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# OVERFLOW

## PROPOSAL OF THE PROJECT APPLICATION AREA

One of the most requested areas for learning is programming, which makes a lot of sense, since programming allows the people who study it, to increase the productivity, efficiency and effectiveness of a person in their work, regardless of the profession they develop; on the other hand, programming helps to achieve more effective communication, helps to solve problems and, most importantly, develops learning skills.

In fact, 55% of Mexican students do not reach the level of basic competence in mathematics, the same happens with 47% of students in science (Montalvo, 2013). So once said all the problems that want to be tackled, such as lack of curiosity, the lack of skills related to this area, such as critical thinking, logical thinking, problem solving, leadership and decision making; the lack of a deep self-study that encourages curiosity and learning.

We believe that the development of an educational platform will undoubtedly help to increase curiosity and self-study levels among students interested in programming areas, in the same way, due to the fact that such platform will contain truthful and functional information, will allow to reduce misinformation in the field of programming

## “STATE-OF-THE-ART”

Today there are a variety of online study platforms, such as DevCode, Udemy, Skillshare, Khan Academy, Microsoft Virtual Academy, Coursera, to name a few, and if that were not enough or for some reason or other, we are not familiar with the platforms, we do not have to go far to find knowledge online, an example of it, are the various tutorials that the various content generators of YouTube offer to their subscribers

Although this platforms offer a great variety of advantages such as:

- Learning customized, the student can have different ways to learn. You will choose the best platform, or the platform that you think, will be complete (Anonym, 2016).
- Receive feedback, when you end a course, some courses make quizzes, so this is a way that you receive it or you have to deliver homework (Anonym, 2016).
- You are free to choose what you want, your necessities that fit into your own specific needs (Anonym, 2016).

There are also a lot of disadvantages, such as:

- The students don't have a human interaction (Armstrong, 2013).
- Online learning can be difficult, if it is meant for disciplines that involve practice (Armstrong, 2013).
- Cannot cope with thousands of students that try to join discussions (Armstrong, 2013).
- As there are many course available, the user may not know which is the best that fits is needs (Armstrong, 2013).
- Due to the fact of the great variety, there may be a lot of misinformation among all those platforms (Armstrong, 2013).
- The course by itself may not have good quality content, and therefore that helps increasing misinformation (Armstrong, 2013).

## OPPORTUNITIES OF INNOVATION

*True Information:* One of the pillars in which our proposal will innovate, is the fact that the information provided will be totally helpful and hundred percent true.

*Specific Needs:* if the course that a user is looking for is related or closely related to programming on the web, learning different web programming languages or having an introduction to the web programming.

*New Learning Structure:* this platform will provide a new learning system which knows and adapts to the needs of the target audience; including the skills that are intended to be developed (curiosity, self-study, determination, organization, etc.) adapted to the target audience. In short, it can be summarized as the knowledge of one student to another student.

The clear evidence of differentiation of this platform with respect to existing ones is the fact that the information provided will be of quality since it will not be compromised for lucrative purposes.

## USER'S PROFILE

- Students of information technology careers, designers, young people interested in web design that want to learn new development skills to create better web sites.
- The profile of the target audience must be a combination of a creative mind for the realization of the design of a page, however, at the same time must have a certain level of logical and deductive capacity for understanding the functions and elements of the various programming languages.
- The user profile must be pragmatic and utilitarian.
- The user must have that little flame of curiosity and desire to learn (such flame may be almost off).
- The user must have a certain level of interest in science and technology topic, especially related to programming.
- Age group: 15 to 25 years old.

# CONCEPT DESIGN OF THE INTERACTIVE SYSTEM



These kinds of fonts are, currently, very well accepted by the users, because help to keep clean the interface and are very light.

