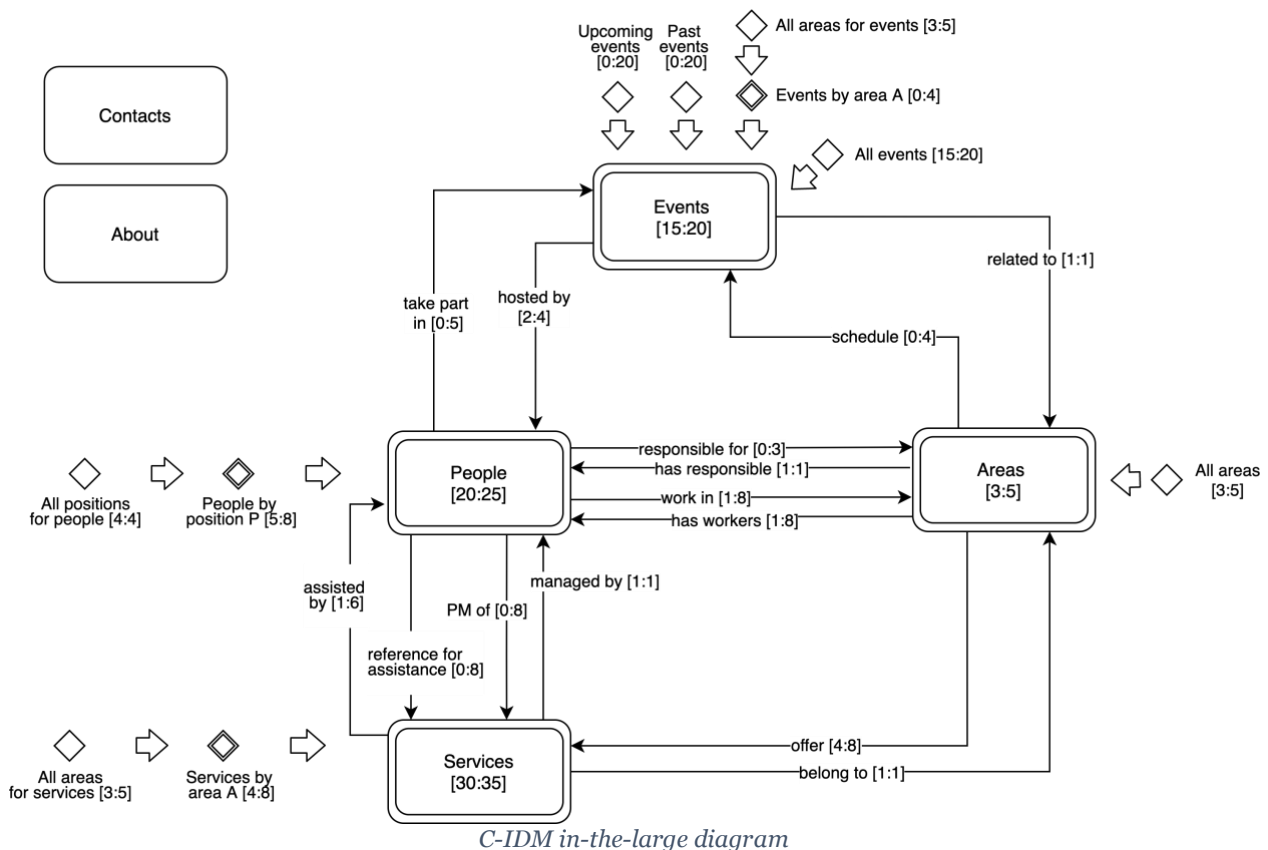
1.1.2. Content Tables

In the following tables are defined the contents of the conversation between the human and the application for each category of subject.

KIND OF TOPIC: *People*
Employee name: text
Top position name: text
Employee photo: image
Employee bio: text (max. 150 words)
List of managed services [service name, task role]
List of work areas [area name]
List of held events [event name, date, time, short description (max.25 words)]

KIND OF TOPIC: *Areas*
Area name: text
Area overview: text (max. 100 words)
Area responsible (employee name)
Area team: list of people (name)
List of area services [service name]
List of upcoming events [event name, date, time, short description (max. 25 words)]

KIND OF TOPIC: *Services*
Service name: text
Service area: text
Service description: text (max. 300 words)
Project manager (name)
Reference assistants: list of people [employee name, role in the project]
Contact form
Related contents (events, services)

KIND OF TOPIC: *Events*
Event title: text
Event area: text
Event description: text (max 200 words)
Event hosts: list of people (name)
Event date and time: date and time
Event location: map
Registration form
Related contents (services)

TOPIC: *About*
Company overview: text (max. 500 words)

Scope: list of areas (name, responsible name)

TOPIC: *Contacts*
Office information [address, phone, email]
Map view: map
Contact form

1.2. Navigation Design

This chapter describes the mapping between the content identified in the previous sections and the pages that will be implemented. Furthermore, it includes the *N-IDM (Navigation Interaction Dialogue Model)* diagram, which visually represents the choices made during the design of the high-level navigation topology.

1.2.1. Content tables - pages mapping

The following tables detail the mapping of the previously identified contents into pages.

▪ **KIND OF TOPIC:** *People*

PAGE: *People introductory page*
People introduction: text (max. 100 words)
List of 4 key executives [employee name, employee position, employee photo]
List of job positions fields [field name, short description (max. 50 words), responsible name, responsible position name, responsible photo]

PAGE: *Position page*
Position name: text
Introduction: text (max. 150 words)
Responsible information (employee name, position name, employee photo)
Grid of people [employee name, top position, employee photo]

PAGE: *Person page*
Employee name: text
Top position name: text
Employee photo: image
Employee bio: text (max. 150 words)
List of tasks [service name, service area, task role]
List of held events [event name, date, time, short description (max. 20 words)]

▪ **KIND OF TOPIC:** *Areas*

//Introductory page not needed. The different Area pages will be reached directly from the header.

PAGE: *Area page*

Area name: text
Area overview: text (max. 100 words)
<mark>Area responsible (employee name)</mark>
<mark>Area team: list of people (name)</mark>
List of services [service name]
List of upcoming events [event name, date, time, short description (max. 20 words)]

- **KIND OF TOPIC:** *Services*

PAGE: *Service page*
Service name: text
Service area: text
Service description: text (max. 300 words)
Project manager name
Reference assistants list [employee name, role in the project]
Contact form
Related contents (events, services)

- **KIND OF TOPIC:** *Events*

PAGE: Events Introductory *Page*
List of events [event name, area, date, time, short description (max. 20 words)]

PAGE: *Event Page*
Event title: text
Event area: text
Event description: text (max 200 words)
Event hosts: list of people (name)
Event date and time: date and time
Event location: location
Registration form
Related contents (services)

- **TOPIC:** *About*

PAGE: *About Page*
Company overview: text (max. 500 words)
Scope: list of areas (name, responsible name)

- **TOPIC: Contacts**

PAGE: *Contacts Page*
Office information: [address, phone, email]

| Map view: map |
| Contact form |

1.2.2. P-IDM Diagram

2. Visual Design

2.1. Home Page

2.2. Topics

2.3. Kind of Topic

2.4. Introductory Pages

3. Interaction Scenarios

4. Database Design

4.1.   Entity-Relationship Diagram

4.2.   Relational Tables