



INTELI

INSTITUTE OF TECHNOLOGY AND LEADERSHIP

COMPUTER ENGINEERING

Restructuring of offers and capital call screens

Course Conclusion Paper

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Abstract

A redesign was necessary for the Shareholders by Capital Call screen before integrating a new email reminder feature due to its accumulated responsibilities and lack of structure. The existing interface, initially developed without proper planning, had become disorganized and inflexible, making it difficult to incorporate new functionalities, such as additional email dispatch options. To address this, the screen was restructured based on a modular approach, splitting its core functionalities into two independent screens: Boletagem and E-mails. These new screens were integrated as submenus within the Capital Call section, ensuring a more scalable and intuitive user experience. The revision also led to improvements in the offer registration form, which was previously an unstructured collection of fields. The new structured layout enhances usability, facilitates data entry, and introduces essential controls, such as marking fake offers for better filtering. This restructuring lays the foundation for future enhancements while improving overall system efficiency and user interaction.

List of Figures

Figure 1 – Offerings Registration’s current process flowchart	11
Figure 2 – First Shareholders by Capital Call Scren’s current process flowchart	11
Figure 3 – Second Shareholders by Capital Call Scren’s current process flowchart	12
Figure 4 – Value Proposition Canvas	15
Figure 5 – Schedule	19
Figure 6 – Resources	19
Figure 7 – Package diagram	23
Figure 8 – Physical diagram	24
Figure 9 – Physical diagram	25
Figure 10 – Physical diagram	26
Figure 11 – Basic overlay	31
Figure 12 – Intermediate overlay	32
Figure 13 – Advanced overlay	32
Figure 14 – State colors	33
Figure 15 – Moderat Font	34
Figure 16 – Default	35
Figure 17 – Underline	35
Figure 18 – Strikethrough	35
Figure 19 – Offer Registration - General	38
Figure 20 – Offer Registration - CETIP	39
Figure 21 – Offer Registration - CVM	39
Figure 22 – Content switcher	40
Figure 23 – Billing section	41
Figure 24 – Financial receipt list	42
Figure 25 – Financial receipt detailed	43
Figure 26 – Reverse overpayment	44
Figure 27 – Generated fund orders list	45
Figure 28 – Manual confirmation	46
Figure 29 – Manual impact confirmation	47
Figure 30 – Contribution closing	48
Figure 31 – E-mail section	49
Figure 32 – Email editing	50
Figure 33 – Receipt preview	51
Figure 34 – Receipt sending	52

List of Tables

Table 1 – Persona	10
Table 2 – Offerings Registration’s current user journey	13
Table 3 – Shareholders by Capital Call screen’s current user journey	14
Table 4 – KPIs	21
Table 5 – Non-Functional Requirements	22
Table 6 – Functional Requirements	30

List of abbreviations and acronyms

API	Application Programming Interface
CETIP	Custódia e Liquidação Financeira de Títulos Privados (Center for Custody and Financial Settlement of Certificates and Bonds)
CGE	Certificação de Gestores ANBIMA para Fundos Estruturados (Certification of ANBIMA Managers for Structured Funds)
CI/CD	Continuous Integration / Continuous Delivery
CUD	Custo unitário de distribuidor (Distributor Unit Cost)
CVM	Comissão de Valores Mobiliários (Brazilian Securities and Exchange Commission)
KPI	Key Performance Indicator
NFR	Non-Functional Requirements
TED	Transferência Eletrônica Disponível (Available Electronic Transfer)
UX	User Experience

Contents

1	Problem understanding	8
1.1	Problem definition	8
1.1.1	Persona	9
1.1.2	Current Process Flowchart	10
1.1.2.1	Offerings Registration	11
1.1.2.2	Shareholders by Capital Call Screen	11
1.1.2.3	Identified problems	12
1.1.3	Mapping the Current User Journey	13
1.1.3.1	Offerings Registration	13
1.1.3.2	Shareholders by Capital Call Screen	14
1.1.4	Value Proposition Canvas	15
1.1.4.1	Customer Section	15
1.1.4.2	Product Section	16
2	Solution planning	17
2.1	Detailed submission plan	17
2.1.0.1	Implementation plan	17
2.1.0.1.1	Development Methodology	17
2.1.0.1.2	Schedule	19
2.1.0.1.3	Resources	19
2.1.0.2	Performance indicators	20
2.1.0.3	Project justification	20
2.2	Non-functional requirements	21
2.3	Architecture	22
2.3.1	Package diagram	23
2.3.2	Physical diagram	24
2.3.3	Use cases	24
2.3.3.1	Settlement use cases	25
2.3.3.2	E-mail use cases	26
3	Creating and validating the new interface	27
3.1	User stories	27
3.1.1	User Stories for Olivia Buoro (Offerings Analyst)	27
3.1.2	User Stories for Aline Bacalhau (Settlement Analyst)	28
3.1.3	User Stories for Lorena Saporì (Executive Director of Closed-End Funds)	28

3.2	Functional requirements	29
3.3	UX/UI guidelines	31
3.3.1	Colors	31
3.3.1.1	Thinking in layers	31
3.3.1.2	Overlay logic	31
3.3.1.3	State colors	33
3.3.2	Typography	34
3.3.2.1	Text properties	34
3.3.2.2	Text decoration	34
3.3.3	Spacing	35
3.3.3.1	Header	36
3.3.3.2	Body	36
3.3.3.3	Page Information	36
3.3.3.4	Section	36
3.3.3.5	Footer	37
3.4	Wireframe	37
3.4.1	Offerings Registration	37
3.4.1.1	General	38
3.4.1.2	CETIP	39
3.4.1.3	CVM	39
3.4.2	Shareholders by Capital Call Screen	40
3.4.2.1	Billing section	41
3.4.2.2	E-mail section	49
3.5	Validation	52
3.5.1	Offerings Registration	53
3.5.2	Shareholders by Capital Call Screen	53
3.5.3	Results	54
3.5.3.1	Offerings Registration	54
3.5.3.2	Shareholders by Capital Call Screen	54
4	Conclusion	55
	Bibliography	57

1

Problem understanding

1.1 Problem definition

To better understand how the problem addressed in this project arose, it is necessary to go back to the inception of the closed-end funds area at BTG Pactual bank. This area is extremely new, having been established only four years ago, driven by the need for digital transformation in the funds sector. Various systems were hastily created to meet immediate needs, resulting in a system with little planning and numerous gaps to be filled.

In 2024, a project was initiated to optimize the process of sending emails to shareholders, managers, and distributors, which until then was done through an Excel macro. This method was unintuitive, slow, and did not allow multiple users to access the application simultaneously, presenting many difficulties for performing a task as simple as sending an email. During that year, all the demands necessary to eliminate the use of this macro were identified, and subsequently, the implementation of these demands began.

During the planning of one of these demands, the sending of reminder emails for share integration, it was noticed that the screen where this functionality should be added contained various other functionalities with completely different purposes. Adding a tracking feature for sending reminders on this screen would be confusing, making it difficult to create a good user experience. Therefore, it was decided that the best course of action would be to understand the existing screens, identify the errors made, and then develop a new experience that would allow for maintainability and ease of growth.

The screens chosen for transformation were the current offer registration screen, which presents a set of information without any separation by subject, making it tedious to fill out, and the screen that contains the shareholders present in a capital call. In the latter, the reminder sending functionality needed to be added, but the amount of diverse information in a single

location caused confusion for the user.

1.1.1 Persona

A persona is a fictional representation of an ideal user based on real data and demographic, behavioral, and psychographic characteristics. Personas are used to better understand users, their needs, behaviors, pain points, and goals. They help guide the development of products and services, ensuring that the solutions created meet the expectations and needs of real users. By using a base persona, empathy is fostered, and decision-making becomes more accurate.

In the context of the project, it is essential to have three different personas to capture the diversity of users interacting with the system. The project addresses two distinct branches of the closed-end funds world: offerings and liquidation of capital calls. Therefore, it is necessary to have a representative for each area, in addition to including the perspective of the executive director, who is responsible for the overall functioning of the closed-end funds.

- **Offerings:** Represented by Olivia Buoro, the offerings analyst, who deals directly with the registration and monitoring of offerings. Her needs and frustrations are specific to the offerings process, such as organizing information and efficiency in data entry;
- **Liquidation of Capital Calls:** Represented by Aline Bacalhau, the liquidation analyst, who focuses on liquidation and capital call control. Her needs include the automation of repetitive tasks and clarity in operations, which are essential to ensure accuracy and efficiency;
- **Overall View and Management:** Represented by Lorena Saporì, the executive director of closed-end funds, who oversees all processes and seeks to optimize operational efficiency and avoid errors. Her perspective is crucial to ensure that the implemented solutions meet the company's strategic objectives.

Name	Age	Position	Behaviors and Habits	Pain Points and Frustrations	Needs and Goals
Lorena Saporì	32 years old	Executive Director of Closed-End Funds	<ul style="list-style-type: none"> • Hobbies: Running • Likes: Detailed planning and quick results • Dislikes: Project delays 	<ul style="list-style-type: none"> • Delays in deliveries • Inefficient work processes • Resistance to change within the team 	<ul style="list-style-type: none"> • Operational efficiency • Process optimization • Avoiding operational errors
Olivia Buoro	26 years old	Offerings Analyst	<ul style="list-style-type: none"> • Hobbies: Tennis • Likes: Tools that facilitate work • Dislikes: Very tiring tasks 	<ul style="list-style-type: none"> • Lack of attention in information registration • Disorganized information tracking of offerings 	<ul style="list-style-type: none"> • Quick and practical access to important daily information • Optimization in the offerings filling process (avoiding the filling of fields that could be automated)
Aline Bacalhau	28 years old	Settlement Analyst	<ul style="list-style-type: none"> • Hobbies: Cooking • Likes: Well-defined processes • Dislikes: Slow systems 	<ul style="list-style-type: none"> • Need for technical intervention for daily activities • Lack of knowledge about her own tools 	<ul style="list-style-type: none"> • Better control over the progress of capital calls (detailed information on the amount integrated) • Clarity and speed in task execution (preferably with fewer clicks and steps, considering the work involves risks and is sensitive due to dealing with money, and respecting the TED settlement time)

Table 1 – Persona

These personas help to better understand the different user profiles and create solutions that meet their specific needs, ensuring a better experience and efficiency in using the system.

1.1.2 Current Process Flowchart

It is essential to document the processes currently performed in the system that lead to the screens to be modified, in order to analyze the possibilities for improvement not only in the screen itself but in everything that surrounds it.

1.1.2.1 Offerings Registration

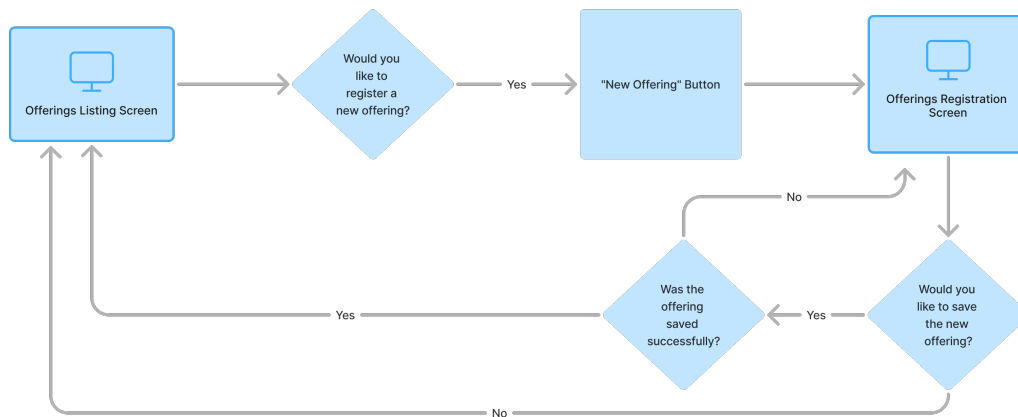


Figure 1 – Offerings Registration's current process flowchart

The offerings registration process begins on the offerings listing screen, where all offerings are displayed in a table without distinction by fund. The user can add a filter by fund using a selector, if preferred. If it is necessary to create an offering, the user can access the registration screen by clicking the "New Offering" button located at the top right corner of the listing screen. After filling in all the required fields and successfully saving the offering, the user is automatically redirected to the offerings listing screen, which does not retain the fund filter.

