Hypermedia Applications (Web e Multimedia) 2011-2012

Project Specifications (period June July– 2012)
Workflow & Deliverables

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Project work at a glance

- Activities: design, prototyping, partial implementation, and documentation of a complex content intensive multichannel web application
- Output to deliver:
  - **Design Documentation** (in English or Italian)
  - **Evolutive Prototype + Technical documentation** (in English or Italian)
  - Optional: Requirements and Design Specs for the mobile version (0-3 points)
- Application Domain and Key Requirements:
  - **Partially assigned by teachers**
  - See next slides and .doc

+ Project Specifications for June – July 2012

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Stakeholders, Goals, and Content Requirements:

- The system you have to design is a web site for presenting large research projects in a domain of your choice (e.g., ICT, energy, environment, ...). Projects are funded by a large national or international body (either the Ministry of Research and Education of your country, or the European Commission), who is also the client who pay for the web site
- Each projects lasts from 2 to 5 years and is carried on by a team of partners (universities, research centers, companies, or other kinds of institutions - at least 5), among which there is one leading partner.
- The main purpose of the web site is to present all funded projects in the last 10 years, in order to **promote information and know-how sharing** among project participants as well as among any other entity who may be interested to propose projects in the future, or to **understand and exploit project results**. Web site users must be able to **get an idea** of all projects (max 200), possibly classified along multiple dimensions (e.g., by theme, by start or end year, by leading partner) and, for each project, explore the consortium (i.e., the partners and the involved persons for each of them), the goals, the workplan (and who is responsible for the various activities), the main results, the public events organized for promotion and dissemination purposes (e.g., conference, workshops, seminars), and the public documentation.

+ Workflow and deliverables: PART 1 (design)

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1. Understanding requirements
- search (and reflect on) examples of similar web sites
- Reflect on requirements and refine/improve/update goals
- Complete goal/stakeholder table and content requirements table

→ *D0.1: requirements specification*

2. Design
- Content specifications: define topics, kind of topics, (multiple) groups of topic, relevant relationships, and correspong dialogue acts, consistently with requirements specification
- Start collecting multimedia contents

→ *D1.1: C-IDM schema + L-IDM schema + content examples*

3. Design
- define conceptual pages consistently with L-IDM
- define high level scenarios (textual)

→ *D2.1: P-IDM schema (tutoring 2) + textual scenarios*

Workflow and deliverables PART 1 (design) (cont.)

4. Concrete Pages and Interaction Scenarios

- Define concrete presentation properties /layout) of pages
- Create 2-3 **interaction scenarios**
  - (static) representations of flows of interactions on (preliminary) pages, using real contents&links, in a (semi)final layout; highlight links activated at each interaction step

→ *D3.1: examples of commented concrete pages and 2-3* ***interaction scenarios***

5. Revise requirements for the mobile version (optional)

→ *D0.2: revised requirements for the mobile version*

6. REPEAT steps 2-3-4 for the mobile version (optional)

→ *D1.2: C-IDM schema + L-IDM schema + content examples*
→ *D2.2: P-IDM schema + commented page sketches filled with contents*
→ *D3.2: concrete pages & interaction scenarios (2-3)*

Workflow and deliverables PART 1 (design) (cont.)

7. Create & deliver final paper based design documentation for evaluation

→ *Final DESIGN* ***Report:***
on paper and pdf

Key Contents of PART 1 (design) ***REPORT***

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Abstract + **prototype URL**
Table of Contents
Chapter I: Design Documentation for STATIONARY (i.e., NON MOBILE) VERSION

- requirements (Table 1 and Table 2)
- C+L+P IDM schemas (include *only* strictly needed comments)
- **Commented *concrete* pages** (in the final lay-out, filled with real content) for **all main pages**
  - comments about categories of links, navigation info, navigation patterns used, act(s) each page derives from,...
- 3-5 **interaction scenarios** : short textual description + sequences of screenshots for the concrete pages involved
  - **important**: define scenarios that allow teachers who evaluate your documentation to traverse **all main significant pages, of different nature** *(for topics, kind of topics, transition and introductory acts)*

