Interfaces de Usuario

Grado en Ingeniería Informática

Course 2013 / 2014

Case study

(Assignment)

DESIGN AND DEVELOPMENT OF WEB USER INTERFACES

Design, development and documentation of a website 2.0 for buying tickets to the cinema

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1. Introduction

The case study described in this document is about designing and developing the user interface of a website 2.0. Namely, the website will enable the end-user to buy tickets to the cinema. As the focus is on the user interface, functionalities will be simulated in the website. You are allowed to use frameworks for designing websites.

The student is expected to put in practice the lessons learned during the course, including both theory and lab sessions. Usability concepts, design recommendations, web design patterns and technologies for developing web user interfaces (HTML, CSS, JavaScript and jQuery) will form part of the case study, which is described in Section 2.

Estimated effort

The estimated number of hours each student will need to carry out satisfactorily the case study is 37, which will be distributed in four working weeks and in four lab sessions. The lecturers will solve general doubts or concerns about the exercise in these sessions.

Submission

This exercise will be submitted on the **14th week of the course** (see the timetable of lab sessions in Aula Global for submission deadlines).

Assessment

As stated in the PDF file with the rules of the course (see Aula Global, Presentation), the case study corresponds to **40% of the final mark of the course**. Students **will not be eligible for continuous evaluation** if they:

- Copy the exercises from another group
- Allow other groups to copy their exercises
- Copy the exercise from webpages

Organisation of the document

The case study is described in Section 2. An outline of the scenario which will guide the design and development of the website is presented in Section 3. The submission procedures are detailed in Section 4.

2. Case study

In this case study, the students are expected to put in practice the lessons learned during the course, combining theoretical aspects with programming skills and heuristic evaluation practices. To this end, the students will analyse the scenario described in Section 3 in order to design and develop the user interface of a website that gives support to it.

In addition to submitting the source code of the design of the web user interface, the students will hand in a report, discussing:

- The main objective of the web user interface
- The profile of the target of the web user interface
- Good and bad design practices of similar web user interfaces
- Low-level prototypes (paper and pencil) of the web user interface
- Web design patterns taken into account in the design of the web user interface
- Documentation of the source code (e.g. files, structure or relationship between / amongst them, style guide - CSS)

We encourage the students to carry out the next steps so as to carry out successfully this case study:

- Read carefully the scenario to identify the main objective of the web user interface (i.e. what the web user interface should allow its users to do) and its potential target
- After having analysed the scenario in detail, you should be able to draw a design plan – establishing priorities and making design decisions (e.g. we do not tell you how you must design the site, it is up to you), all of which being creative and from an engineering approach (time constraints, teamwork).
- Search for existing and similar web user interfaces in order to identify good and bad design practices to get inspiration and improve what does not work in other related websites.
- Design low-level prototypes to understand how the web user interface should provide the functions to its end-users. Apply web design patterns to do so. Do not forget to take notes of which patterns have you applied and how you have done so, to write it in the report.
- Develop the web user interface by using the technologies for developing web user interfaces used in EP1, EP2 and EP3. It goes without saying that you can copy-and-paste the code of the exercises you have either submitted or developed and not submitted.

3. Scenario

Mario is mad about movies. He loves spending most of his free time going to the cinema and watching the most recent, and more widely known, movies. From time to time, he turns up in alternative cinemas to watch classic movies or films directed by his favourite directors.

Mario is crazy busy most of the day, so he buys tickets online. He also goes online to know at which cinema he has to go to watch a particular movie. He usually reads comments and reviews posted online, as doing so helps him decide which movie to watch. In addition to reading comments, he considers that sharing their opinions with others is worthwhile, and therefore he writes comments online too. He always writes comments when he has watched a movie, never before.

Mario has come across a website that meets his needs. The website allows him to look for what movies are on show at what cinemas in his local area and vice versa. The website also provides him with an opportunity to look for movies according to their genre and their directors. The website has a map with the location of the cinemas too.

When Mario is looking for a film on the website, this provides him with the following information about the movie: cinemas, director, cast, plot, photos of the most important scenes and a trailer. The website offers information about the cinemas too, such as where it is and how to get there. Also, the website has a section in which Mario can read and post comments about the cinemas and movies.

The process of buying a ticket is as follows. He selects the movie, the cinema, the session (selecting from the different sessions – morning, afternoon, evening) and where he wants to sit (first row first column, for instance). After having selected these options, he fills out a form with his personal details and buying/delivery of tickets' options. When he has bought his ticket, he is given the option of signing up, so that he can skip the personal details part of the buying process next time he buys a ticket.

4. Norms

The realisation of the case study is guided by the following norms. If you do not comply with them, your mark **won't be more than 3**.

- The case study will be carried out in groups of four students. The members of each group will belong to the same lab group (in this case, group 89).
- The web user interface will be developed by using the technologies used in EP01, EP02 and EP03.
- The written report of the case study will be a single .doc/.docx or.pdf file.
- The written report must include the low-level prototypes designed (or any other artefacts you have used in the design of web user interface)
- The students will present their case study in an oral presentation (length to be determined, depending on the number of groups). All groups must participate in the public presentation. If a member of the group does not do it, (s)he will loss 5% of the total mark of the case study. The presentation will be followed by a 5-minute Q&A (Questions and Answers) session led by the lecturer.

IMPORTANT: The lecturers will not solve problems via e-mail**.**

Submission

The case study will be submitted in the session indicated in the introduction of this document.

The submission norms are:

All the files will be submitted through Aula Global on the date and time scheduled.

All the files will be either zip or rar files, with the following filename:

CP_grXX.zip

XX is the ID of your group. For example, group 5 will submit the case study as:

CP_gr05.zip

The zip or rar files will have:

- a "report" folder, with your written report
- a "src" folder, with the source code of the case study[1], divided into
  - "script" folder, for jQuery and JavaScript files
  - "images" folder, for images files
  - "style" folder, for CSS files

IMPORTANT: Exercises submitted in e-mails to the lecturers will not be considered.

[1] The html file(s) will be included in this folder

5. Evaluation criteria

The evaluation criteria, which were discussed in the presentation of the course, are:

- Technical development/implementation (40%). We will evaluate the validity of the code in terms of compliance with W3C standards, the use of comments in the source code, errors handling, and number and type of functions developed.
- Interface design (50%). We will evaluate how web user interface design patterns have been applied and used in the web user interface. To do so, the lecturer will, amongst other activities, carry out a heuristic evaluation of the web user interface by following Nielsen's heuristics
- Presentation (10%). We will evaluate the clarity, coverage of topics and precision of the presentation, along with the ability to make it within the time limits. We will also evaluate the participation of the students in the Q&A session.