1.1.2.2 Shareholders by Capital Call Screen

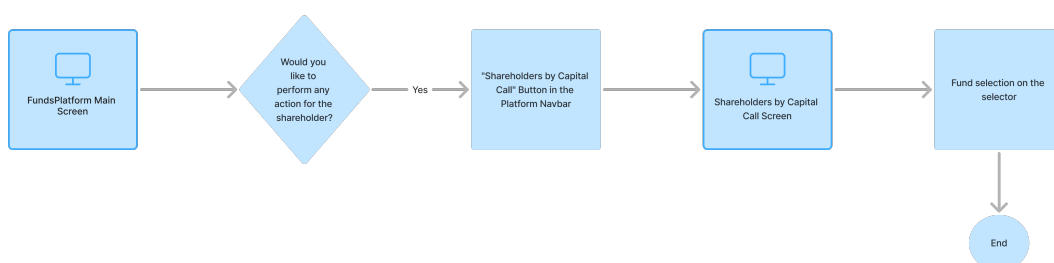


Figure 2 – First Shareholders by Capital Call Screen's current process flowchart

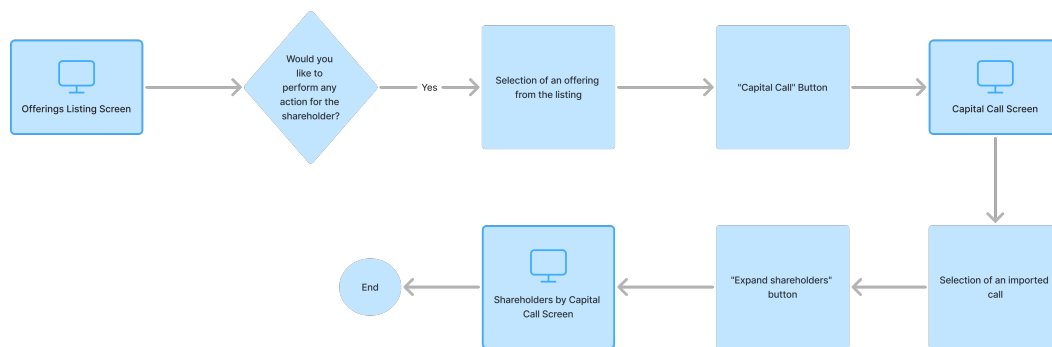


Figure 3 – Second Shareholders by Capital Call Screen's current process flowchart

There are two possible ways to access the Shareholders by Capital Call screen.

The first way is through the platform menu. On the FundsPlatform home screen, the user must access the menu in the Passivo section and, within the Illiquid subsection, select the Shareholders by Capital Call screen. When accessing the screen this way, it is necessary to select the fund using the selector, and the latest offering and call for that fund are automatically selected for displaying contributions.

The second way is direct access through the capital call. From the offerings screen, the user selects an offering from the listing and then clicks the capital calls button. The user then selects one of the already imported calls and clicks the expand shareholders button. This way, the Shareholders by Capital Call screen is displayed with the selectors already filled in.

1.1.2.3 Identified problems

A recurring problem identified in these flows is the lack of persistence of the selected fund. In all these flows, when returning to the offerings listing screen, the selected fund is not retained. This requires the user to select the fund again if they made a mistake in choosing the offering, resulting in rework and loss of time.

To improve these processes, it is essential to implement the persistence of the selected fund when navigating between screens, thus avoiding the need for rework. For example, when registering a new offering and returning to the offerings listing, it would be ideal for the previously selected fund in the registration to remain active. This would allow the user to quickly confirm the information of the newly registered offering and proceed with other actions related to that offering without needing to select the fund again. This improvement would not only save time but also increase the efficiency and accuracy of the operations performed in the system. For the

Shareholders by Call screen, there are two possible paths: directly to the screen through the platform menu or through the specific capital call that needs to be detailed.

1.1.3 Mapping the Current User Journey

A user journey map is a visual representation that describes the steps a user takes when interacting with a product or service, from the first contact to the achievement of their goals. It details the user's actions, emotions, and touchpoints throughout this journey, helping to identify opportunities for improvement and points of frustration. The importance of a user journey map lies in its ability to provide a holistic view of the user experience, allowing development, design, and business teams to better understand users' needs and expectations. This facilitates the creation of more effective solutions aligned with users' goals, resulting in a more satisfying and efficient experience.

1.1.3.1 Offerings Registration

Journey phases	Jobs to be done	Pains
General Offer Information	Filling in the fields for portfolio, offer type, dates (start and end), subscription method, share type, and CUD in the offer value.	It is only possible to select the fund from the CGE. Date fields with error marking before filling.
CETIP Information	Filling in the asset, account, asset validity, and CETIP distributor, if necessary.	Date field with error marking before filling.
General Offer Information	Filling in the offer value, entry fee type, distributor and coordinator, number and issue price, as well as other optional information.	Important information being interrupted by CETIP fields, breaking the flow. Optional fields among mandatory fields.
CVM Information	Filling in CVM information (registration number and fee, and process number), observation field, and days for integration and waiver, if it is a capital call offer type.	The observation field interrupts the flow by being in the middle of the fields instead of at the end. The CVM fields are not grouped in a single location on the form.
Field Validation	Upon completing each entry, the field is validated, for example, mandatory fields must be filled in.	It is necessary to complete the field entry and unfocus it to obtain validation; it could occur in real-time.
Registry	Completion of the offer registration via the register button.	-

Table 2 – Offerings Registration's current user journey

Opportunities for addressing the issues are:

- Load all funds into the selector options and allow searches by CGE, fund name, or document. This facilitates the search for a value that is more familiar to the user than the CGE;
- Section the fields by topic to create a logical flow, ensuring that the fields are filled out smoothly;
- Perform real-time validation of the fields.

1.1.3.2 Shareholders by Capital Call Screen

Journey phases	Jobs to be done	Pains
Contribution Selection	Selection of the contribution in the listing.	When performing an action, the selection does not work even though the contributions are visually selected; it is necessary to select them again.
Action Selection	Possibility to select among the actions: email editing, display of financial receipts, listing of fund orders, sending receipt, manual confirmation, movement confirmation, and contribution closure.	None of the actions have titles, only icons, which can confuse the user.
Performing the action	When clicking on the action, the following can be performed: Email editing: Add, delete, or edit an email, and also download the email template sent as a capital call notice. Financial receipt: Validate the receipt data and select one for detailed viewing using the button in the table. List of generated fund orders: Validate the data of the fund orders generated in the contribution. Sending receipt: Select the sender's email and confirm or cancel the sending. Manual confirmation, movement confirmation, and contribution closure: confirm or cancel the action.	Email editing: the download button does not have a title, which can confuse the user about its meaning. Additionally, it is not in an intuitive location. Financial receipt: the action for detailing the receipt is not in an intuitive location, causing the user to be unaware of its existence. List of generated fund orders: the reason column, which shows the reasons for canceling a fund order, is not always populated when there is a cancellation.
Action Validation	The final validations for each action are: Email editing: check if the editing was done correctly or verify the download. Financial receipt: verify the accuracy of the receipt detail information. Sending receipt: monitor the sending status through the contribution listing. Manual confirmation, movement confirmation, and contribution closure: monitor the contribution status through the contribution listing.	Sending receipt: the statuses do not represent all stages of the sending process.

Table 3 – Shareholders by Capital Call screen's current user journey

Opportunities for addressing the issues are:

- Resolve the bug in the selection of checkboxes, allowing for an error-free experience;
- Add titles to all actions so that their intent is clear to the user;
- Map all reasons for cancellation to ensure proper feedback;
- Enhance the tracking of receipt submission.

1.1.4 Value Proposition Canvas

A Value Proposition Canvas is an essential visual tool that helps define and communicate the value a product or service offers to customers. It is divided into two main parts: the Customer Profile, which identifies the customers' tasks, pains, and gains, and the Value Map, which describes how the products and services alleviate these pains and generate gains. Its importance lies in providing clarity and focus, team alignment, identification of opportunities for innovation and differentiation, validation of ideas, and support for continuous improvement. This ensures that the development of solutions is always aligned with the customers' needs and expectations, increasing the chances of success in the market.

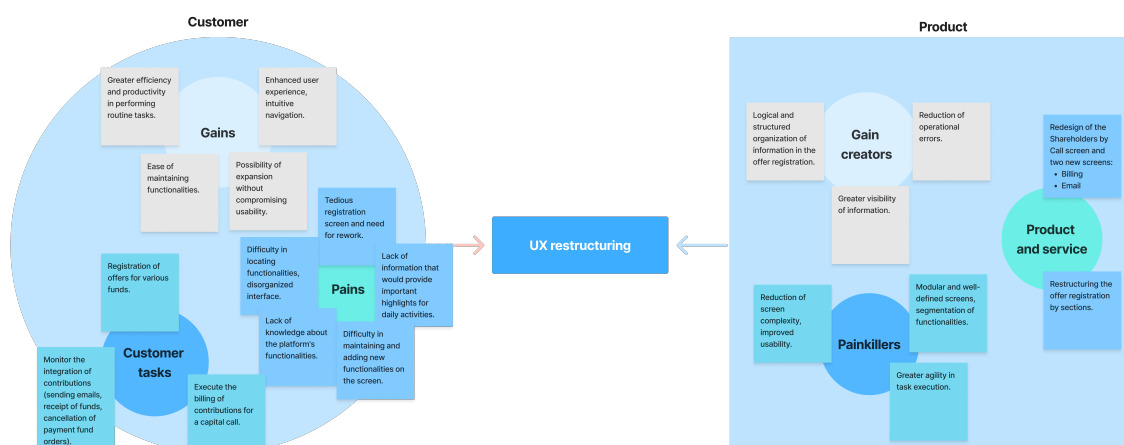


Figure 4 – Value Proposition Canvas

1.1.4.1 Customer Section

Customer Tasks:

- Monitor the integration of contributions (sending emails, receipt of funds, cancellation of payment fund orders);
- Execute the billing of contributions for a capital call;

- Registration of offers for various funds.

Pains:

- Difficulty in locating functionalities, disorganized interface;
- Lack of knowledge about the platform's functionalities;
- Tedious registration screen and need for rework;
- Lack of information that would provide important highlights for daily activities;
- Difficulty in maintaining and adding new functionalities on the screen.

Gains:

- Greater efficiency and productivity in performing routine tasks;
- Ease of maintaining functionalities;
- Possibility of expansion without compromising usability;
- Enhanced user experience, intuitive navigation.

1.1.4.2 Product Section**Product and service:**

- Redesign of the Shareholders by Call screen and two new screens:
 - * Billing;
 - * Email.
- Restructuring the offer registration by sections.

Painkillers:

- Reduction of screen complexity, improved usability;
- Modular and well-defined screens, segmentation of functionalities;
- Greater agility in task execution.

Gain creators:

- Logical and structured organization of information in the offer registration;
- Reduction of operational errors;
- Greater visibility of information.

2

Solution planning

2.1 Detailed submission plan

2.1.0.1 Implementation plan

The primary objective of this project is to design and plan an interface that provides the optimal user experience, focusing on user needs and best usability practices. The screens analyzed for improvement are: the offer registration form and the capital call screen for shareholders.

The project will be developed iteratively, addressing the following three goals:

- **Understand the problem:** Through understanding the user, their pain points and needs, identifying practices that violate usability heuristics, and detailing all user actions on the studied screen, we can identify improvement opportunities.
- **Plan the solution:** With well-defined objectives, it is possible to establish the approach to problem-solving and the metrics that determine if the objectives have been achieved. These will be defined in this sprint.
- **Validate the solution:** Finally, the solution can be implemented by defining a prototype with the new workflows and conducting user validation, followed by necessary adjustments.

2.1.0.1.1 Development Methodology

We opted for agile methodologies, specifically Scrum, to manage the project development iteratively and incrementally. Short development cycles (sprints) were defined, allowing for frequent reviews and adjustments based on user and stakeholder feedback. According to Sutherland and Sutherland ([Sutherland e Sutherland 2014](#)), Scrum is highly effective

in increasing productivity and reducing delivery time. The approach excels in improving product quality and customer satisfaction, promoting smoother communication, enabling quick adaptations to changes, and delivering value incrementally.

These goals will be addressed through various artifacts delivered in two-week sprints. For a better understanding of the division of artifacts throughout the project:

Sprint 2 - Problem understanding

- **Current User Journey Mapping:** Identifying critical points and opportunities for improvement.
- **Value Proposition Canvas:** Highlighting the expected benefits from the screen redesign.
- **Persona:** A fictional character representing a user type that might use a product or service.
- **Current Process Flowchart:** Detailing the operational workflow before the redesign.

Sprint 3 - Solution Mapping

- **Implementation Plan:** Detailing the technical and strategic roadmap.
- **Performance Indicators (KPIs):** To measure the impact of the redesign.
- **Success Metrics:** Defining objective parameters to validate the solution's effectiveness.
- **Project Justification:** Presenting the reasons for the redesign and the expected benefits.
- **Solution Architecture:** Specifying how the new structure will integrate with the existing system.
- **Non-functional Requirements:** Ensuring aspects such as performance, security, and scalability.

Sprint 4 - Wireframe and Validation

- **UI/UX Guidelines:** Establishing visual and user experience standards.
- **Empathy Map:** Understanding users' needs and expectations.
- **New Process Flowchart:** Illustrating the updated interaction flow.
- **User Stories:** Detailing the requirements from the user's perspective.
- **Functional Requirements:** Describing the expected behavior of the solution.
- **High-Fidelity Prototype:** Enabling realistic interface testing.
- **Usability Testing:** Evaluating the user experience before implementation.

- **Business Specification:** Thoroughly documenting the new workflows for user validation.

Sprint 5 - Final Presentation

- **Pitch of Module 1 Development:** Showcasing progress and key decisions.
- **Demonstration of New Workflows:** Highlighting the implemented improvements.
- **Roadmap of Next Steps:** Indicating future project phases.
- **Presentation of Collected Metrics:** Proving the effectiveness of the adopted solution.