Chapter II: Design Documentation for MOBILE VERSION **(optional)**

- requirements for mobile version
- C+L+P IDM (with strictly needed comments)
- **commented concrete pages for all main pages**
- 2 or 3 **interaction scenarios**

Part 1 (design): evaluation criteria

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- **Completeness** of final design **documentation**
  - All parts of the required documentation MUST be included
- **Consistency**
  - of IDM design specs with goals and requirements
  - among the different IDM design schemas
    - L-IDM must be consistent with C-IDM
    - P-IDM must be consistent with L-IDM
  - of **concrete pages** with IDM design specs
    - All links, landmarks, orientation info, proper contents must be represented in the pages
- Quality of **contents**
- Quality of **interaction scenarios** (how realistic the scenarios are, at which degree they cover the navigation space)
- **Usability of the documentation**
  - Well structured
  - Clear and compact descriptions and diagrams
  - Not verbose
  - Easy to read and understand
  - Page numbers
  - Good table of contents
  - ...

Part 2: evolutive **prototype**

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- Objective: implement a **subset** of the design specifications to build a Web application using the Google App Engine framework
- Input: design specs built for part 1 of the project
- Output:
  - The actual **implementation** of a **design fragment,** published on the Web
  - Online Technical documentation
  - Online Source Code

Part 2: specification to implement

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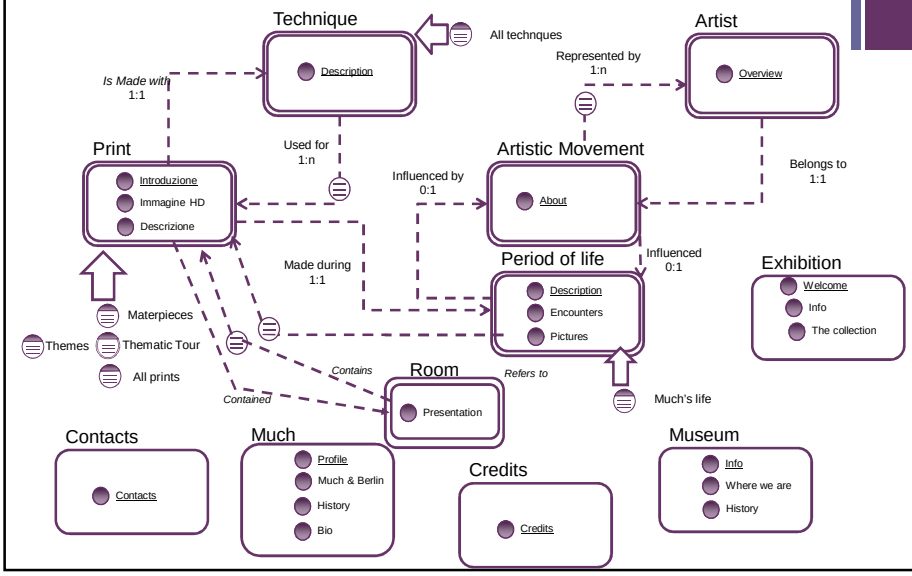
- Subset of IDM specifications
- Minimum IDM required: at least
  - **Home page**
  - **Pages** (with links) **for 1 single topic** with more than one content dialogue act
  - **Pages** (with links) **for 2 different multiple topics**:
    - They must be connected with a **one to many** relationship (the 1:1 in the other direction)
    - (Note: For the transition act, you can use a separate page or embed it in the source page; be coherent with P-IDM specs)
- **Pages** (with links) **for 1 group of topic** (involving at least one of the chosen multiple topics)
- **Pages** (with links) **for 1 multiple group of topics** (involving at least one of the chosen multiple topics)

In addition, provide a minimal editorial interface (2 pages) to allow the teacher add instances to the **multiple topics and create links among them** (for evaluation purposes)

