

Description of the project's requirements

International Open Bidding Project / Séminaire Appel d'Offres International 2022

A digital marketplace for redistributing second-hand computers and electronic equipment

1. Introduction

This year you will be working on an international team project. This means that every team has to complete a project, and that every team is international. This is not an “international competition” (France vs. Bulgaria ...), this is a competition between international teams.

Every team is composed of a balanced number of students with different skills (programming, graphic design, digital communication, audiovisual production) so that the workload may be fairly shared. And every team is composed of students from at least 3 different countries.

It is up to you, students, to find the best way to work together and to communicate!

2. Work process

On the first day of the project, March 25th, 2022 at 08:00 UTC (09:00 in Paris and Casablanca, 10:00 in Sofia and Beyrouth, 15:00 in Hanoi), the object of the work you have to do is disclosed to you. This is the purpose of the present document (Section 4).

At the same time, the composition of the teams will be given.

The object is given to you as if it were an open bidding process. Every team has to react as if it were a small company trying to make the best bid and win the competition.

At 10:00 UTC, every team should start self-organizing and quickly solve the following questions:

1. Define an internal distribution of responsibilities (it is expected that every team appoints at least one coordinator/spokesperson, one person responsible for web server access, and one person in charge of audiovisual productions; apart from that, your internal structure should be just as hierarchical as you think it necessary)
2. Find a name for the team
3. Define an internal organisation in subgroups or “task forces” of persons with specific skills
4. Define the work packages, tasks and subtasks, and assign them to the relevant subteams and team members.

The answer to those questions will be collected before the end of the first day.

The team then starts to work in a classic project management process: design a book of recommendations, and implement it.

Halfway through the cycle (on Tuesday, March 29th), each team is expected to give a short presentation of its specifications to the teaching team, and to say where it stands in the process. It also has to give a written document: the book of recommendations and technical choices.

At the end of the cycle (after 8 days, on Friday, April 1st), each team will have to present the results of its work in front of an international jury.

There are no particular constraints on the language(s) you have to use for internal communication, the digital media you use for communicating, or the digital platform you use for exchanging files and project data. There are plenty of choices available, and it is up to you to find which one best suits your needs. A discord platform will be available to communicate with all teams and with the organizers, and you are free to use it for internal team communication if you so wish : <https://discord.gg/kZxG379dyS>



3. Assessment

The assessment will be based on what you present on the last day (April 1st) in front of the jury.

The language of the presentation on the last day should be English.

Your team work will be marked from 0 to 20. A mark below 10 means you failed. All other marks allow you to get the 3 ECTS credits (above 10 = pass, above 12 = fair, above 14 = good, above 16 = excellent).

The mark is given based on an assessment of your work on different criteria (how well the project goals were met, quality of the graphic design, quality of the presentation...)

An important evaluation criterion is how well people in the team have worked together. During the presentation, it should be made clear to the jury who has done what in the project. Some explanations should also be given about how the problem of collaborating online across different countries has been solved.

Normally the collective note of the team applies to every student member of the team, but in some cases, when the jury detects that some students have worked seriously and some have not, individual notes may be given.

Every team will have up to 25 minutes to present itself and to present its work. The presentation will then be followed by 15 minutes of questions from the jury.

A classic presentation plan includes:

- a presentation of the team;
- an explanation on how the workload was distributed;
- a description of the choices made in graphic design;
- an explanation of the implementation choices;
- a description of the communication strategy to make the website known (online and offline);
- a demonstration of the prototype (incl. at least one video clip created for the project);
- a conclusion about the learnings from that experience.

On the day of the final presentation, every team should give the following written documents to the jury:

- a graphic charter;
- a written description of the communication strategy;
- sample printed communication matter (e.g. flyers).

4. Project Requirements

4.1. Context and problems

In the richest countries, which are the first market targets of the digital industry, electronic devices (computers, hardware components, mobile phones, mobile devices...) are often renewed after a short cycle of some years, when they are still perfectly functional.