2.1.0.1.2 Schedule

The following schedule should be followed for this project:

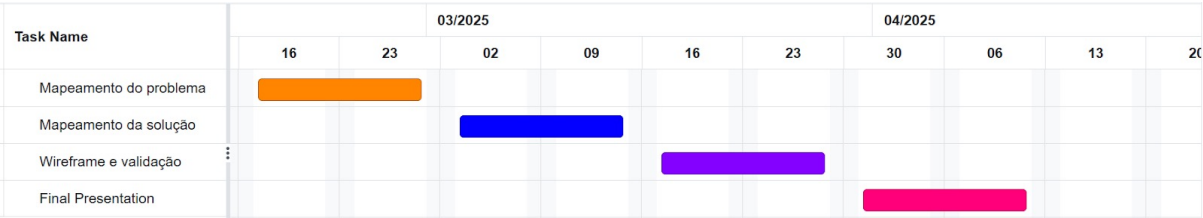


Figure 5 – Schedule

2.1.0.1.3 Resources

The resources to be used for the restructuring development include:

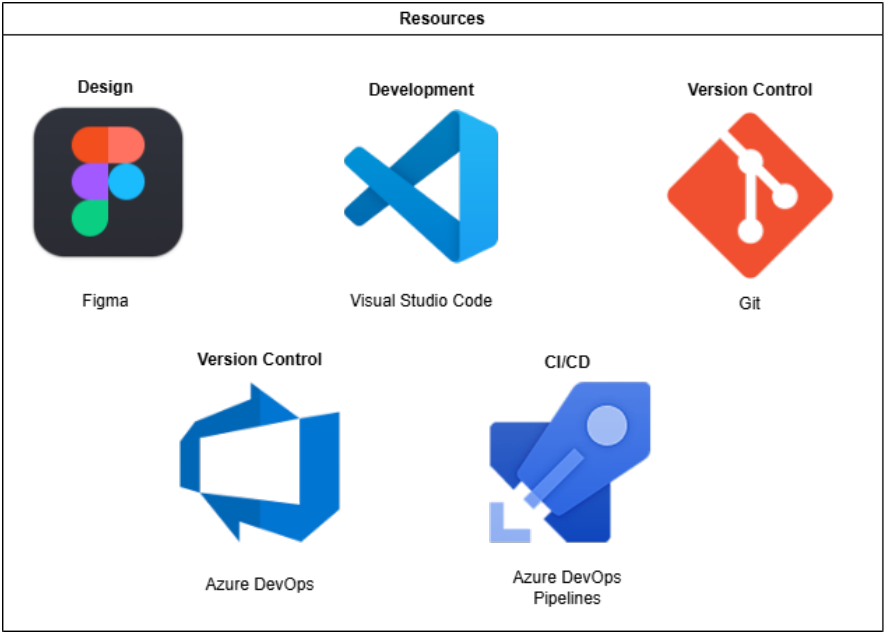


Figure 6 – Resources

- **Design:** Figma, a web-based design tool used for creating user interfaces and prototypes. It offers powerful features for design and prototyping, enhancing workflow efficiency;
- **Development:** Visual Studio Code, a powerful, open-source code editor developed by Microsoft, offering features like debugging, syntax highlighting, and version control integration;
- **Version Control:** Git, a distributed version control system that tracks changes in source code during software development, enabling collaboration and version management, and AzureDevOps, a suite of development tools by Microsoft that supports CI/CD, project management, and collaboration, enhancing software development workflows;
- **CI/CD:** AzureDevOps Pipelines, a CI/CD service within Azure DevOps that automates the building, testing, and deployment of applications, ensuring efficient and reliable delivery.

2.1.0.2 Performance indicators

Key Performance Indicators (KPIs) are measurable values that demonstrate how effectively a project or organization is achieving its key objectives. They are crucial in a project because they provide clear targets for teams to aim for, help track progress, and identify areas needing improvement. By regularly monitoring KPIs, project managers can make informed decisions, ensure alignment with strategic goals, and enhance overall performance. Essentially, KPIs serve as a vital tool for maintaining focus, accountability, and continuous improvement throughout the project's lifecycle.

The KPIs specified for this project are described in Table 4.

2.1.0.3 Project justification

To justify the UX restructuring project, it is essential to present quantitative data that highlights the benefits of implementing good UX practices and the drawbacks of poor UX practices. This information provides a clear rationale for the project by demonstrating how specific improvements can enhance user satisfaction, efficiency, and overall experience. The following points outline key metrics and insights that support the need for UX enhancements:

- **Auto-Fill and Smart Defaults:** Implementing auto-fill and smart defaults can reduce the time taken to complete forms (Team 2023).
- **User-Friendly Design:** Forms designed with user experience in mind can increase user satisfaction scores (Stevens 2025).

Type	Definition	Target
User Satisfaction	Establish a target NPS score to evaluate the success of the UX restructuring.	Achieve an NPS score of 50 or higher, indicating strong user satisfaction and loyalty.
Task Completion	Percentage of users who successfully complete the assigned tasks.	Achieve a task completion rate of 90% or higher.
Click Analysis	Measure the concentration of user clicks on different areas of the wireframe.	Ensure that misclicks constitute a maximum of 10% of the clicks on the tasks.
Form Efficiency	Time taken to create an offer.	Ensure the time taken to create a new offer through the form is under 5 minutes.
Form Accuracy	Number of offers registered without errors.	Reduce the number of offers registered with errors by 50%.
User Engagement	Percentage of active users interacting with the new screens.	Increase the user engagement rate by 25%. (Total actions)
Performance	Page performance score.	Increase the page performance score to 90 points.
User Frustration	Total frustrations.	Reduce total frustrations by 70% in the first month of interaction with the page.
Error Reduction	Total errors.	Reduce total errors by 70% in the first month of interaction with the page.

Table 4 – KPIs

- **Sortable and Filterable Tables:** Implementing sortable and filterable tables can reduce the time taken to find specific data ([Solutions 2024](#)).
- **Consistent Design:** Consistent design elements can improve user navigation and reduce confusion ([Solutions 2023](#)).
- **Complex Forms:** Forms with too many fields or unclear instructions can lead to abandonment rates ([Team 2023](#)).
- **User Understanding:** Clear and concise error messages can improve user understanding and resolution rates ([Solutions 2023](#)).
- **Reduced Frustration:** Proper error messages can reduce user frustration ([Solutions 2023](#)).
- **User Motivation:** Positive reinforcement for successful actions can increase user motivation and engagement ([Solutions 2023](#)).

These insights underscore the importance of adhering to best practices in UX design to achieve better outcomes and justify the investment in the UX restructuring project.

2.2 Non-functional requirements

Non-functional requirements (NFRs) are specifications that define the quality attributes, performance, and constraints of a system, rather than its specific behaviors or functionalities. They encompass aspects such as performance, usability, reliability, security, and maintainability. NFRs are crucial because they ensure that the system meets user expectations and operates efficiently under various conditions. They help in creating a robust, scalable, and user-friendly system by addressing critical factors like response time,

ease of use, and data protection. By setting clear NFRs, developers can build systems that not only function correctly but also provide a positive and consistent user experience, ultimately leading to higher user satisfaction and system reliability.

Requirement	Type	Title	Description
NFR001	Usability	Form Validation	Implement real-time form validation to prevent errors before form submission.
NFR002	Usability	Field Grouping	Group related form fields together and use clear headings to improve readability.
NFR003	Usability	User-Friendly Error Messages	Provide clear and concise error messages that help users understand and resolve issues.
NFR004	Usability	Filter and Search	Provide filtering and search capabilities to help users quickly find specific data.
NFR005	Usability	Form Progress	Provide a progress indicator for multi-step forms.
NFR006	Maintainability	Component-Based Architecture	Use a component-based architecture to facilitate easier updates and maintenance.
NFR007	Maintainability	Documentation	Provide thorough documentation for the frontend codebase to assist developers in maintaining and extending the UI.
NFR008	Compatibility	Cross-Platform Support	The application should be compatible with various devices and browsers to ensure accessibility for all users.

Table 5 – Non-Functional Requirements

2.3 Architecture

The architecture of a software project refers to the high-level structure of the system, defining how different components interact with each other. It includes the design principles, patterns, and guidelines that dictate the organization and integration of the software components.

To explain this architecture, we will use several diagrams:

- **Package Diagram:** This diagram shows the organization of the system into packages or modules. It illustrates the dependencies between different packages, helping to understand the modular structure of the software.
- **Physical Diagram:** Also known as a deployment diagram, this diagram depicts the physical arrangement of hardware and software components. It shows where each component will be deployed in the physical environment, such as servers, databases, and network nodes.

- **Use Case Diagram:** This diagram represents the interactions between users (actors) and the system. It outlines the various use cases or functionalities that the system provides, showing how users will interact with the software to achieve their goals.

These diagrams together provide a comprehensive view of the software architecture, covering both the logical and physical aspects of the system.

2.3.1 Package diagram

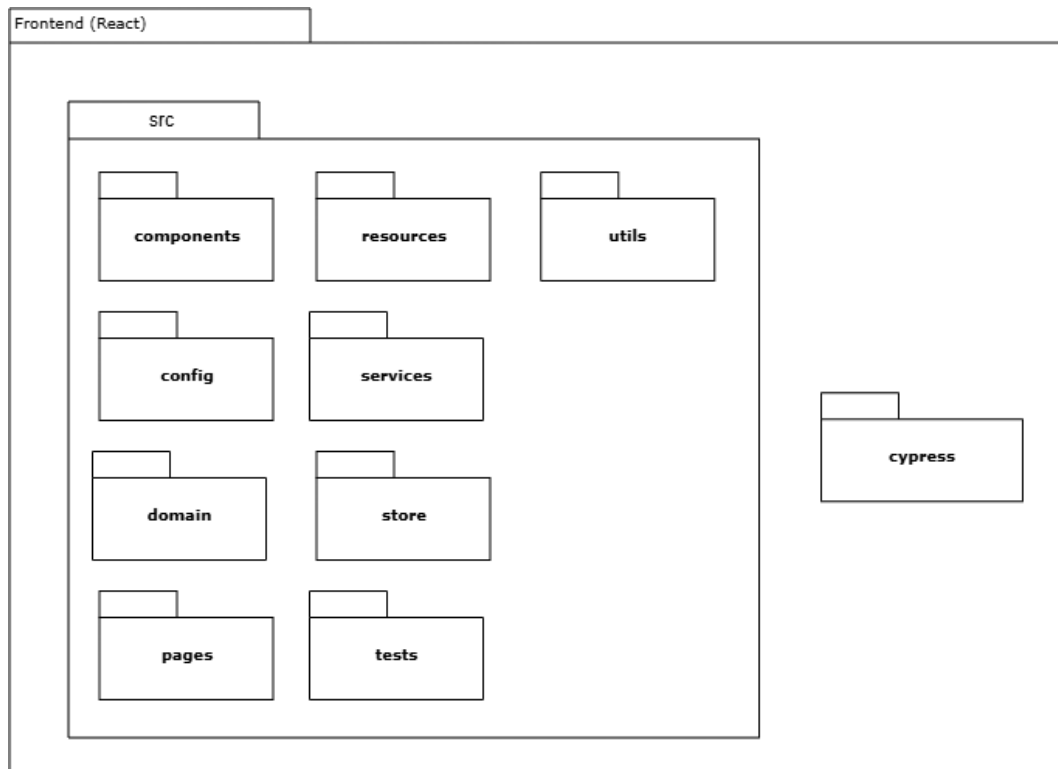


Figure 7 – Package diagram

The frontend of the application, developed in React, follows a modular organization, with the source code structured as follows:

- **cypress:** Configuration of the Cypress framework for component testing.
- **src:** Main directory containing all interface functionalities.
 - * **components:** Stores reusable user interface components, such as buttons, modals, and forms.
 - * **resources:** Contains static resources like images, icons, and fonts.
 - * **utils:** Houses utility functions and helper methods used throughout the application.

- * **domain:** Defines the core business logic and domain models of the application.
- * **services:** Contains functions responsible for communication with the backend, making HTTP requests.
- * **config:** Folder dedicated to general configurations, such as environment variables and API settings.
- * **store:** Manages the global state of the application using tools like Redux or Context API, allowing data sharing between components.
- * **pages:** Directory responsible for the different pages or screens of the application, such as the login screen and the dashboard.
- * **tests:** Directory where the application's automated tests are located.

