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Genesis Program

## Participant's book of Requirements

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# Summary

This document aims to describe the two weeks "Genesis" program offered by CodeBoxx.

At the end of these two weeks, candidates should have been able to familiarize themselves with the concepts that make them operational in the fields of expertise of a "Full Stack" developer as they put those notions into practice. They will do so using free and open source software.

The objective criteria for success are clearly defined in this document.

# Objectives

1. Describe the scenario, context, tasks, requirements, deliverables and acceptability criteria to assess the program participant's success

# Implementation, Milestones, Requirements and Success Criteria

**Scenario of the exercise that must be carried out individually by the candidate over a period of two weeks:**

You are the developer selected to launch the digital presence of a company called Rocket Elevators. Rocket Elevators is a large fictional company that has made the decision to make a digital transformation to survive in a world in which technological innovations are accelerating. During this digital transformation, which will also continue to take place throughout the duration of the Odyssey program, the scenarios and the exploratory tasks will be aligned with the themes as the weeks go by.



The *Rocket Elevators* enterprise wishes to:

* Establish an online presence to serve customers they way they want to
* Rethink and enhance products with emerging technologies
* Better present its offer and make it attractive for potential customers
* Modernize its processes, improve its productivity and the quality of its solutions
* Improve efficiency and enhance its margins through automation

## Getting started with a website without the assistance of a Designer

Using a pre-fabricated HTML template made available to candidates, we want to show you a less well understood side of the Web and that there are standards accepted by the market, web users and its community in general. These standards are often implemented in editable templates.

Most of the time, this approach allows us to skip the use of pricy designers who start from scratch since web designers are often the co-authors of the models we use. Starting from a flexible model makes it possible to jump into the heart of the subject quickly: The message and the content.

### Deliverable description:

On the basis of a Bootstrap model called "Smarty", whose thematic implementation was carried out for the construction domain (<http://theme.stepofweb.com/Smarty/v2.2.1/HTML_BS4/index-onepage-construction.html>), the candidate must implement a Bootstrap 4 website for Rocket Elevators to allow them to engage with their current and future customers. All logos and visuals of the company Rocket Elevators will be provided to the developer.

The developer has the choice to implement his website in French or in English. The choice of the English language will give more points during the evaluation for the power ranking. The site can not be in “Frenglish”. It's either 100% in one language or 100% in the other.

* The HTML pages are already styled and adapted. You only need to modify them to implement the following sections of the site:
  + The Home Page in Wide and Non-Boxed Implementation
  + The Slider of the Home Page, which must contain 3 panels and each panel must be displayed 7 seconds before moving on to the next. The rotation must also be continuous.
    - Slide 1: Slogan - Link to the offer of services and Link to the quote request form
    - Slide 2: Promotion of residential building service and link to residential service detail page
    - Slide 3: Promotion of corporate building service and link to corporate service detail page
  + No reference to the "Smarty" template should remain, the illusion that Rocket Elevators is a real company must be complete. No remnants of a construction website must be found.
  + A ribbon under the slider details three elements:
    - The company has won numerous awards and participated in many major projects. A link redirects to the section that retraces these awards and projects.
    - The company offers a service for residential buildings and offers a link to the page that details this service
    - The company offers a service for corporate buildings and offers a link to the page that details this service
  + The company has been in business since 1976 and a ribbon positioned lower on the Home Page indicates that. That same section offers a link to the “request a quote” form and a link to another form called “contact us”
  + A Portfolio section below in the Home Page features a combination of 12 recognitions or major projects made by the company. These prizes and projects are fictitious and must be invented by the developer. They must reflect a diversity among the residential, corporate, project names, prizes, etc. Their visuals are not provided and must be imagined by the developers.
  + A section of the Home Page must be positioned under the Portfolio and present the CEO of the company and the employee of the month. The CEO of Rocket Elevators is one of the coaches introduced as supervisor of the cohort. The selected coach will therefore provide the participant with a photo that can be inserted into the carousel. The employee of the month is the participant himself, so she or he will have to provide a photo that will be inserted into his carousel.
  + Under the Home Page staff section, there will be a “News” section and Press Releases will be showcased below. A selection of 6 news related to the elevator business will have to be proposed. These articles can be extracted from a simple Google search. The authenticity of the articles is not sought here. The visual and summary of these articles must be invented by the developer. Only a selection of items can be visible at the same time and scrolling must be allowed. This scrolling must go back to the first article when the end is reached.
  + A section "Our Customers" must be implemented under the section of the press review, always on the Home Page. This section should simply list the logos of 12 Rocket Elevators customers. These 12 customers are fictitious and the names and logos can be taken on the Web. They can be existing known companies or they can me made up and parodies.
  + The "Contact Us" form is the last section set up on the Home Page before the Footer. It offers two sections, the first gives the address and the contact information of Rocket Elevators (the coordinates are those of CodeBoxx School) and the second offer a section to allow the entry of the following fields:
    - Contact Full Name
    - Business Name
    - Email
    - Phone Number
    - Project Name
    - Project Description
    - Department
    - Message
    - File attachments (zip/pdf/jpg/png)
  + The footer section already in place in the model must be implemented with real content but can remain in the format and according to the layout proposed by the model.
  + The navigation bar at the top of the page must be visible at all times, it must present the logo of Rocket Elevators and propose a menu that offers shortcuts to the various anchor points of the Home Page previously described:
    - Home (Top of home page)
    - Services
    - Portfolio
    - News
    - Clients
    - Contact
* Two additional pages in addition to the Home Page must be created on the website. These two landing pages will contain the same menu and the same footer as for the home page of the site. An appropriate model among those proposed by the Smarty template must be selected and their content must be adapted to describe briefly the offers of Rocket Elevators:
  + A landing page dedicated to elevator solutions for residential buildings
  + A landing page dedicated to elevator solutions for commercial and corporate buildings