Some categories of users would greatly benefit from this hardware, even if it is not of the last generation. After reset, a computer, for instance, can start a useful second life in a non-profit organisation, in an educational institution, or in a small business in a developing region. And in many cases, the first owners of electronic devices would be just as happy to donate their material as to dump it away.

Ways to donate used electronic devices exist, but it is often hard to know how to find and how to choose the best one. Donors have requirements on their side: they want to be sure that no sensible data is shipped along with the hardware, that the equipment they give away is not being put to uses that they disapprove of, which would be harmful for their reputation, and that no intermediary is making illegitimate profit out of their donation. Receivers also have requirements: they do not want to be used as dumping places for unusable equipment, and so they need to trust the donors and the shippers upstream.

4.2. Goals

This project aims at building a multilingual marketplace facilitating the donation of second-hand electronic equipment:

- donors should be able to offer second-hand hardware for donation, describe the equipment, and describe the conditions of the donation;

- people seeking to acquire second-hand equipment should be able to see the offers and select whichever suits their needs;
- 3rd-party shippers should be able to offer their shipping services and describe the terms and fees (unlike donors, shippers may expect to make a small profit out of their services);
- all categories of users should be able to evaluate the experiences they have had with other users.

On the day of the presentation, the project should include a prototype demonstrating the feasibility of such a web-based portal, as well as an example of use, with a (possibly pre-recorded) video exchange.

A communication strategy should also be planned to allow for the portal to become known by the target audience.

4.3. Site features

The website should offer a public section and a private section.

It must be fully available in (at least) three languages.

You will find here below a list of features that could be expected from the website.

4.3.1. Public section

The public section of the website (accessible from any internet user) should contain:

- a home page, containing a presentation of the platform, and a summary of its functionalities (with links);
- a short video clip (3 min. max) advertising possible uses of the platform, featuring users reporting their experience (in addition to live action shootings, videos may include some motion design and/or video screen recordings);
- visible from everywhere on the site, at the bottom of the scrollable page, a list of site information links, pointing to pages such as “About us”, “Questions”...

Important, also at the bottom of the scrollable page, and compulsory:

- a link “Legal information” (French: « Mentions légales »), pointing to a page where the compulsory legal information is given,
- a link “User agreement and terms of service” (French: « Conditions Générales d’Utilisation »), pointing to a page giving the users information about the terms they agree to when using the site;
before subscribing to the platform, the users should somehow tick a box whereby they accept the terms of service. The terms of service should make clear what is the liability of the platform itself (not directly providing equipment or shipping services, but putting different users in contact), and what is not (any clauses concerning warranty, insurance, shipment delays...);
- according to the General Data Protection Regulation, a link “Privacy policy” (French: « Politique de confidentialité »), pointing to a page where the compulsory legal information about data is given;
those texts should conform the national and international regulations concerning databases;
- visible from everywhere on the site, at a fixed position on the viewport (classically in the top right corner), an invitation to sign up (subscribe) or to sign in (connect);
- clicking on “sign up”/“subscribe” should get the user to an account creation screen;
- clicking on “sign in”/“connect” should get the user to an authentication screen where users who already have an account may give their credentials and get access to the private section.

The video clip(s) may be hosted on our server, or on a 3rd-party video hosting platform (the use of independent, decentralized solutions like PeerTube is encouraged, but the use of well-known proprietary hosting platforms like Vimeo, Dailymotion, or YouTube is not forbidden). It should be subtitled in all of the languages of your site. Depending on the current language choice, the video should automatically play with the corresponding subtitles (the language of the subtitles can be sent among the parameters of the GET request to the public video hosting platform that hosts the embedded video).

The ideal video to be included in the public section of the site should display the added-value of the marketplace, by showing testimonials of satisfied users of different categories.

It is very important to obtain a written consent from the people featured in the sample video for their image to be used on a publicly accessible web site (it is, of course, not necessary to disclose their real identity, as they ought to represent personas more than actual people).

