Hypermedia Applications (Web e Multimedia) 2010-2011

Project Specifications (period June-July 2011)

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** (reported in English or Italian)
  - **Evolutive Prototype**

- Application Domain and Key Requirements:
  - **assigned by the teacher**
  - See next slides

Project Specification for June/July 2011

Application domain:

an online marketplace for a consortium of small-medium produces of organic food, selling (and doing home delivery) fresh organic products (vegetables, fruit, meat, dairy products, bread) and also additional products such as pasta, jam and marmalade, coffee and tea, drinks, sugar, honey, chocolate, ….)

Stakeholders, Goals, and Content Requirements:

see .doc specifications

Workflow and deliverables: PART 1 (design)

1. Understanding requirements
- search (and reflect on) examples of similar web sites
- Reflect on requirements and refine/improve/update goals if needed

→ *D0.1: (not mandatory) revised requirements document*

2. Design
- Refine 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 (tutoring 1)*

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 (tutoring 3)*

5. Revise requirements for the mobile version

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

6. Repeat steps 2-3-4 for the mobile version

→ *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 **paper** based DESIGN Report*

NON MOBILE VERSION

- (optionally revised) requirements for non mobile version
- 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 (at least, those involved in the scenarios-see next point)
  - comments as in the design writtem exam: categories of links, navigation patterns used, act(s) each page derives from,…
- 3-5 interaction scenarios : short textual description + sequences of screenshots
  - **important**: define scenarios that allow teacher to traverse all main significant pages

MOBILE VERSION

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

Part 1: evaluation criteria

- **Completeness** of final design documentation
  - All parts of the required documentation are 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 **scenarios**
- **Usability of the documentation**
  - Clear and compact descriptions and diagrams,
  - Not be verbose

Part 2: evolutive prototype

- 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
  - Technical documentation
  - On CD-ROM: Source code + Technical Documentation + Design Documentation