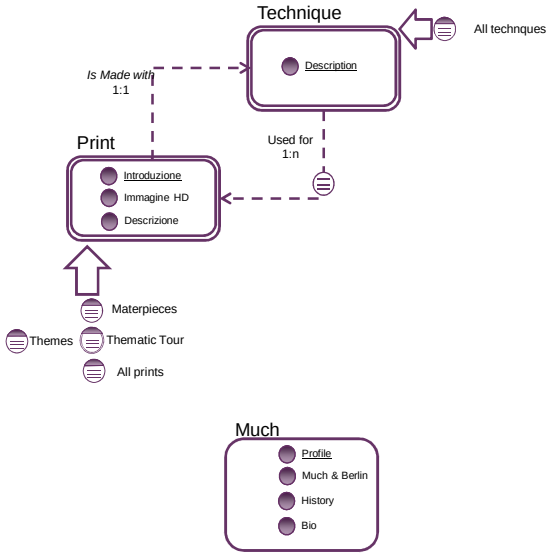
Part 2 - Example of design fragment

- See in the next slides an example of subset of design specifications to be implemented in the case of Munch exhibition application

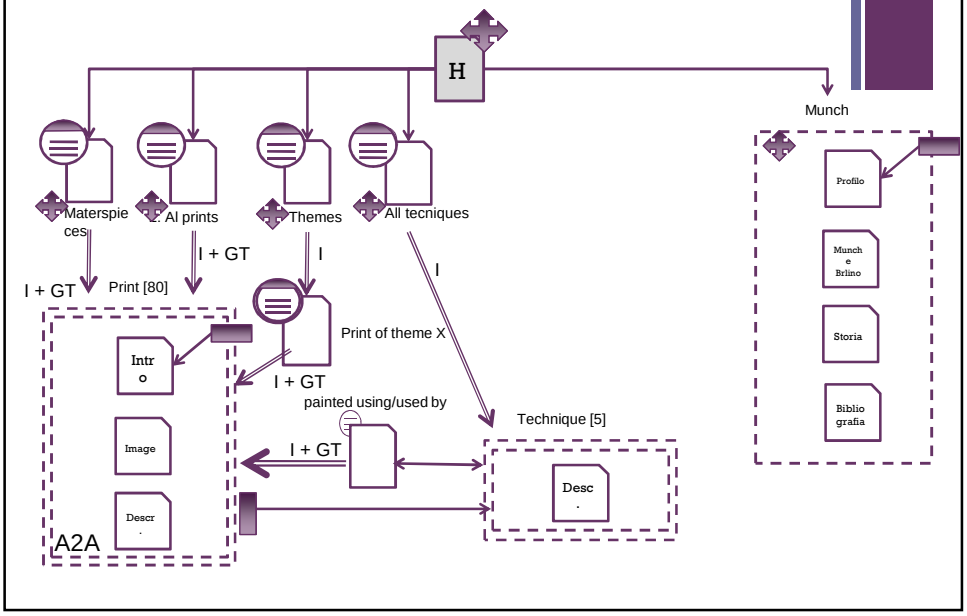
Part 2 – Munch example: full L-IDM specification



Part 2: selected fragment of L-IDM



Part 2: P-IDM: subset of pages to implement



Part 2: design specifications to implement (pages)

- Example:
  - for the topic **Munch**
    - 4 pages for the content dialogue acts
  - for the multiple topic **Print**
    - 3 pages for the content dialogue acts
  - for the multiple topic **Technique**
    - 1 page for the content dialogue act
  - 1 page for the transition dialogue act (**Used for, 1:n**)
  - 5 pages for the introductory dialogue acts
- TOT: 13 pages

PLUS:**a minimal editorial interface (2 pages) to allow the teacher** add instances to the **multiple topics and create links among them** (for evaluation purposes)

Part 2: enabling implementation technologies

- Web Application must be realized using the following technologies:
  - Java EE technologies
  - Google App Engine technologies for presentation and persistence layers.
    - We strongly suggest to use the MVC Slim3 framework (explained during lessons)
  - HTML (we suggest xhtml)
  - CSS
  - (optional) Javascript and/or Ajax technologies