2.3.2 Physical diagram

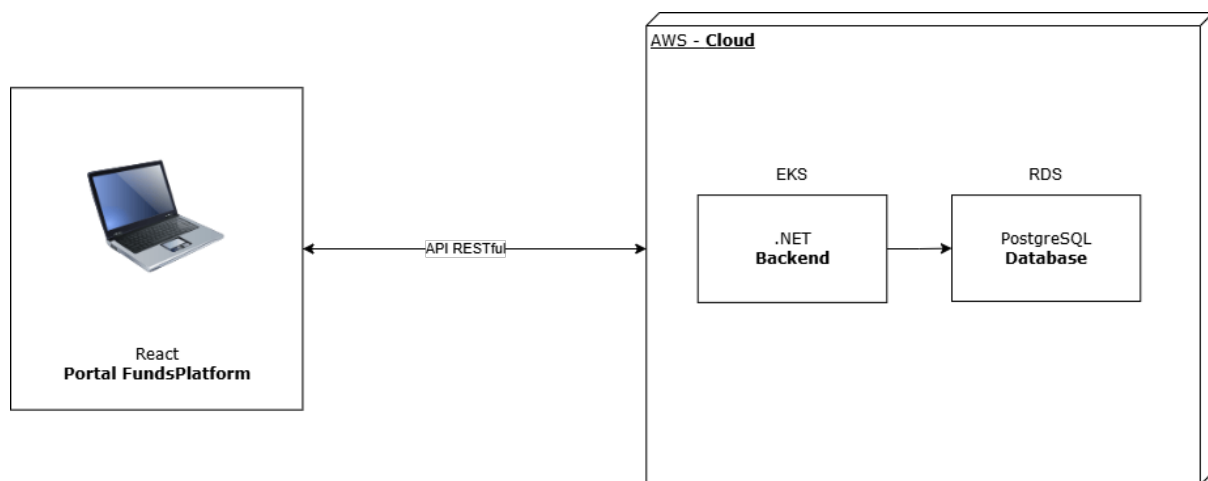


Figure 8 – Physical diagram

2.3.3 Use cases

For the construction of the use cases, it was decided to focus on the shareholders by capital call screen, due to its various functionalities that interact with other systems. However, the offer's form was not included, as it is a more internal functionality that does not have contact with external systems.

2.3.3.1 Settlement use cases

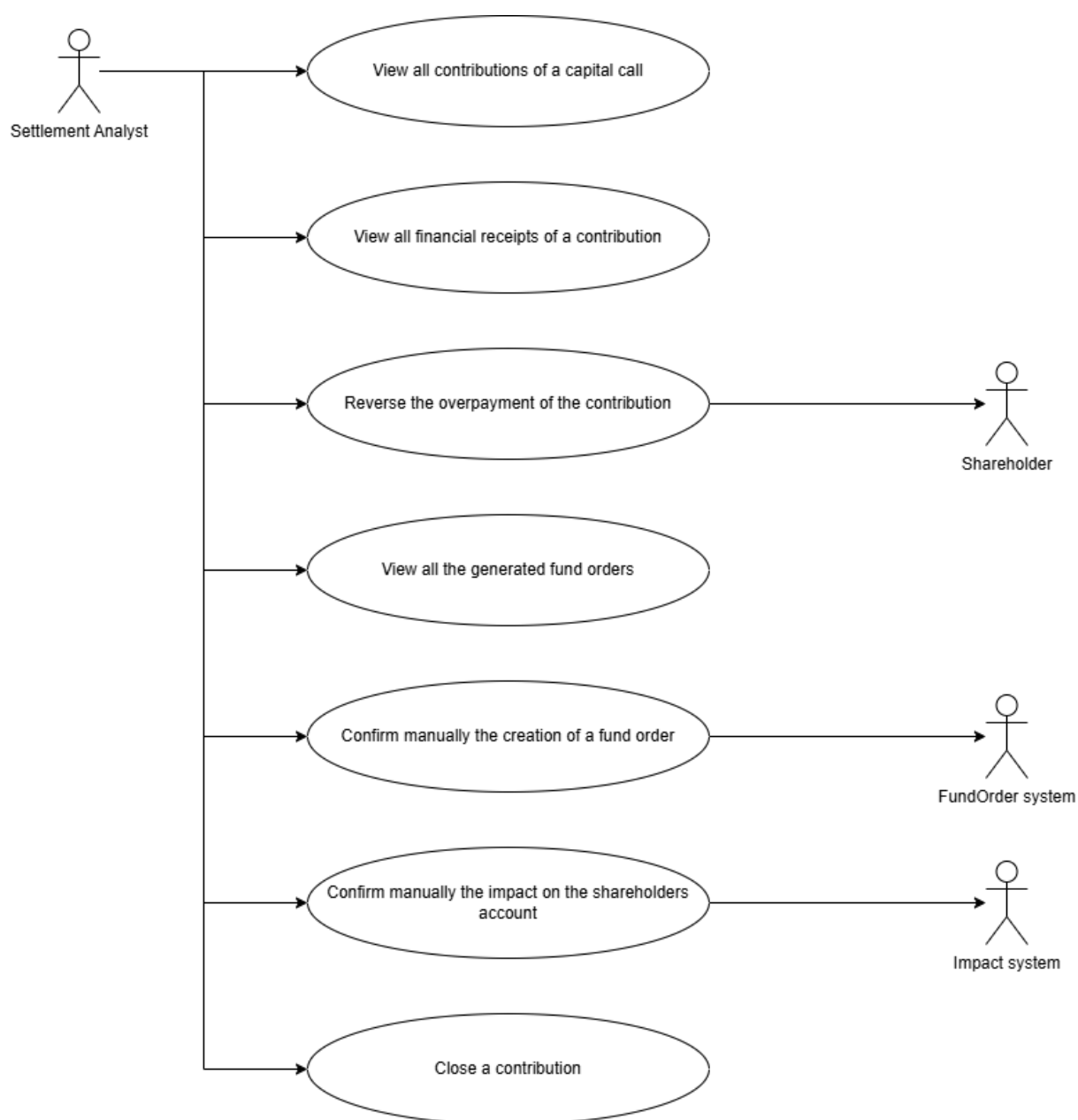


Figure 9 – Physical diagram

2.3.3.2 E-mail use cases

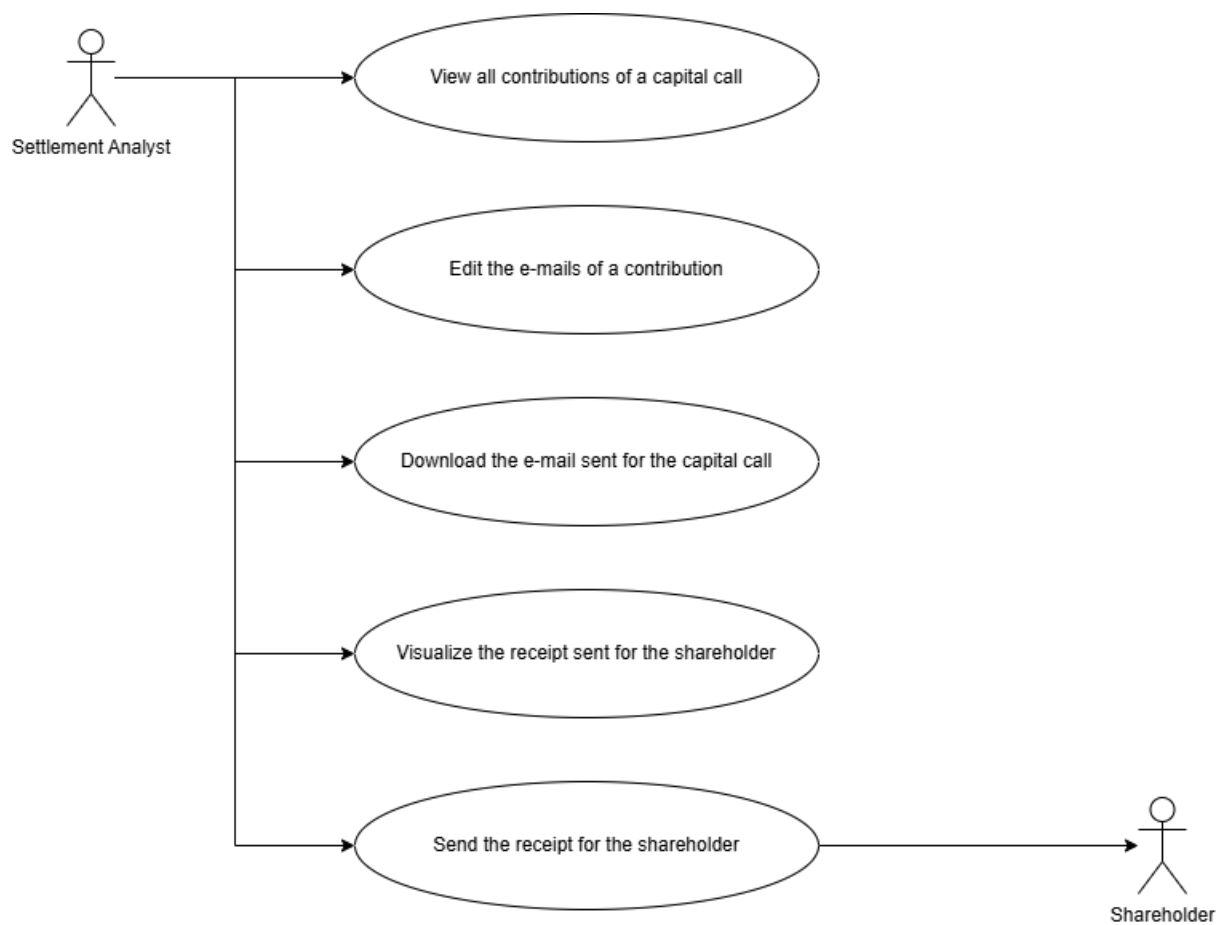


Figure 10 – Physical diagram

3

Creating and validating the new interface

3.1 User stories

User stories are short, simple descriptions of a feature or functionality from the perspective of the end user. User stories are important because they help development teams understand the needs and goals of users, ensuring that the product is designed with the user in mind. They promote collaboration, focus on delivering value, and facilitate prioritization, making it easier to plan and execute projects in an agile environment.

3.1.1 User Stories for Olivia Buoro (Offerings Analyst)

- **Fund Selector Enhancement:**

- * As Olivia, I want to search for funds using all familiar identifiers like CGE, fund name, or document so that I can quickly locate the correct fund without having to search for the CGE when I already know the fund's name.

- **Sectioned Fields:**

- * As Olivia, I want the fields in the offerings registration form to be grouped by topic, reducing the time spent on registration.

- **Real-Time Validation:**

- * As Olivia, I want the system to validate form fields as I fill them out so that I can immediately correct any errors, ensuring the accuracy of the information entered.

- **Persistent Fund Selection:**

- * As Olivia, I want the selected fund to remain active when I navigate between screens so that I don't have to reselect the fund, saving time and reducing frustration.

- **Enhanced User Interface:**

- * As Olivia, I want the offerings registration screen to clearly separate mandatory fields from optional ones so that I can focus on the required information without unnecessary interruptions.

3.1.2 User Stories for Aline Bacalhau (Settlement Analyst)

- **Checkbox Selection Bug Fix:**

- * As Aline, I want the checkbox selection to work correctly so that I can select contributions without having to reselect them, ensuring a smooth workflow.

- **Action Titles:**

- * As Aline, I want clear titles for all actions on the Shareholders by Capital Call screen so that I can easily understand and choose the correct action, reducing confusion.

- **Enhanced Tracking of Receipt Submission:**

- * As Aline, I want detailed statuses for each stage of the receipt submission process so that I can accurately monitor the progress and ensure successful completion.

- **Detailed Information Display:**

- * As Aline, I want comprehensive data on the amount integrated in capital calls so that I can perform my tasks with clarity and reduce the need for technical intervention.

- **Intuitive Action Locations:**

- * As Aline, I want action buttons to be placed in intuitive locations so that I can easily access and perform the necessary actions without confusion.

3.1.3 User Stories for Lorena Saporì (Executive Director of Closed-End Funds)

- **Operational Efficiency:**

- * As Lorena, I want optimized work processes so that I can avoid delays and ensure timely delivery of tasks, enhancing overall operational efficiency.

- **Process Optimization:**

- * As Lorena, I want the implemented solutions to align with the company's strategic objectives so that we can achieve our goals and improve performance.

- **User-Friendly Design:**

- * As Lorena, I want modular and well-defined screens that segment functionalities logically so that I can oversee and manage operations more effectively.

– **Visibility of Information:**

- * As Lorena, I want key data to be prominently displayed and easily accessible so that I can quickly reference and make informed decisions.

3.2 Functional requirements

Functional requirements are specific, detailed descriptions of the actions, behaviors, or functions a system must be able to perform. They define what a system should do, including inputs, processes, and outputs. These requirements are important because they provide clear guidelines for developers to build the system, ensuring that all necessary features are implemented correctly. They help in aligning the development with user needs, ensuring the system performs as expected and meets business objectives. Functional requirements also serve as a basis for testing and validation of the product.