The pages of the public section of the website should be available in at least three languages: French, English, and at least one non-European language. The teams should take advantage of their internal linguistic skills.

4.3.2. Private section (accessible with credentials)

It should not be forgotten that this network is private and should comply with the “Privacy by design” European Regulation 2016/679 on data protection. This is an important platform requirement.

The platform should provide a way for users to find other categories of users that match their needs (e.g. receivers should be able to find donors and shippers) — but only among people who have subscribed to the platform and agreed to the legal conditions.

“Users” may represent legal entities instead of natural persons, but a natural person must always be identified as legally responsible for any account, and his or her verified real name and contact details must be available to the website administrators.

The private section should contain:

1. A way, for donors, to describe precisely the material that they are willing to give away at no cost, and the conditions to which they agree to donate it (e.g. a promise not to use it for illegal activities, a restriction on the type of users [charities, educational institutions only...] or uses [no competition on their own field of activity, no military use or police surveillance...], a restriction on the countries where they accept to export...);
2. A way, for independent shippers, to offer shipping services, describe their generic terms and conditions, and to propose a way for other users to ask for an invoice for a specific shipment;
3. A way, for receivers who are looking for second-hand equipment, to make an efficient search through the available donation offers, to select an offer that suits their needs, and get in contact with the donor;
4. A way, for receivers who have agreed to the terms of a donation with a donor, to optionally contact an independent shipper on the platform (this is optional: they may also wish to propose to use the services of a well-known 3rd-party shipping company);
5. An internal messaging system allowing the users to exchange messages via the platform without a need to disclose their e-mail addresses in the first place. The delivery of messages is submitted to social networking constraints (see below, §4).
6. A way, for any user who has been involved in a transaction with another user, to evaluate the quality of the cooperation, and optionally to leave a comment (the comment can be either public or private);
7. A simple and visible way to access the public sections of the site without disconnecting;
8. and, visible at a fixed position on the viewport (same as in the public section, see 4.3.1), an invitation to sign out (disconnect).

Once logged in the private section of the platform, the users may access all of the functions described above. The online meetings may take place either as written discussions using the internal message board (4.3.2, §5), or as online video meetings involving a 3rd-party operator (free options are provided by zoom, webex or jitsi).

4.4. Implementation

A LAMP server will be available for you to upload your site. At the end of the project the site will be visible under the hierarchy of the host <http://international.iut-bobigny.univ-paris13.fr> (or <http://81.194.40.29>). In every team, the person responsible for server access is individually in charge of the team’s credentials on the server, and this should be an individual responsibility.

The development language shall be PHP and the relational database system MariaDB.

4.5. Communication and graphic design

Should your team want to launch your platform in the real world, you would need to make it well-known and easily recognizable. You are asked to plan a communication strategy to make your new service known to the targeted audience, and also to design a recognizable visual identity.

4.5.1. Communication strategy

Digital network communication:

- The video mentioned in 4.3.1 should be hosted either on our server, or on a public video hosting network (like PeerTube), or platform (like Vimeo, YouTube or DailyMotion).

A digital communication campaign on other networks (Facebook, Twitter, Instagram...) is requested and should be exposed and explained.

4.5.2. Creative strategy

The graphic designers will be in charge of all visual files for the website; they will also see to printed matter (posters, flyers).

Then they will have to set up the graphic specifications, finalize the graphic side of the project and defend it.

It is required that the site designers take particular care in imagining intuitive interfaces, based on cognitive ergonomics principles.

Their work will be summed up in a document called **graphic charter**, that will be handed to the jury. The graphic charter describes:

- the visual aspect of the site;
- the logotype and its possible variants;
- the brand identity that has been defined to communicate on different media;
(including: interface and banners on auxiliary networks: Vimeo or YouTube channel, social networks if applicable...);
- graphic elements included in the video tutorial (e.g. motion design, panels, decoration);
- posters and flyers designed to promote the network when launched.

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