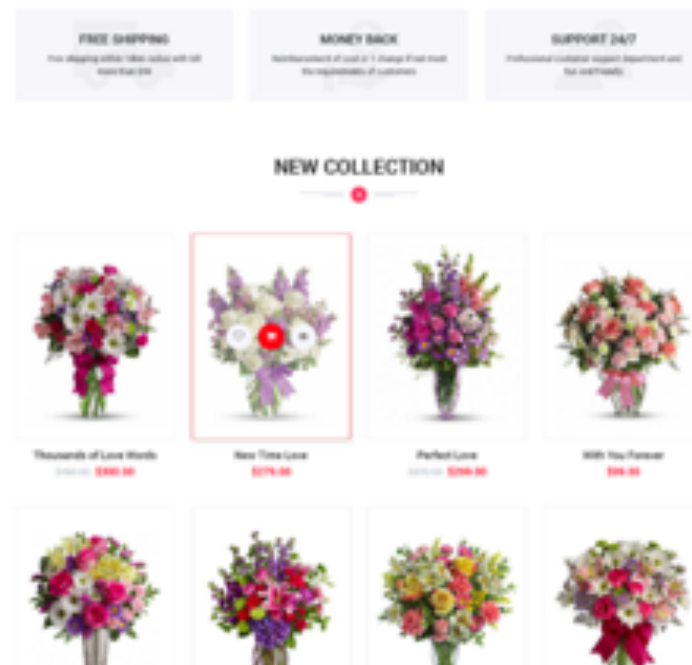
As you can see in the image, the platform will be grid based. The main reason why this type of alignment was chosen is the same as mentioned in the font aspect, the main intention is to maintain a clean graphic interface that is pleasant to the taste, that is utilitarian and pragmatic, easy to understand and to see

Playfair Display  
Claus Eggers Sørensen (6 styles)

Noto Sans  
Google (4 styles)

It was going to be a lonely trip back.

Mist enveloped the ship three hours out from port.