Part 2: specification to implement

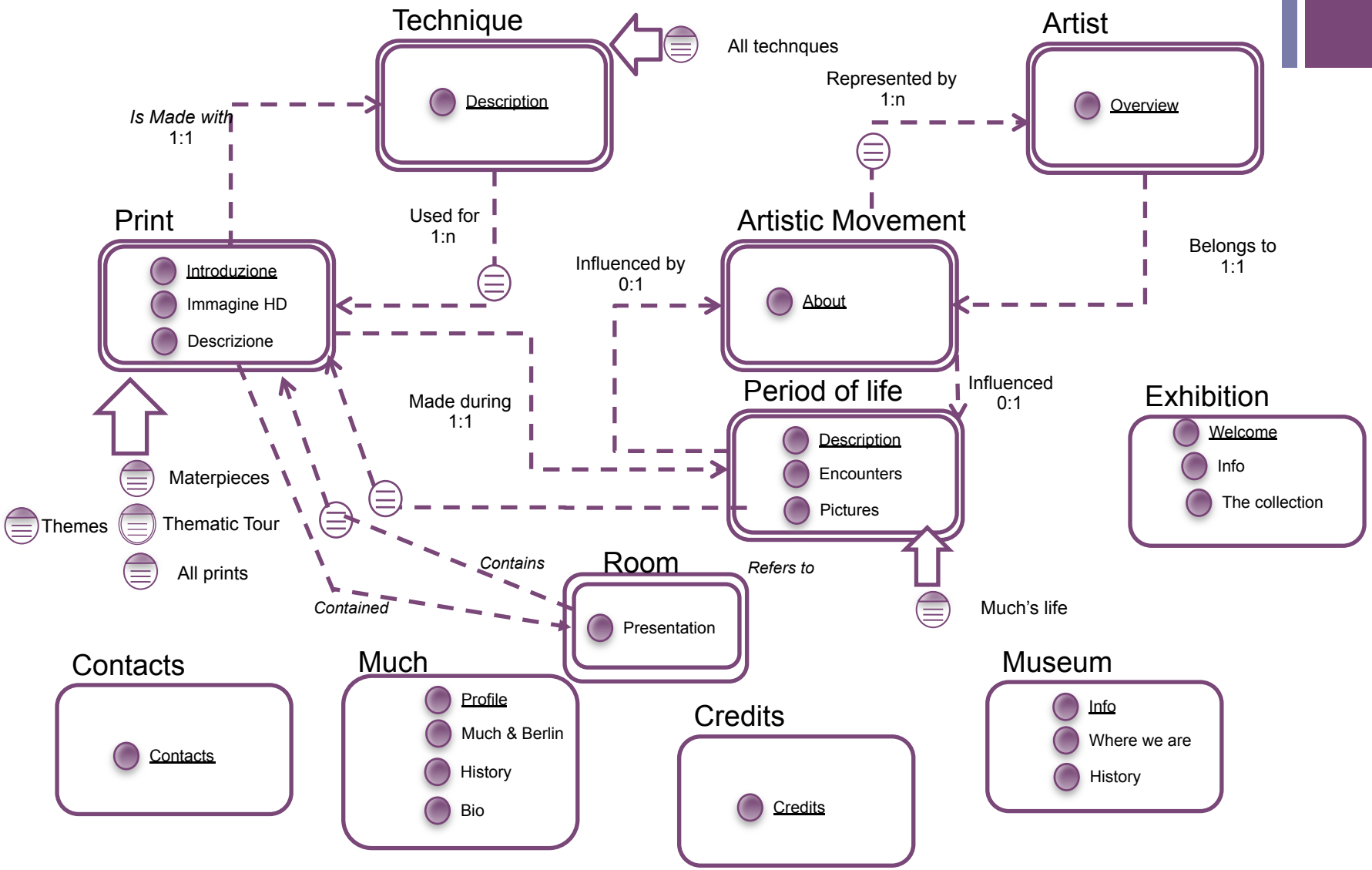
- Subset of IDM specifications
- Minimum IDM required: at least
  - **Home page**
  - **Pages** (with links) **for 1 single topic** with more than one content dialogue act
  - **Pages** (with links) **for 2 different multiple topics**:
    - They must be connected with a **one to many** relationship (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)