Requirement	Type	Title	Description
FR001	Bug Fix	Checkbox Selection Bug Fix	Resolve the bug in the selection of checkboxes. Fix the underlying issue causing the selection bug. Ensure that once Aline selects contributions, the selection is retained and does not require re-selection.
FR002	Enhancement	Fund Selector Enhancement	Implement a fund selector that allows searches by CGE, fund name, or document. The fund selector should support autocomplete functionality and display matching results as Olivia types. It should also allow filtering by different criteria (CGE, fund name, document).
FR003	Enhancement	Sectioned Fields	Section the fields by topic to create a logical flow. Group related fields together under clear headings (e.g., General Offer Information, CETIP Information, CVM Information). Ensure that each section is visually distinct and logically ordered.
FR004	Enhancement	Real-Time Validation	Implement real-time validation of form fields. As Olivia fills out each field, the system should immediately validate the input and provide instant feedback (e.g., highlighting errors, displaying validation messages).
FR005	Enhancement	Persistent Fund Selection	Ensure the selected fund persists when navigating between screens. Implement session storage or similar mechanism to remember the selected fund. When Olivia returns to the offerings listing screen, the previously selected fund should remain active.
FR006	Enhancement	Enhanced User Interface	Redesign the offerings registration screen to separate optional fields from mandatory ones. Ensure that mandatory fields are grouped together and optional fields are placed at the end or in a separate section. Use visual cues (e.g., different colors, icons) to distinguish between mandatory and optional fields.
FR007	Enhancement	Action Titles	Add titles to all actions on the Shareholders by Capital Call screen. Add descriptive titles to each action icon (e.g., "Edit Email," "View Financial Receipt"). Ensure that the titles are visible and easily readable.
FR008	Enhancement	Enhanced Tracking of Receipt Submission	Improve the tracking of receipt submission statuses. Implement detailed statuses for each stage of the receipt submission process (e.g., "Pending," "Sent," "Confirmed"). Display these statuses prominently on the screen.
FR009	Enhancement	Detailed Information Display	Provide detailed information on the amount integrated in capital calls. Display comprehensive data on contributions, including the amount integrated, dates, and any relevant notes. Ensure that this information is easily accessible and clearly presented.
FR010	Enhancement	Intuitive Action Locations	Place action buttons in intuitive locations. Place action buttons where Aline expects them to be, based on common usage patterns. Use visual cues (e.g., icons, colors) to highlight important actions.
FR011	Enhancement	User-Friendly Design	Redesign screens to improve usability and reduce complexity. Use a component-based architecture to design modular screens. Ensure that each screen has a clear and logical layout, with functionalities grouped together.
FR012	Enhancement	Visibility of Information	Enhance the visibility of important information. Highlight key data and ensure it is prominently displayed. Use visual cues (e.g., colors, icons) to draw attention to important information.
FR013	Enhancement	Error Reduction	Implement measures to reduce operational errors. Implement real-time validation, clear error messages, and automated error-checking mechanisms. Regularly review and address common sources of errors.
FR014	Optimization	Operational Efficiency	Optimize work processes to avoid delays. Implement streamlined workflows and automated processes. Use tools and technologies that reduce manual effort and speed up task completion.
FR015	Optimization	Process Optimization	Ensure that the implemented solutions meet the company's strategic objectives. Regularly review and optimize processes to align with the company's strategic objectives. Use metrics and KPIs to measure and improve performance.

Table 6 – Functional Requirements

3.3 UX/UI guidelines

An orchestra is composed of a group of musicians who come together with the goal of synchronizing a variety of different instruments, such as flutes, violins, drums, and guitars, to create a consistent and extraordinary sound.

This is also the objective of BTG's Design System Orquestra: to promote and facilitate teamwork so that the design is always delightful, efficient, and consistent.

Orquestra brings together reusable patterns and components that help create a consistent user experience and streamline the prototyping and development of the bank's digital products. In it is possible to find the Design Principles that guide the bank's design decisions and the guidelines for creating useful and accessible content that expresses our brand's personality.

Some of the fundamentals that are important for this project are:

3.3.1 Colors

3.3.1.1 Thinking in layers

In various editing software, layers are used to help build complex and detailed projects. Orquestra 2.0 employs this logic within the color system, where all positions are important. This assembly reasoning is crucial for the palettes of different BTG Pactual products, the White Labels, and the modes (Dark Mode and Light Mode) to function perfectly without the need for component alterations.

Below, three scenarios are listed in a simplified manner according to their complexity: basic, intermediate, and advanced, outlining how colors work within these sets of layers.

3.3.1.2 Overlay logic

Basic

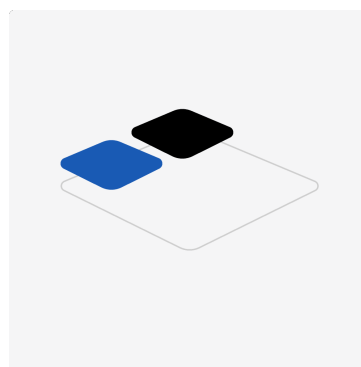


Figure 11 – Basic overlay

In Figure 11 there are three layers, one being the base color painting the first level of the layout under the background-base color token, and above, the overlay of text with emphasis-base-high and primary-base.

Intermediate



Figure 12 – Intermediate overlay

In Figure 12, a new base color (neutral-base) is added, which overlays the background-base—creating a separate area or section in the layout, for example. Above it, you can use the color categories Extended, Support, Emphasis, Primary, and Status.

Advanced

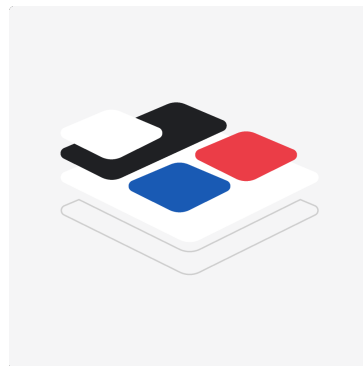


Figure 13 – Advanced overlay

In Figure 13, there are three layers with base colors: background-base, neutral-base, and above the latter, an element using inverse color—in cases where high contrast is needed—or a repetition of the neutral-base color accompanied by shadow (with elevation tokens).

The first base color of any project should always be background-base or background-base-inverse, and then proceed with other colors that can overlay. It is important to remember that only Emphasis colors do not have a specific order in positioning, as they are overlay colors on a base color. Therefore, the other colors must follow the construction logic to ensure the project is functional in Dark Mode and White Label.

3.3.1.3 State colors

A pattern is used for defining state colors that works within both modes and consists of using an overlay layer with some level of opacity. This way, the final color is obtained for creating the token for the states that use them: Hover, Pressed, and Disabled.

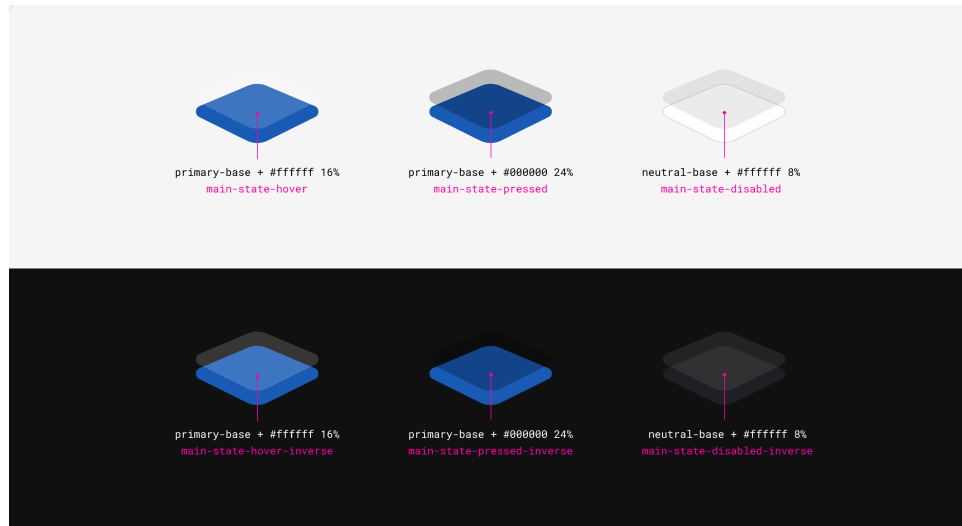


Figure 14 – State colors

The states of `:enabled`, `:focus`, and `:selected` have the same hexadecimal as the base color, so there is no need for a color overlay layer. The outline present in the `:focus` state is triggered by keyboard navigation and uses the tokens `outline-focus` and `border-stroke-heavy` as the stroke in the component.

3.3.2 Typography



Figure 15 – Moderat Font

The typography used in BTG’s products, as well as in its identity, is Moderat, a versatile family of geometric sans-serif fonts. Originally designed in 2015 and continuously developed since then, its low contrast, closed apertures, and various angular details define its distinctive characteristics.

Due to the corporate license, only regular, bold, light, and italic weights should be used in digital products. The other weights should be used only in print media.

3.3.2.1 Text properties

Text properties are the set of possible values and structures when working with labels, paragraphs, titles, etc. They are divided into: Text Decoration, Text Weight, Text Transform, and Line Height.

3.3.2.2 Text decoration

Text decoration deals with the accessory properties of text. Therefore, in addition to being used without any decoration (default), texts can be underlined (underline) or strikethrough (strikethrough).

Default

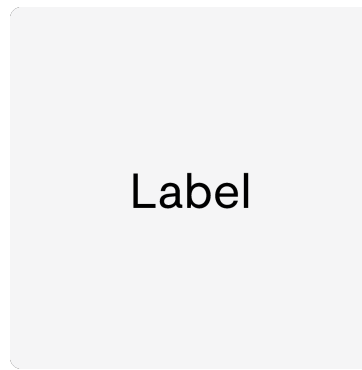


Figure 16 – Default

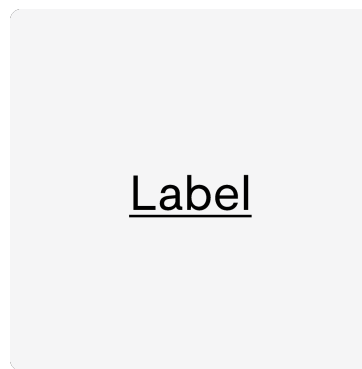
Underline

Figure 17 – Underline

Strikethrough

Figure 18 – Strikethrough

3.3.3 Spacing

This is a practical guide for the use of spacing in desktop applications. It is important to follow the guidelines presented here so that all projects have a unique visual standard.

3.3.3.1 Header

On all pages, the Header component will be present, and the body content starts from the Breadcrumb or another element, which may vary between projects. The content should always start with a spacing of 32px (spacing-inline-md).

3.3.3.2 Body

This section contains all the content between the Header and the Footer of the page.

3.3.3.3 Page Information

Some items are mandatory on pages to help users identify where they are. For this, we have some components that are important:

- * **Breadcrumb:** Composed of several links, it helps in navigation and identifying the path taken through the platform.
- * **Page Title:** Text to identify the current page.
- * **Page Description:** Text describing the page or what can be done on it.
- * **Banner:** May be related to a product offered by BTG or a function present on the page.

Following this order, the spacings to be used are:

- * **Breadcrumb and subsequent elements (Titles, Search Bar, etc.):** 24px (spacing-inline-sm)
- * **Title and Description:** 8px (spacing-inline-sm)
- * **Title and Banner:** 24px (spacing-inline-sm)
- * **Banner and First Section:** 40px

Not all components are mandatory to compose a page, but it is important to prioritize information that is essential for user identification.

3.3.3.4 Section

Sections of a page refer to the content presented on it. Whenever there is more than one section on the page, the spacing between them will always be 40px, except for the last section before the Footer.

Sections are composed of:

- * **Title:** Information to be presented.
- * **Description:** A description of the information to be presented.
- * **Content:** The content may vary in the number of columns used for the information. Whenever there is spacing, it is 24px following the Gutter defined in the project's Grid.

Following this order, the spacings to be used are:

- * **Title and Description:** 8px (spacing-inline-xxs)
- * **Description and Content:** 24px (spacing-inline-sm)
- * **Title and Content:** If the description is not part of it, the value remains 24px (spacing-inline-sm)

3.3.3.5 Footer

All content above this component must have a spacing of 80px.

3.4 Wireframe

A high-fidelity wireframe is a detailed and precise representation of a user interface (UI) design. Unlike low-fidelity wireframes, which are simpler and focus on the basic structure and layout, high-fidelity wireframes include detailed visual elements such as typography, colors, icons, and images. They closely resemble the final product, providing a clear visualization of how the interface will look when completed. The importance of high-fidelity wireframes lies in their ability to offer a realistic view of the design, facilitating communication between designers, developers, and stakeholders. They help identify and resolve usability and design issues before the development phase, saving time and resources. Additionally, these wireframes allow for more accurate usability testing, ensuring that the final product meets user expectations and delivers an optimized user experience (UX).

3.4.1 Offerings Registration

The main idea was to segment the extensive offer form into macro topics, thus creating three registration stages:

3.4.1.1 General

The screenshot shows the 'Cadastro de oferta' (Offer Registration) form in the btgactual system. The form is divided into several sections:

- Informações do portfólio:** Includes a toggle for 'Fundo Listado' and a search bar for 'Busque o cotista por conta, nome ou documento.'
- Informações principais da oferta:** Contains fields for 'Data início' (00/00/0000), 'Data fim' (00/00/0000), 'Tipo da oferta' (dropdown), 'Valor da oferta' (R\$ 00,00), 'Forma de subscrição' (dropdown), 'Tipo de cota' (dropdown), 'Número de emissão' (0), 'Preço de emissão' (R\$ 00,00), and 'Quantidade' (0).
- Informações de distribuidor e coordenador:** Includes fields for 'Distribuidor da oferta' (dropdown), 'CUD no valor oferta' (R\$ 00,00), 'Coordenador da oferta' (dropdown), and checkboxes for 'CUD por fora' and 'CUD por dentro'.
- Demais informações da oferta:** Contains fields for 'Tipo de taxa de ingresso' (dropdown), 'Valor da taxa de ingresso' (R\$ 00,00), 'Forma' (dropdown), 'Percentual Skin The Game' (dropdown), 'Dias de integralização' (0), 'Dias de walver' (0), and checkboxes for 'Dias úteis' and 'Dias corridos'.