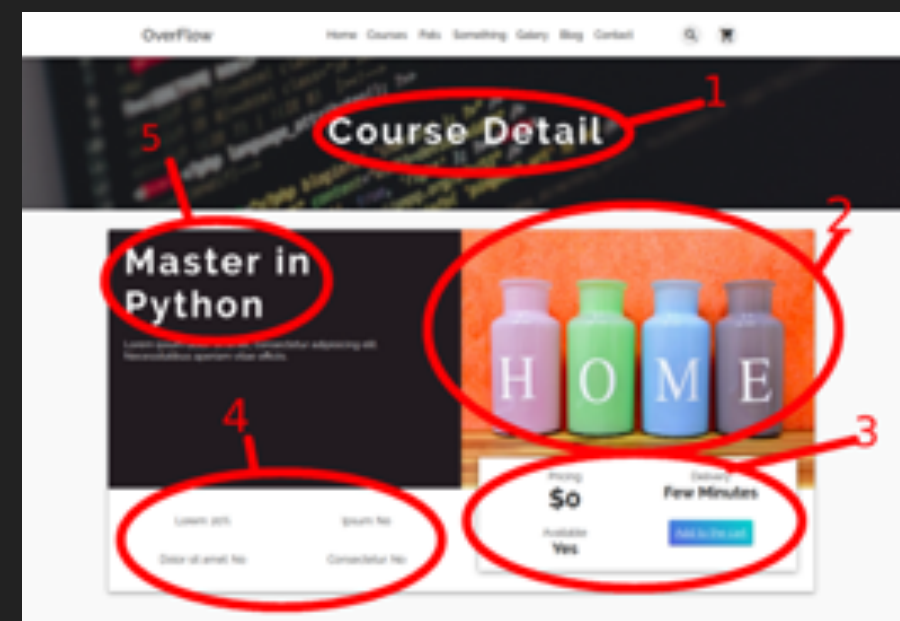
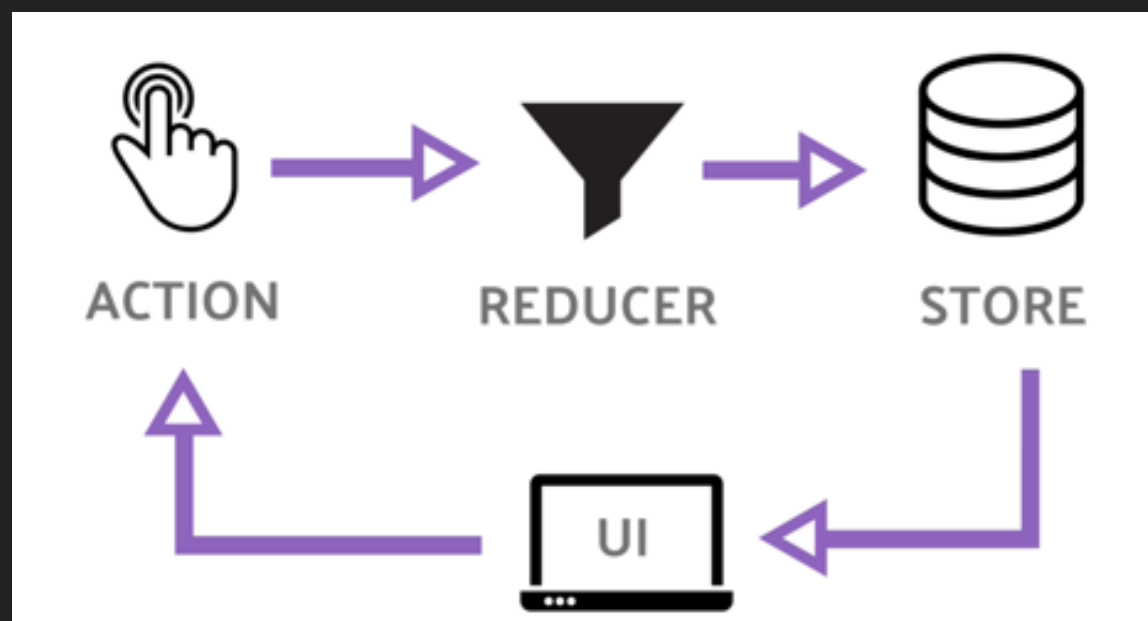


# INTERACTION DESIGN

With respect to our website is going to be simple, there will be no necessity for any instructions, the interaction of the user with the platform will be direct manipulation.

The interface of the platform will be clean, according to the latest trends of web design. The design philosophy we will use is going to be **Google's Material Design**. This way, we can save time in the design in order to make a better functionality of our project.

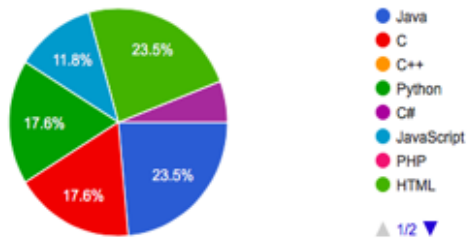
With Material Design the UX will be more comfortable because almost all the regular users we expect to use our platform are familiarized with this kind of designs.



# ANALYSIS OF THE USER'S TASKS

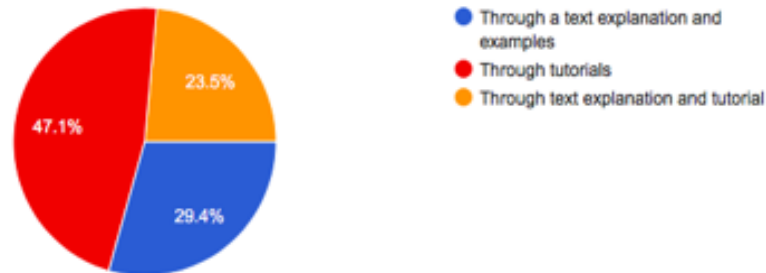
1.- Which programming language do you want to learn more or start learning?