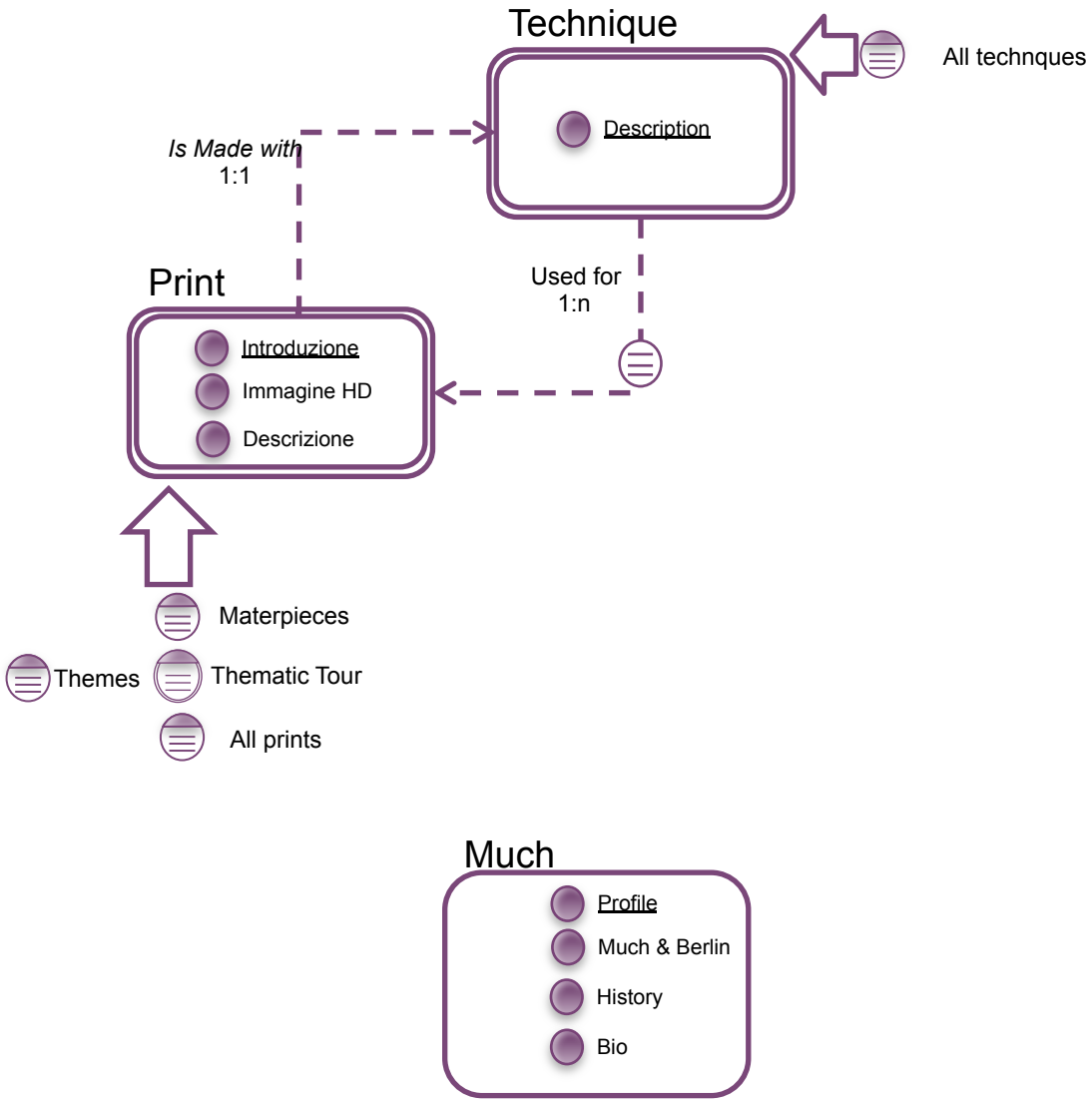
Part 2 - Example of design fragment

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

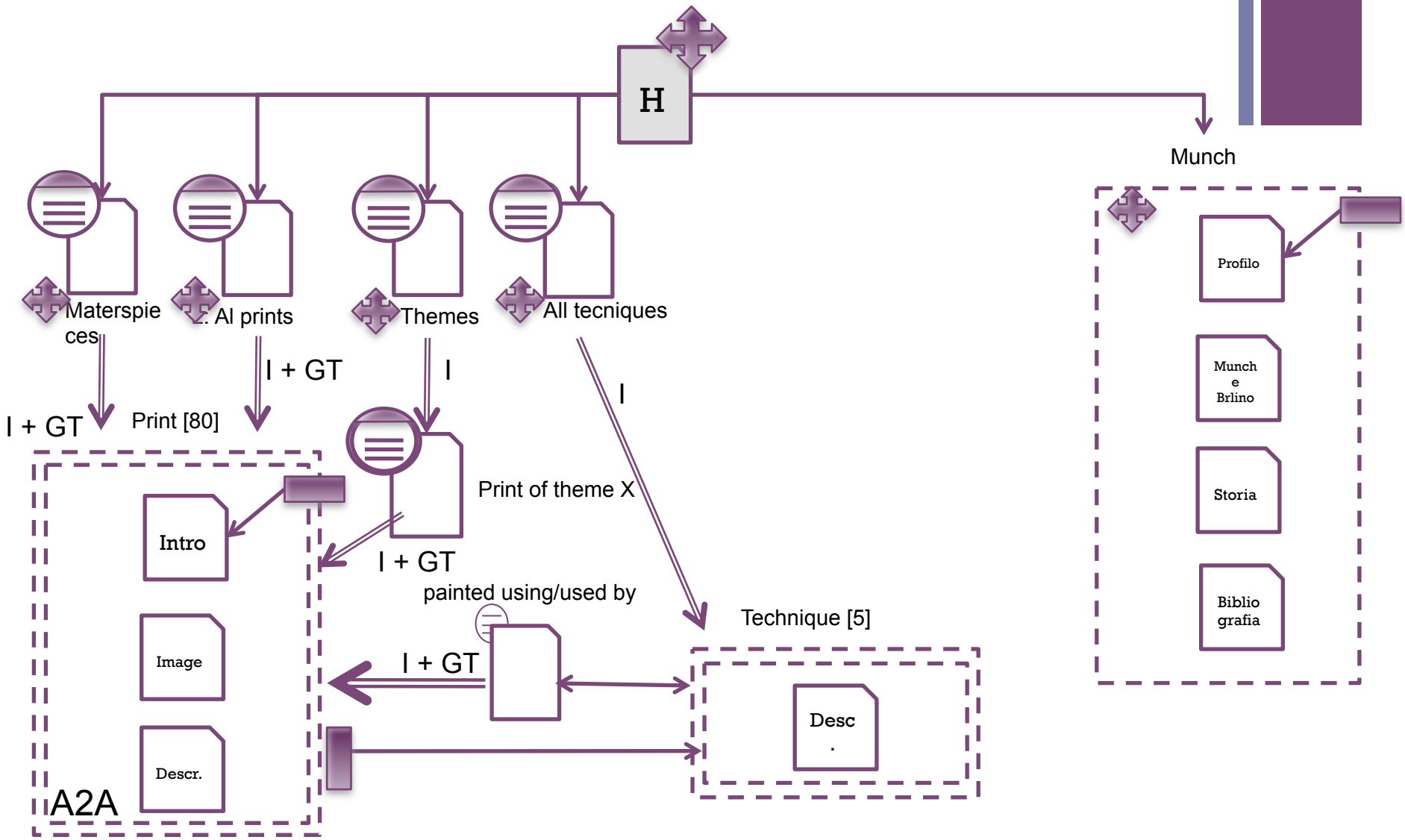
Part 2 – Munch example: full L-IDM specification