The form is titled 'Cadastro de oferta' and has a progress bar at the top with three steps: 'Geral' (selected), 'CETIP', and 'CVM'. A 'Próximo' button is located at the bottom right.

Figure 19 – Offer Registration - General

This section will contain general information related to the offer, such as fund details, offer start and end dates, quota information, distributor and coordinator details, among others.

3.4.1.2 CETIP

The screenshot shows the 'Cadastro de oferta' (Offer Registration) form for CETIP settlement. The form is part of the 'btg pactual' system, with navigation tabs for 'Passivo', 'Distribuição', and 'Escrituração'. The user is logged in as 'Pedro Magalhães, Administrador'. The form is titled 'Cadastro de oferta' and shows a progress bar with three steps: 'Geral' (completed), 'CETIP' (current), and 'CVM' (pending). The 'Informações de CETIP' section contains the following fields:

Informações de CETIP	
Ativo CETIP	Conta CETIP
Ativo CETIP	Conta CETIP
Validade do ativo CETIP	Distribuidor CETIP
00/00/0000	Distribuidor CETIP

At the bottom, there are buttons for '< Voltar' and 'Próximo >'. The 'Próximo >' button is highlighted.

Figure 20 – Offer Registration - CETIP

If the offer involves settlement through CETIP, this section must be completed. It will include information about the asset, account, asset validity, and CETIP distributor. If the settlement is not through CETIP, this section can be skipped.

3.4.1.3 CVM

The screenshot shows the 'Cadastro de oferta' (Offer Registration) form for CVM settlement. The form is part of the 'btg pactual' system, with navigation tabs for 'Passivo', 'Distribuição', and 'Escrituração'. The user is logged in as 'Pedro Magalhães, Administrador'. The form is titled 'Cadastro de oferta' and shows a progress bar with three steps: 'Geral' (completed), 'CETIP' (completed), and 'CVM' (current). The 'Informações de CVM' section contains the following fields:

Informações de CVM		
Número de registro CVM	Número de processo CVM	Taxa de registro da oferta na CVM
0	0	R\$ 00,00

Below this, there is an 'Observações' section with a text area for 'Observação'. At the bottom, there are buttons for '< Voltar' and 'Confirmar ✓'. The 'Confirmar ✓' button is highlighted.

Figure 21 – Offer Registration - CVM

This section will be filled with information from the offer's registration with the Comissão de Valor Mobiliários, which is crucial for identifying the offer within

the regulatory body. This includes the registration number, process number, and registration fee. Additionally, as the final section, it will contain a field for any observations regarding the offer.

3.4.2 Shareholders by Capital Call Screen

To bring objectivity to each screen according to its main functionality, it was decided to create a content switcher where each tab will represent a functionality within the capital call section of the offer.

btgpactual < Contabilidade ▾ Regulatório ▾ Escrituração ▾ > ☆ 🔍 🔄 🔔 Pedro Magalhães Administrador ▾

🏠 Listagem de ofertas > FUNDO TESTE - Emissão 1

FUNDO TESTE - Emissão 1

Boletim de Subscrição Chamada de Capital

Gerar Boletagem Email

🔄 Mais filtros ⚙️ Download Template 📄 Nova Chamada

Para agrupar por uma coluna, clique sobre o nome dela e arraste para esta área.

Status da Chamada ▾	Status da Importação ▾	Status do Email da Chamada ▾	Número da Chamada ▾	Data Início ▾	Data Fim ▾	Wa
Finalizada	Concluído	Concluído	0	DD/MM/YYYY	DD/MM/YYYY	DD, ...
Finalizada	Concluído	Concluído	0	DD/MM/YYYY	DD/MM/YYYY	DD, ...
Finalizada	Concluído	Concluído	0	DD/MM/YYYY	DD/MM/YYYY	DD, ...
Finalizada	Concluído	Concluído	0	DD/MM/YYYY	DD/MM/YYYY	DD, ...
Finalizada	Concluído	Concluído	0	DD/MM/YYYY	DD/MM/YYYY	DD, ...

10 ▾ Linhas por página 1-20 de 300 < 1 2 3 4 5 ... 10 >

Figure 22 – Content switcher

The demonstrated screen is already implemented and contains a listing of existing capital calls for that offer. The planned modification includes the addition of the content switcher below the subscription bulletin and capital call tabs.

3.4.2.1 Billing section

btgpactual

Contabilidade Regulatório Escrituração

Pedro Magalhães Administrador

Listagem de ofertas > FUNDO TESTE - Emissão 1

FUNDO TESTE - Emissão 1

Boletim de Subscrição Chamada de Capital

Cadastro de chamada Boletagem Email

Chamada de capital 1 - 28/11/2024 a 29/11/2024

Para agrupar por uma coluna, clique sobre o nome dela e arraste para esta área.

	Múltipla Chamada	Status	Cotista	Segmento	Co-segmento	Tipo de Conta	Conta BTG	
<input checked="" type="checkbox"/>	2 chamadas	Cancelada	COTISTA TESTE	AM	PC	CORRENTE	000000000	...
<input checked="" type="checkbox"/>	Sem múltiplas	Cancelada	COTISTA TESTE	AM	PC	CORRENTE	000000000	...
<input type="checkbox"/>	2 chamadas	Cancelada	COTISTA TESTE	AM	PC	CORRENTE	000000000	...
<input type="checkbox"/>	2 chamadas	Cancelada	COTISTA TESTE	AM	PC	CORRENTE	000000000	...
<input type="checkbox"/>	2 chamadas	Cancelada	COTISTA TESTE	AM	PC	CORRENTE	000000000	...

Comprovante financeiro

Estorno

Lista de boletas geradas

10 Linhas por página

1-20 de 300

2 Linhas selecionadas

Confirmação manual

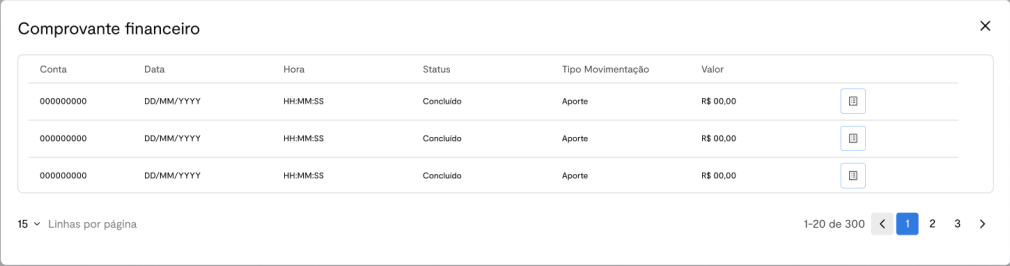
Confirmar movimentação

Fechamento de contribuição




Figure 23 – Billing section

In the billing tab, the information displayed will be focused on each investor within a call. To load the listing, it is necessary to select the call through the selector. In the investor listing, the main information for the bulletin of each investor will be presented, such as their status within the contribution, the amount sent by the investor, among others. Additionally, there will be a menu containing actions that can be performed individually for each investor and a checkbox for selecting investors to perform batch actions. For batch actions, upon selecting investors via the checkbox, a control panel will be displayed below with the available actions.

Financial receipt



The screenshot shows a modal window titled "Comprovante financeiro" with a close button (X) in the top right corner. Inside the modal is a table with the following columns: Conta, Data, Hora, Status, Tipo Movimentação, and Valor. The table contains three rows of data, each with a small icon in the last column. Below the table, there is a pagination control showing "15 Linhas por página" and "1-20 de 300" with page numbers 1, 2, and 3, where 1 is the active page.

Conta	Data	Hora	Status	Tipo Movimentação	Valor	
000000000	DD/MM/YYYY	HH:MM:SS	Concluído	Aporte	R\$ 00,00	
000000000	DD/MM/YYYY	HH:MM:SS	Concluído	Aporte	R\$ 00,00	
000000000	DD/MM/YYYY	HH:MM:SS	Concluído	Aporte	R\$ 00,00	

15 Linhas por página

1-20 de 300 < 1 2 3 >

Figure 24 – Financial receipt list

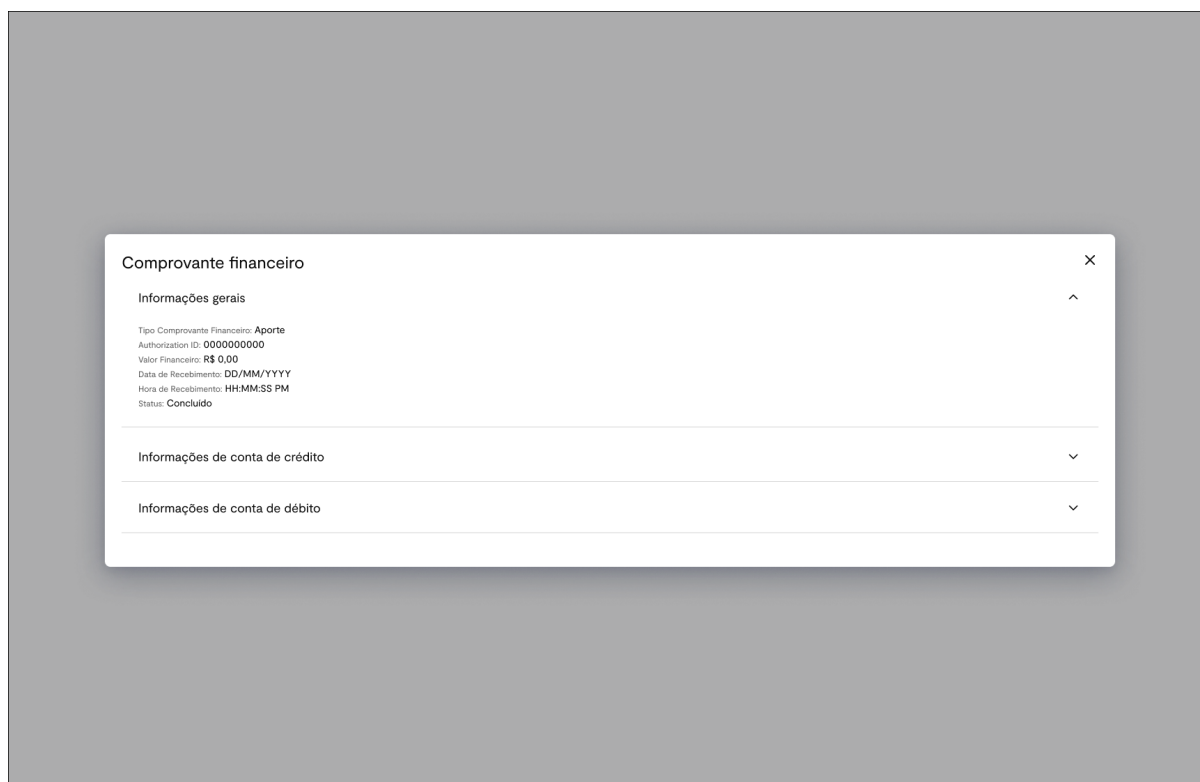


Figure 25 – Financial receipt detailed

The financial receipts listing will display all transactions made by the investor to the fund account. It will include details such as date, account, and amount for each transaction. Additionally, it will be possible to access detailed information about a specific transaction through an action in the listing, which will open a screen with the transaction's general data, the sending account, and the receiving account.

Reverse overpayment

Estorno

Fundo: FUNDO TESTE Cotista: COTISTA TESTE Valor: R\$ 0,00

	Cod. Banco	Agência	Conta	Titular
Conta de Débito	000	0000	0000000000	COTISTA TESTE
Conta de Crédito	000	0000	0000000000	FUNDO TESTE

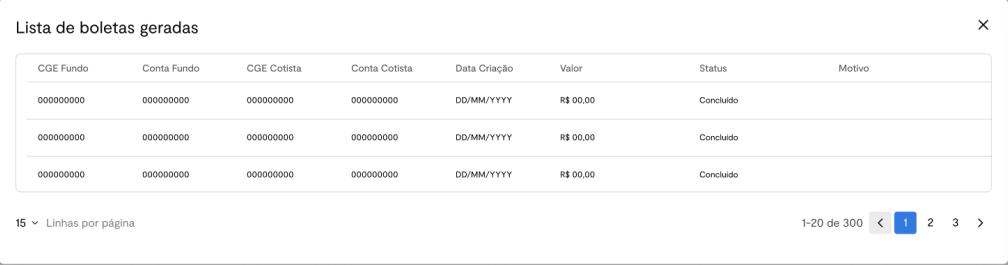
Justificativa: Justificativa

Voltar Confirmar

Figure 26 – Reverse overpayment

The reverse payment screen will show information about the contribution, such as fund, account, and amount. It will also display details of the transaction carried out during the reversal, including the fund's banking information that will send the money back to the investor's account as a refund. The credit account information can be edited through a table, and a justification for the reversal must be provided.

Generated fund orders



CGE Fundo	Conta Fundo	CGE Cotista	Conta Cotista	Data Criação	Valor	Status	Motivo
000000000	000000000	000000000	000000000	DD/MM/YYYY	R\$ 00,00	Concluído	
000000000	000000000	000000000	000000000	DD/MM/YYYY	R\$ 00,00	Concluído	
000000000	000000000	000000000	000000000	DD/MM/YYYY	R\$ 00,00	Concluído	

15 Linhas por página

1-20 de 300 < 1 2 3 >

Figure 27 – Generated fund orders list

To convert the money sent by the investor into fund units, billing must be performed. This process generates fund orders that document the investments made in that fund. To track the generation of these fund orders, there is a listing that displays the status of each fund order.