## “Request for a Quote” form in Javascript

In a dedicated page which will contain the same navigation bar and the same footer as for the Home Page, a page will propose a form that will request a quote that can be taken by the sales team of Rocket Elevators. The form must proceed to the calculation on the same page of certain elements according to the information provided by the visitor of the site:

* As a first step, the form asks to specify if the building is of type (It is possible to select only one option at a time):
  + Residential
  + Commercial
  + Corporate
  + Hybrid
* If the type of building selected is “Residential, we ask for:
  + The number of apartments in the building
  + The number of floors contained in the building
  + The number of basements contained in the building
* If the selected building type is “Commercial”, we ask for:
  + The number of distinct businesses.
  + The number of floors contained in the building
  + The number of basements contained in the building
  + The number of parking space available
  + The number of elevator cages to be deployed
* If the selected building type is “Corporate”, we ask for:
  + The number of separate tenant companies
  + The number of floors contained in the building
  + The number of basements contained in the building
  + The number of parking spaces available
  + The maximum number of occupants per floor
* If the selected building type is “Hybrid”, we ask for:
  + The number of distinct businesses
  + The number of floors contained in the building
  + The number of basements contained in the building
  + The number of parking spaces available
  + The maximum number of occupants per floor
  + The number of hours of activity of the building (the maximum being 24)
* Depending on the answers to the different questions, an estimate of the number of lift cages must be generated based on the following business rules:
  + If the type of building is Commercial, the number of elevator shafts to be deployed is specified and the estimated number of cages is equal to the number required.
  + If the type of building is Residential, divide the number of apartments by the number of floors (**excluding** the number of basements) to obtain an average of doors per floor and require an elevator shaft for every 6 apartments. If the apartment has more than 20 stories, it is necessary to provide an additional column of elevators and thus double the number of elevator shafts. A new column is therefore added to each new group of 20 stories.
  + If the type of building is Corporate or Hybrid, multiply the number of occupants per floor by the number of floors (**including** the number of basements) to obtain the total number of occupants. The number of elevators required is determined by the number of occupants divided by 1000. The number of stories (**including** the number of basements) is divided by 20 to obtain the number of elevator columns required. Then divide the number of elevators by the number of columns to get the number of elevators per column. The total number of elevators is determined by the number of elevators divided by the number of columns.
  + A read-only field should display the recommended number of elevators based on the rules above. This field must be updated systematically when a dependent value field is changed.
* To determine the budget, it is necessary to propose a selection among the range of elevators to determine the unit price and thus multiply it by the number of cages previously calculated to know the estimated budget of the project.
  + A radio button must allow selection from three distinct product lines: Standard, Premium or Excelium
  + When the line selection is made, a service is called that returns the unit price for an elevator shaft of the chosen line.
    - Standard: The service returns $7565
    - Premium: The service returns $12,345
    - Excelium: The service returns $15,400
  + The installation fee varies for each product line, and a field calculates the amount equivalent to the percentage returned by a service
    - Standard: Installation fees of 10%
    - Premium: Installation fees of 13%
    - Excelium: Installation fees of 16%
  + The estimated cost of installation is the unit cost of the selected range multiplied by the number of cages previously calculated. To this number must be added installation costs according to the selected line.
  + Whenever the line selection changes, the fields in this section must be systematically updated. Calculated fields must be read-only and can not be edited.

## Delivery of the website code in a Github repository

When setting up their tools, participants will be asked to create their own GitHub ID on a source code control service called GitHub (<https://github.com>) . And they will be required to create their own public repository named "RocketElevatorsDigitalPresence" which will contain the code for the website and other deliverables required by the program.

Although the virtues and mechanics of version control are not all highlighted during this first part of the program, the basics of version control, commits and access to repositories will enable you to turn in your deliverables for the grading phase.

## Purchase a domain name and SSL security certificate

The site will be deployed and exposed on the internet. We need to be able to assign a domain name to the site, and make the necessary manipulations on the DNS and web servers that will be hosted on AWS.

You also have to learn secure hosting behind Cloudflare.

## Deploying the site on a Web server

The website and all components of the final solution must be posted on a public server. The file deployment procedure can be followed according to a document that will be provided in the coming days prior to the final phase of delivery.

## BONUS for going the Extra Mile

Once all your deliverables will be deployed and working, you will have the possibility to acquire superior skills and show enhanced value by making the calculation of the quote external through a Node.js web service implementation. More specifications on the opportunity will be provided by the coaches upon request.