

**SOFTWARE ENGINEERING – COURSE 2020-21**  
**Final Project Statements**  
Oct 2020

The following ideas have been selected as candidates for the final project. **Each group must select ONE of the options.**

The selected ideas will have a bonus of 0.5 points.

**OPTION 1: DIGITAL EARS**

Some of the biggest companies in the gaming industry are making a big effort to improve the accessibility aspect of videogames, for example, Microsoft has created the Xbox Adaptive Controller. At the same time, some video game studios like the ones responsible for Minecraft or Fortnite have been making adaptations, however they do not cover all user needs related to accessibility.

It is in this context DigitalEars emerges. It is mainly about the provision of a third-party system that can be integrated to the current video games dealing with sound related accessibility features of the video games.

This system intends to use artificial intelligence techniques to automatically recognize and categorize the different types of interactions providing a sound description and guidance.

With this system there would be an improvement in the accessibility of video games enriching the visual interface with an appropriate sound description.

**Remark. – This project proposal is partially based on the ideas of the group 189-07.**

## OPTION 2: INSTAJOBS

Labour market currently offers many jobs called “mini jobs”. There exist many companies looking for people who can do concrete tasks and, in the same way, there exist many people interested in doing those tasks. Offers and demands are usually very dynamic.

In this framework, Instajobs emerges to deliver a platform to manage “mini-jobs” offer/demand. This platform will implement capabilities to: publish offers (including promoted advertisements), establish connections among companies, search for jobs according to user preferences and profiles and, mainly, establish the proper communication channels between job seekers and employers. The platform will also include means to reach an agreement on working conditions. Finally, the working experience will be assessed by both workers and employers.

Remark. – This project proposal is partially based on the ideas of the group **83-08**.

### OPTION 3: MyInvoices

In the digital era, right in the midst of the Industrial Revolution 4.0, commercial transactions or business proofs are still, in many cases, being done through physical invoices or bills.

Mostly, this type of paperwork is set apart or immediately discarded (printed to the customer, given and probably disposed, forgotten or lost). Nevertheless, product or service guarantee is linked to own that very invoice or bill and, in the business landscape, it is usually compulsory to be used as an expenses solid proof.

Aiming to digitalizing the invoice, bills or other documents, tied to a commercial transaction, management process, MyInvoices is born. It consists of a system to deal with (add, store, etc) invoices linked to a bank account or credit card. This management will include vendor details, geo-location and other interesting metadata which could fulfill different purposes, such as tax accounting. The process will be based on information exchange from a virtual invoice issued between seller and buyer. In addition, means to digitalize those on printed format shall be provided, decreasing user interaction and focusing on the capabilities of mobile devices to scan documents, etc.

Further to making more agile this invoices management process, an improvement in natural resources would also be improved and achieved.

**Remark. – This project proposal is partially based on the ideas of the group 183-01.**

#### OPTION 4: Food4U

New lifestyles are happening often, so, what could be better than undergoing them through a tool helping us through the process?

Food4u comes into the arena to support you gain control, from your pocket onwards, most of your usual activities.

For instance, who isn't tired of product lists for groceries or supermarket?

Are you knackered from reading product nutritional information and remain ignorant on health implications?

If at least one of the answers was straight "yes", Food4U will help you addressing these needs. You will rely on capability to instantly analyze product nutritional properties and information, over your mobile device. Similar or alternative products will also be tackled and adjusted to your defined profile or based on your preferences over time.

In addition, a "digital chef" service will be provided, guiding you through the cooking process, with special attention to your products and other user preferences and choices. These recipes will be ranked and a guide to locate those products not already sitting on your digital shelf will support you at all times.

All in all, Food4U pops up to manage a "digital shelf" to keep a healthy lifestyle and explore new and best-of-breed products suitable for you and your taste.

**Remark. – This project proposal is partially based on the ideas of the group 52-08.**