Manual confirmation

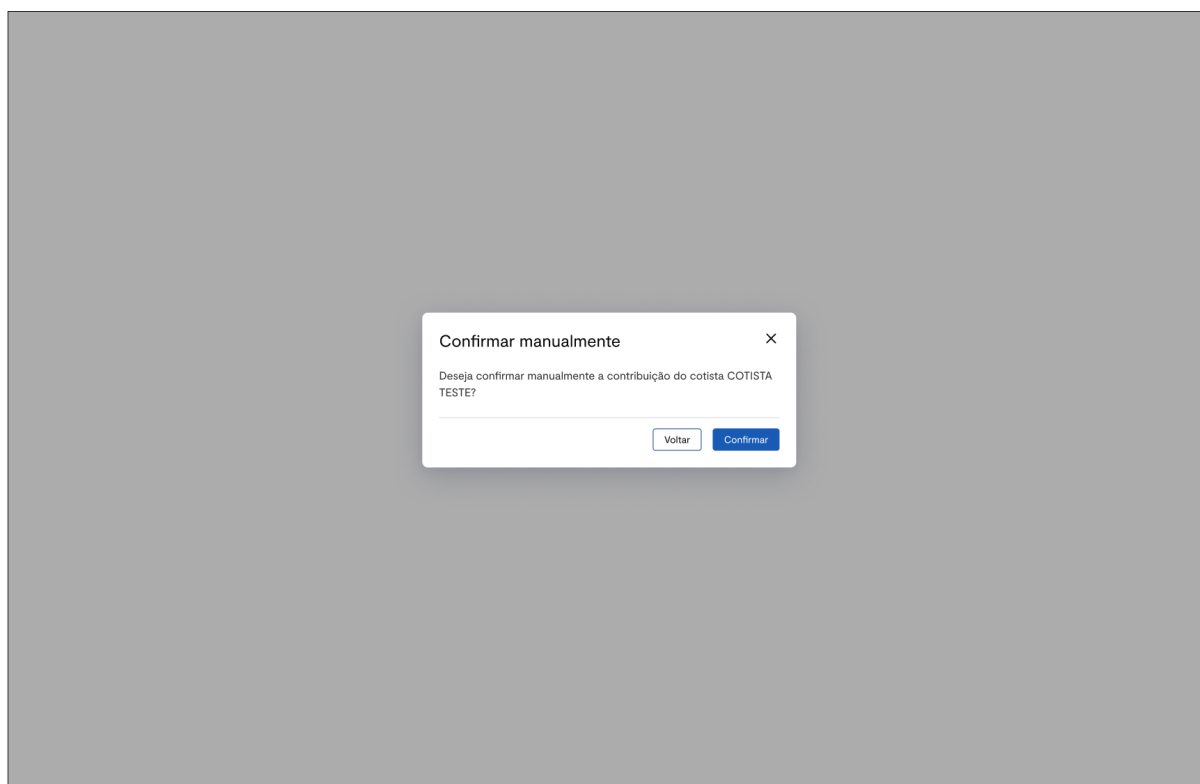


Figure 28 – Manual confirmation

To create the fund order, the user must perform manual confirmation, initiating the billing process that can be monitored through the investor's status and the generated fund orders listing.

Manual impact confirmation

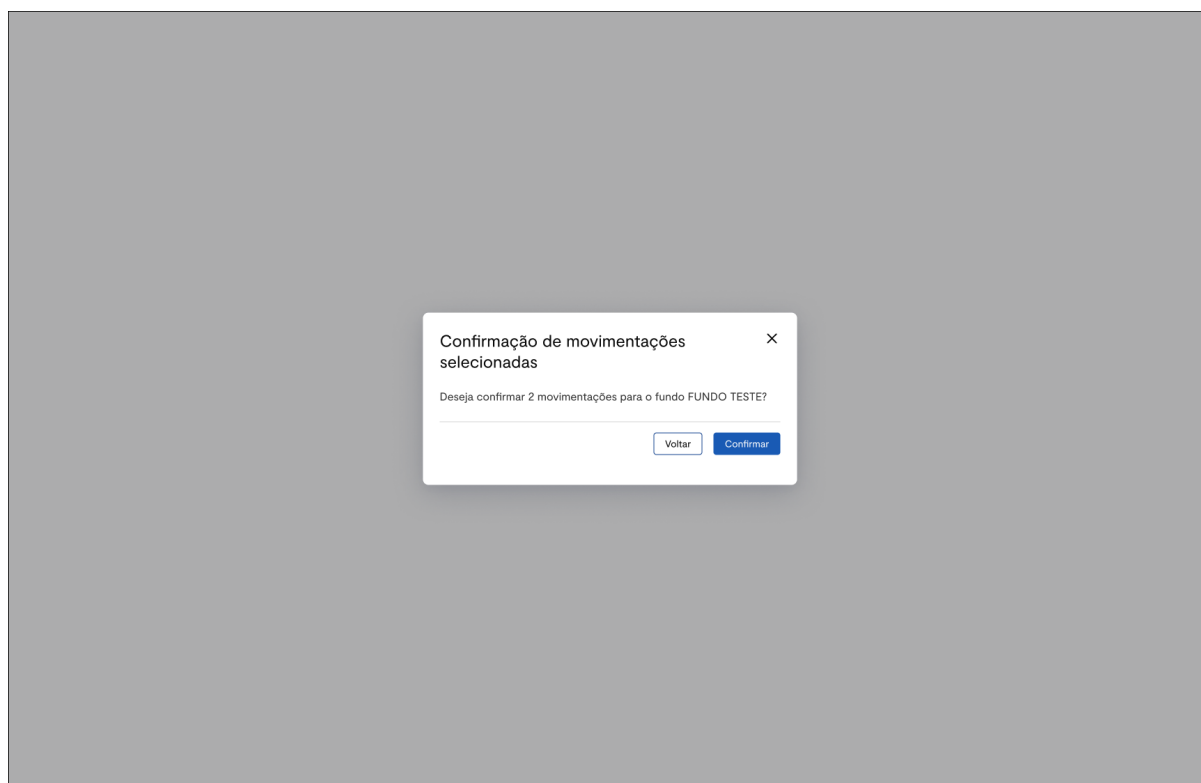


Figure 29 – Manual impact confirmation

For current account investors, the client's bank balance is directly impacted without the need for the client to perform a transaction. For investor account types with impact, the manual impact confirmation is selected, which collects the money for the fund and creates the fund order.

Contribution closing

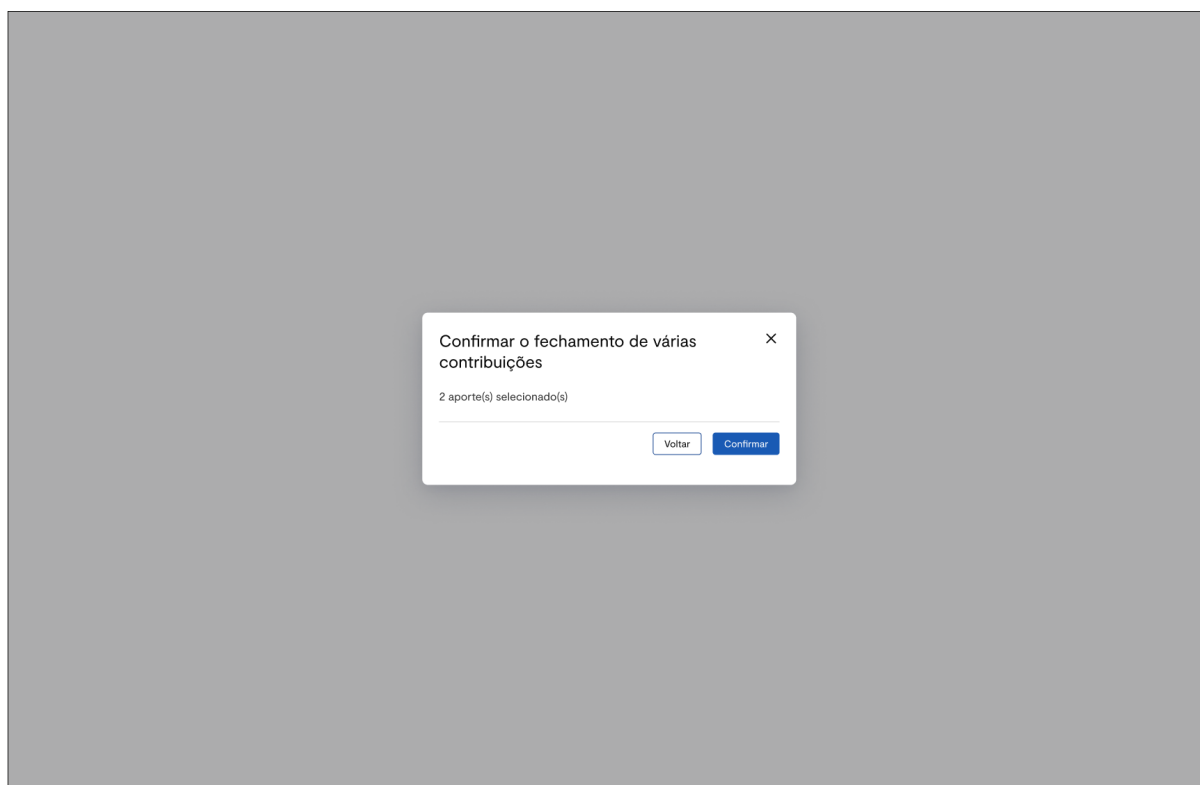


Figure 30 – Contribution closing

This process signifies the completion of the contribution, indicating that there are no outstanding issues to be resolved.

3.4.2.2 E-mail section

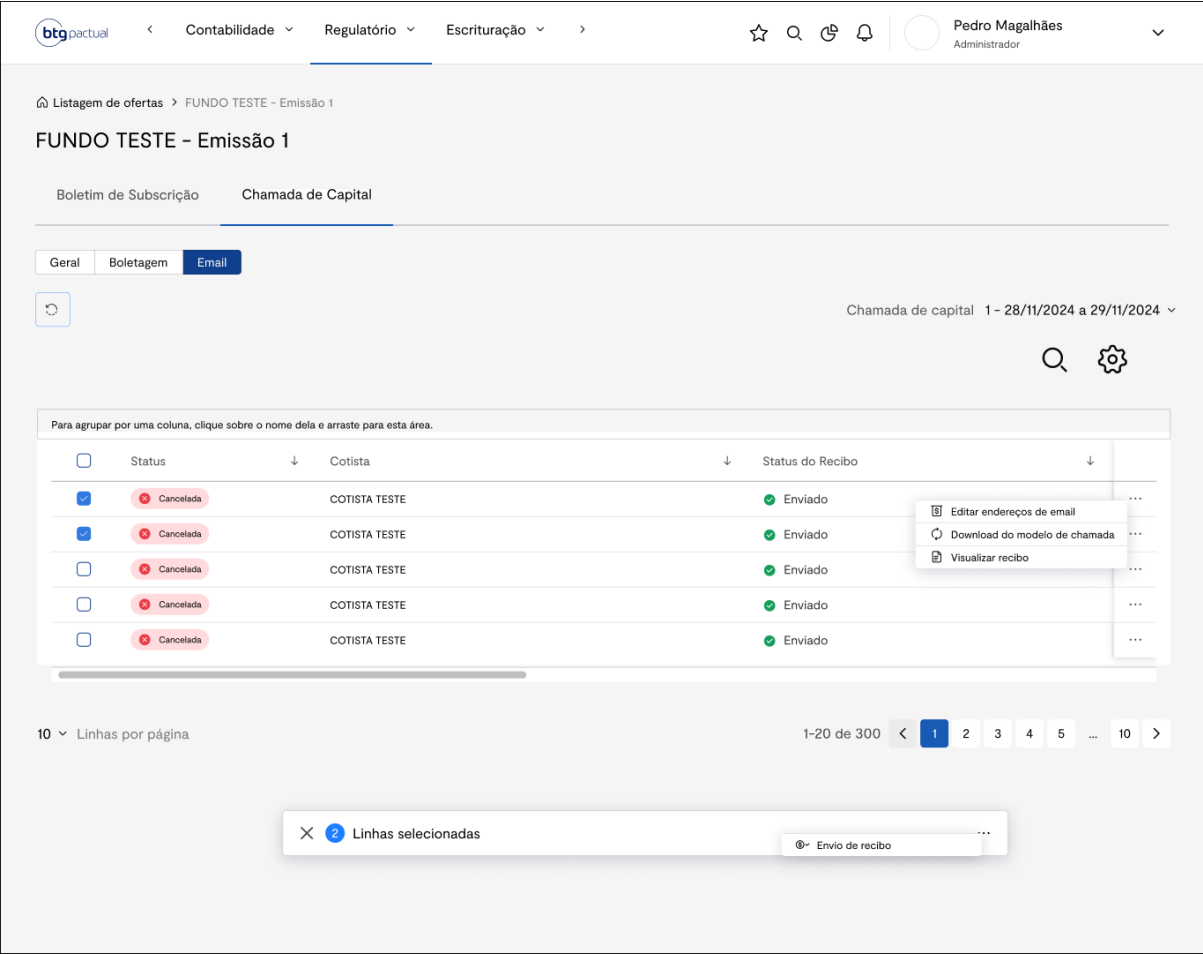


Figure 31 – E-mail section

In the email section, the selection of the call follows the same format, with the main difference being the information displayed in the list of investors, where the status of the receipt delivery, for example, and the available actions will be shown.