17 responses



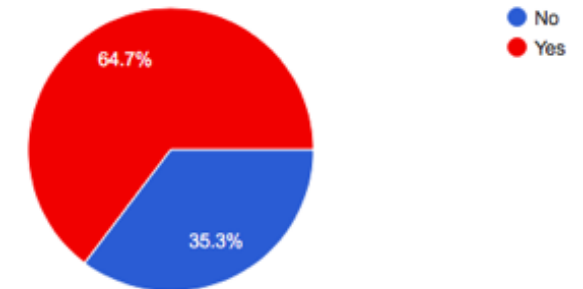
2.- How would you learn a programming topic better?

17 responses



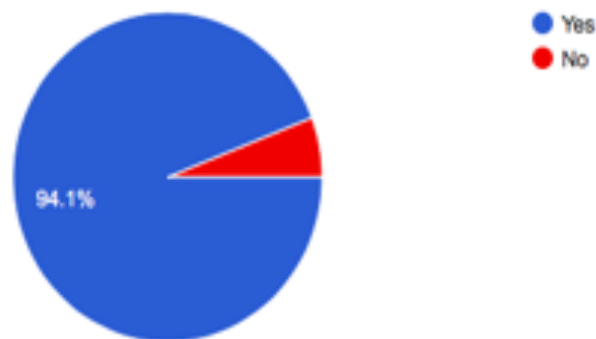
3.- Would you pay for a platform like this?

17 responses



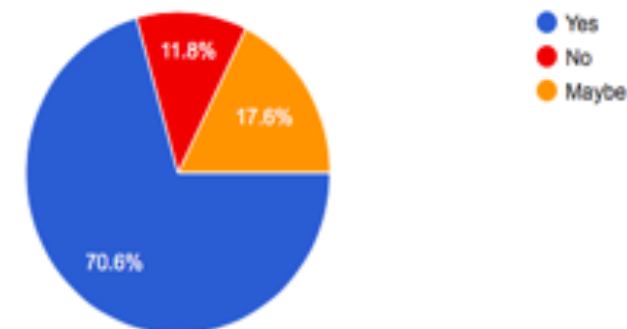
4.- If the platform has a chat for users to ask their programming questions, would you use that tool?

17 responses



5.- Would it be useful the platform to have some measurement method about your progress in learning regarding the programming language you want to learn?