Part 2: technical evaluation criteria

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- Consistency with design specifications of the chosen subset, as reported in the design document
- Java implementation quality
  - Use of design pattern
  - Code quality
  - Presence of comments in the code
- Tools and framework
  - Correct use of the framework (Slim3 for example)
  - Correct use of the Google App Engine framework
- Web technologies quality
  - HTML quality; CSS quality
- Web Application functionalities
  - Navigation in the application
  - Editorial pages
- Bonus
  - Use of Ajax solution to implement functionalities
  - Use of client side java script GUI components to implement functionalities
  - Implementation of extra pages or interactive features

Part 2: application URL naming convention

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- [first_name_first_letter][second_name_first_letter] for each member of the group separated by an "-"
- And -aip2012 in the end.
- Example:
  - Group members:
    - **Mario Rossi**
    - **Luigi Bianchi**
    - **John Smith**
  - Application URL:
    - **http://mr-lb-js-aip2012.appspot.com**

Delivery of DIGITAL DOCUMENTATION

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- All digital documentation must be delivered on Beep in section

DELIVERABLES

in the folder of the appello in which you want your project to be evaluated

The content of this section is protected and can be visible by teachers and the student who posts the material

- ALL DOCUMENTATION MUST BE CONTAINED IN A **SINGLE** ZIP ARCHIVE; the zip must contain:
  - FILE 1: PDF OF DESIGN DOCUMENTATION
  - FILE 2: instructions for accessing prototype, tech- documentation, and source code
- PLEASE FOLLOW THE INSTRUCTIONS OF THE NEXT SLIDE CAREFULLY

ZIP archive specifications

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- Zip file name: **mr-lb-js-aip2012.zip**

(NB: mr lb js are the initials of group members)

- **Beep comment to zip file**: group name + surnames of group members
- FILE1: PDF OF DESIGN DOCUMENTATION named **mr-lb-js-aip2012-design.pdf**
- FILE 2: PDF CONTAINING THE FOLLOWING INFO:
  - Group members: Mario Rossi, Luigi Bianchi, John Smith
  - PROTOTYPE URL: Example: http://mr-lb-js-aip2012.appspot.com
  - PROTYPE EDITORIAL PAGES URL: Example: http://mr-lb-js-aip2012.appspot.com/admin
  - LINK TO TECHNICAL DOCUMENTATION: Example: http://mr-lb-js-aip2012.appspot.com/techdoc.pdf
  - **Source ZIP**: Example: http://mr-lb-js-aip2012.appspot.com/YOU-CHOOSE-A-NAME.zip

(NOTICE : you-choose-a-name means that you define any name that can help protect you source code)

Part 2: final output to deliver

- The implemented fragment of the designed Web Application
- Zipped eclipse project. Upload it on the same Web App.
  - Tip: remove goggle app engine jars to make file lighter.
- Technical documentation: PDF file on the same Web App
  - P-IDM schema that you implemented (subset of the one from the Part 1)
  - Any needed comment on implementation
  - IMPORTANT: the implemented pages must have the same layout as in the design specs of part 1. Non implemented links must be visually present and it must be clear that they are not active

Tutoring

Unfortunately, teachers will **NOT** be able to offer tutoring to students working on their project outside the course period

Packaging the design output

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- The **paper** material **must** be packaged in a **single closed** paper folder or a robust envelope
- On the package there must be a **label** like the one in the next slide
  - Important: For each member, point out if the exam was not passed / passed [the date and the mark] or if she/he is delivering the project for the appello.
  - Notes are optional
- The digital material must be posted on Beep

Pakaging: the paper envelop and **cover page of all documents MUST** have this

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AIP 2011 Project	
Teacher name	
Delivery date	
Project title + **prototype URL**	
Group member count	
Group leader: First name, Second name, telephone number[written exam not passed] | [written exam passed at date...with mark…]	
Member 2: First name, Second name, [written exam not passed] | [written exam passed at date...with mark…]	
Member 3: First name, Second name, [written exam not passed] | [written exam passed at date...with mark…]	
Notes:	
Evaluation (blank space for the teacher)	

Project Material not following these specs might get lost and might not be evaluated

Delivery

- Where:
  - the paper package must be delivered at Segreteria Didattica at Dipartimento di Elettronica e Informazione (9 am to 12 am)
  - The digital material must be delivered on Beep
- When: before 12 am of the day of any Appello (consistently with the other exam rules)

END