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

- 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

- [first_name_first_letter][second_name_first_letter] for each member of the group separated by an "-"
- And -aip2011 in the end.
- Example:
  - Group members:
    - **Mario Rossi**
    - **Luigi Bianchi**
    - **John Smith**
  - Application URL:
    - **http://mr-lb-js-aip2011.appspot.com**

Part 2: final output to deliver

- The implemented fragment of the designed web application: URL following the given naming convention
- URLs of editorial pages (or you can link them in the home page)
- Source code on the CD-ROM (for example the entire Eclipse project)
- Technical documentation: paper based + PDF file on the CD-ROM
  - P-IDM schema that you implemented (subset of the one from the Part 1)
  - Commented concrete pages for all implemented pages (subset of the material delivered in part 1- design documentation)
  - Any needed comment on implementation
  - IMPORTANT: the implemented pages must have the same layout as in the design specs of par 1. Non implemented links must be visually present and it must be clear that they are not active

Tutoring

- only to groups **registered** in the WB by May 18

- How to register: Post a message in Conference PROJECTS:

  Subject: Project Group Name/Surname of the Group-Leader/ number of group members

  (Example: Pincopallino/Garzotto/3)

  Body:

  Project Group Name

  Surname Name of the Group-Leader; email

  For each other group member: Surname Name; email

- At each tutoring session: ONLY groups deliverying the required material will be admitted

What must be delivered at the Tutoring

- Tutoring time is limited and tutoring must be organized from the student side too – come to the tutoring prepared!
- Tutoring on design: see previous slides for the specifiction of what you have to bring at each tutoring
- Tutoring on implementation: bring a clear specification of questions or issues on implemenation to be discussed with tutors

Packaging the project output

- The material (paper + CD) must be packaged in a **closed** paper folder or a robust envelope
- On the package must be present 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
- On CD-ROM: write **exam name, teacher name, group name , delivery date**
- Project Material not following the above specs might get lost and not evaluated

Pakaging: label

AIP 2011 Project	
Teacher name	
Delivery date	
Project title	
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)	

Delivery

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

END