17 responses



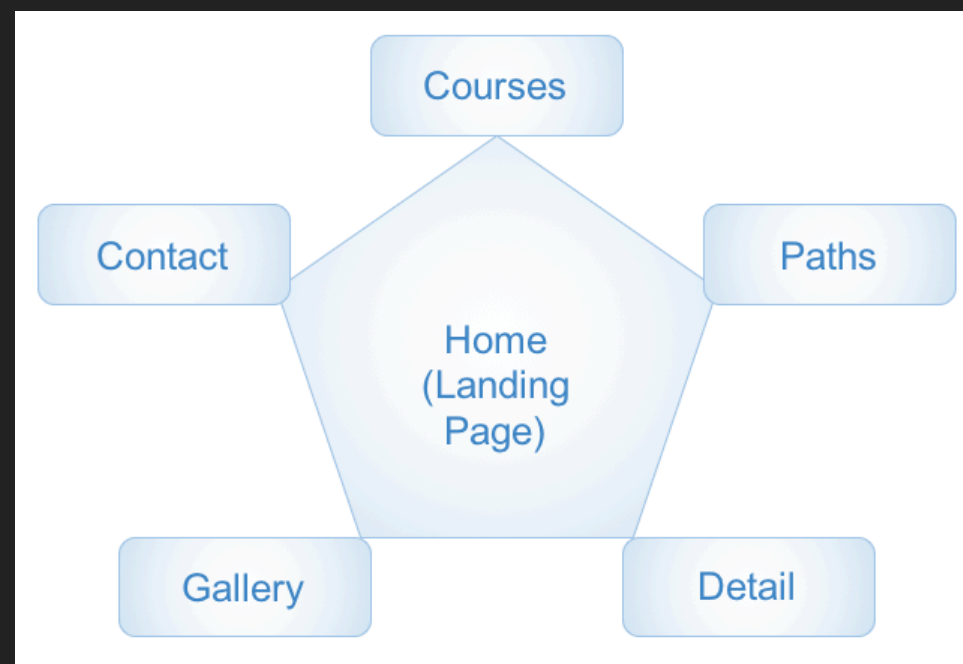


## PROTOTYPE DESIGN

We consider that the best information structure for the application is a combination of the different structures the information structure that is going to have is a star structure, with a combination of a hierarchical structure.

It is possible to say that our interaction style is going to be simple, there will be no necessity for any instructions, the interaction of the user with the platform will be direct manipulation. The design philosophy we will use is going to be **Google's Material Design**. This way, we can save time in the design in order to make a better functionality of our project.

The visual aspect of the web page will be very minimalist, in such a way that motivates the search for information and curiosity, however it will not hinder the search for information to the user.



## ANALYSIS OF THE IMPLEMENTATION PRINCIPLES

Implementation of this first golden rule, it has been decided to have a minimalist design throughout the graphic interface of this interactive system. Same color alignment and interaction throughout the different interfaces of the system.

The interface design used will be recognizable by all the people, in fact, the user who is using the application will easily know how to distinguish between a button and the various sections that the system interface will present. The interactive system in development will have support in various web platforms, such as Google Chrome, Mozilla Firefox and Safari.

The developing system is characterized by being a closed information system, in fact, it will have within itself a large number of limitations that will limit the possible errors.

The user will have total control of what happens to the time of execution of the interactive system.

The interaction with the system, as previously mentioned, will be extremely simple and intuitive, the user will know how to interact with the system just by looking at it.

## EMOTIONAL ASPECT

To portrait positive emotions regarding our interactive application; the interface of our application will show balance and consistency throughout the page in aspects such as colors, fonts and distribution of spaces within the interface.

To avoid the frustration of the user, it is very important that the control over what happens in the application is given to the user, in this way, the site will respond to the actions that the user wants.

The site will be responsible for providing the necessary information that the user needs, so the error can be solved in the most effective way possible.

The forms, shapes and structures used will transmit to the user the sensation of being in a functional application and of a high degree of truthfulness.

Name (optional): \_\_\_\_\_

[illegible]

Name (optional): \_\_\_\_\_

1) The overall grade of the design of the page	terrible ○○○○○○○○○○ wonderful
2) The usability of the navigation (direct manipulation)	hard ○○○○○○○○○○ easy
3) It is easy and intuitive	not at all ○○○○○○○○○○ very much
4) Organizational structure of the information	confusing ○○○○○○○○○○ very clear
5) The color palette of the website	inconsistent ○○○○○○○○○○ consistent
6) Position of visual elements (images, videos)	inconsistent ○○○○○○○○○○ consistent
7) The good design interferes the usability	never ○○○○○○○○○○ always
8) The control and interactors are useful	unhelpful ○○○○○○○○○○ helpful
9) The object arrangement is _____ to understand	difficult ○○○○○○○○○○ easy
10) The colors saturate the website design	never ○○○○○○○○○○ always
11) The design enhance the usability	never ○○○○○○○○○○ always
12) The design is easy to understand or is oversaturated	oversaturate ○○○○○○○○○○ easy
13) The design is consistent in the website	never ○○○○○○○○○○ always

Name (optional): \_\_\_\_\_

1) The overall grade of the functionality of the page	terrible ○○○○○○○○○○ wonderful
2) Understanding the functionality of the website is difficult or easy to understand	hard ○○○○○○○○○○ easy
3) The website meets the user expectations	not at all ○○○○○○○○○○ very much
4) The website meets the user needs	not at all ○○○○○○○○○○ very much
5) All interactive objects enhance the functionality	not at all ○○○○○○○○○○ very much
6) The functionality is consistent through all buttons and options	inconsistent ○○○○○○○○○○ consistent
7) The website accomplishes all tasks successfully	never ○○○○○○○○○○ always
8) The functionality is enhanced by the design	never ○○○○○○○○○○ always
9) The functionality of the website is enhanced by the usability	never ○○○○○○○○○○ always
10) The website is functional for different user's levels	never ○○○○○○○○○○ always

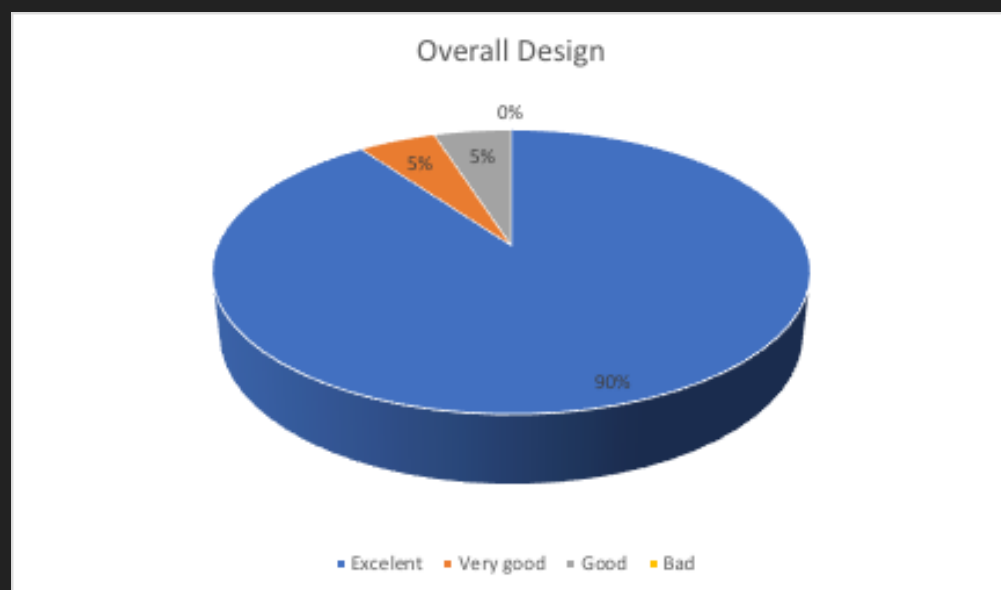
## IMPLEMENTATION OF THE EVALUATION / ANALYSIS AND CORRECTIVE ACTIONS

In fact, the main characteristic that the potential users marked out as outstanding, was the design, they told us that it was really minimalistic, simple and intuitive, characteristics that our team always tried to achieve.

They told us that one big advantage is the fact that you don't need to remember any special command or name to make the things work.

They stressed the fact that in order to interact with the system, the user makes use of previous knowledge, so there is no need to learn anything new.

People told us that it is a very flexible system do to the fact that it was easy to understand, interact and that it is useful to different type of users.



## IDENTIFICATION OF FUTURE DEVELOPMENT OPPORTUNITIES

- Courses search system: the user had the possibility to search the courses by entering keywords and the system would show the related courses.
- Shopping cart: the business model of the Overflow's project was for the user to choose the course of their choice, and if this was the one desired by the user, the system would offer the ability to buy it, adding it to the shopping cart and finally paying and being able to download all the content related to that course.
- Gallery: consists on a section of the page where it would be possible to find all the images related to the topics that are described in the courses that are taught.
- Forum for discussion and help: consists on an open forum where the various users of the platform would have the ability to expose all their doubts about the programming issues, in such a way that the most experienced users who attend the platform can give solutions to the problems, all with the aim of achieving a programming community.
- More courses available: C, C++, C#, Python.



# THE CORRECTED VERSION

OverFlow

Courses

Paths

Contact



Development Courses

GO TO THE WEBSITE