Email editing

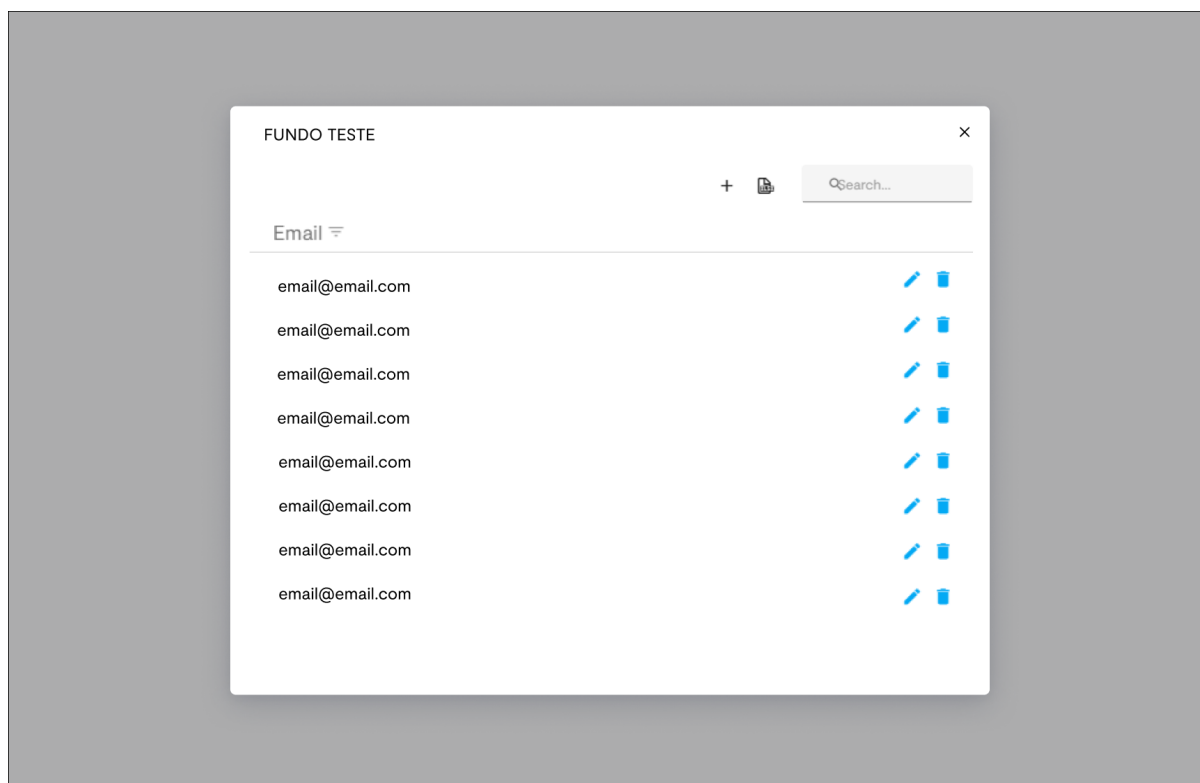


Figure 32 – Email editing

In this screen, it is possible to view all emails registered for an investor, with the option to edit, add, or delete emails.

Capital call download

This action allows for downloading the template email sent to the investor announcing the start of the capital call.

Receipt Preview

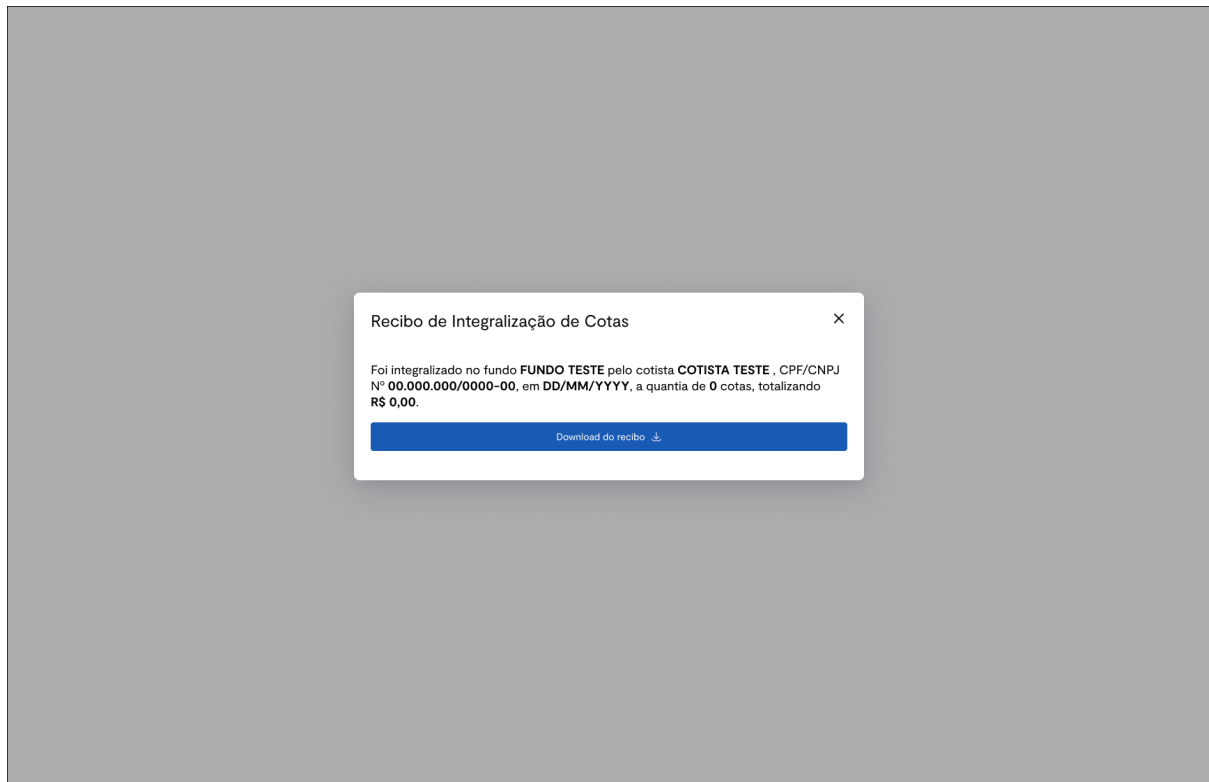


Figure 33 – Receipt preview

This screen provides a summary of the text sent in the receipt email, as well as the option to download the complete content sent.

Receipt Sending

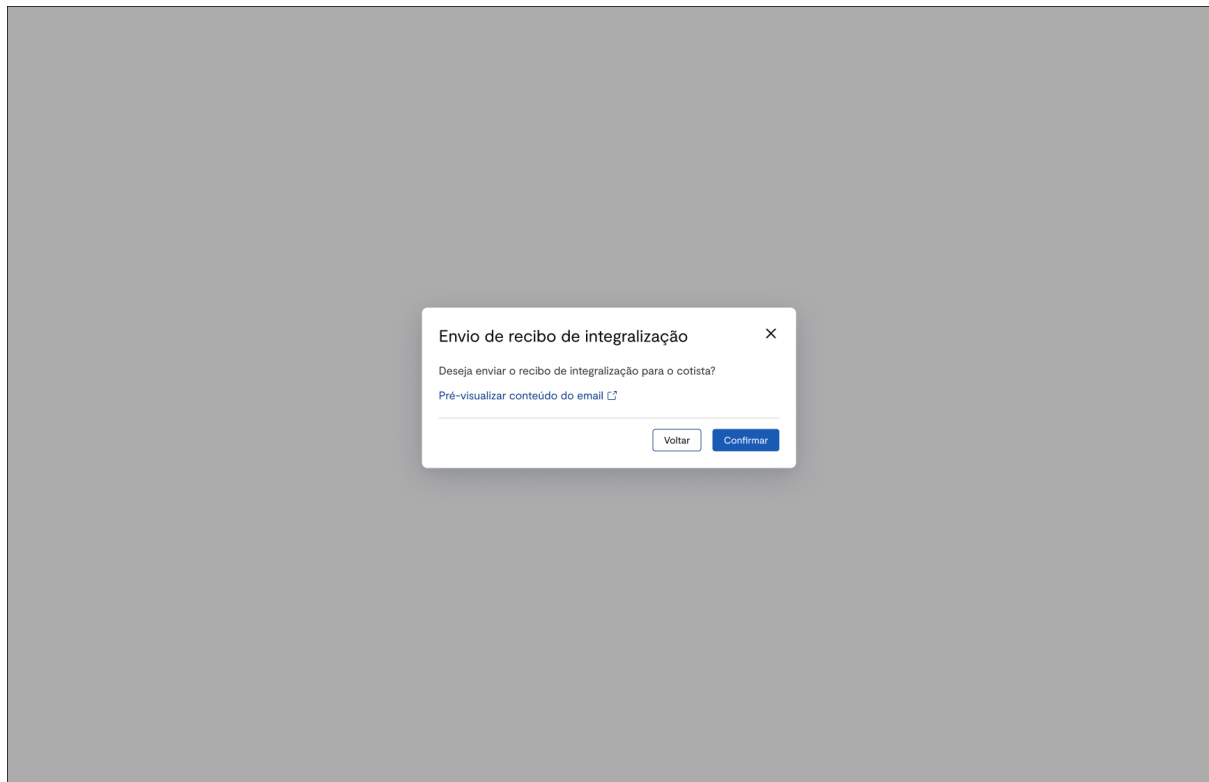


Figure 34 – Receipt sending

This action initiates the sending of the capital call receipt to the investors, with the possibility of tracking the status in the corresponding listing.

3.5 Validation

Usability tests are a crucial component of the user-centered design process. They involve evaluating a product or service by testing it with real users. The primary goal of usability testing is to identify any usability issues, collect qualitative and quantitative data, and determine the participants' satisfaction with the product. During a usability test, participants are asked to complete tasks while observers watch, listen, and take notes. This helps in understanding how users interact with the product and where they encounter problems.

Usability tests are important for several reasons. Firstly, they help improve the user experience by identifying pain points and areas of confusion for users, allowing designers to make informed decisions to enhance the overall user experience. Secondly, they increase efficiency by understanding how users interact with a product, enabling designers to streamline processes and make the product more intuitive and efficient.

to use. Thirdly, usability tests can reduce development costs by identifying and fixing usability issues early in the design process, saving significant time and resources and reducing the need for costly revisions later. Additionally, they enhance user satisfaction by creating a product that is easy to use and meets user needs effectively, leading to higher user satisfaction and loyalty. Finally, usability tests provide concrete evidence on what works and what doesn't, helping to validate design decisions and ensure they align with user expectations.

Maze is a powerful tool designed to facilitate and streamline the usability testing process. It allows usability tests to be conducted remotely, enabling a wider audience to be reached and insights to be gathered from users in different locations. With Maze, interactive prototypes can be tested, providing a realistic experience for participants and gathering more accurate feedback. The platform provides detailed analytics and reports, helping to quickly identify usability issues and understand user behavior. By automating many aspects of the usability testing process, Maze saves time and effort, allowing designers to focus on making data-driven design improvements.

In summary, usability tests are essential for creating user-friendly products that meet the needs and expectations of users. Maze provides a comprehensive solution for conducting these tests efficiently and effectively, helping to gather valuable insights and enhance the overall user experience.

To conduct tests in Maze, specific tasks are assigned for the user to complete using the prototype. This approach allows for the collection of valuable data regarding the user experience.

3.5.1 Offerings Registration

The offering registration tests will encompass the registration of various types of offerings, including the use of optional fields. These tests will verify whether the user experience is intuitive for each type of offering registered, utilizing different form fields. The variable characteristics for each type of offering will include:

- * Listed or unlisted fund
- * Various types of quotas
- * Editing or not editing the issuance number
- * Settlement in CETIP

3.5.2 Shareholders by Capital Call Screen

For the shareholders by capital call screen, each functionality and its variables will be tested both individually and in bulk, along with the monitoring of actions. For instance, in the case of sending integration receipts, it is necessary to track the

sending status until completion. Additionally, error recovery will be tested to ensure robustness and reliability.

3.5.3 Results

3.5.3.1 Offerings Registration

The tests for the offerings registration screen received a total of 3 responses from users directly involved in offer management. The average rating of their experience was 9.65, considered an excellent experience.

It was observed that there were no difficulties in registering different types of offers, with a negligible number of misclicks (2.3% of 78 interactions). Evaluating the understanding of the CETIP settlement section was a major focus during this test. It was necessary to assess whether users could comprehend that this section is optional. If the offer does not involve CETIP settlement, CETIP data is not required. However, if CETIP settlement is involved, all fields must be filled out. Analysis of the results from these two tasks (offer registration with and without CETIP settlement) indicated that the section's functionality was understandable. Among the user comments, praise was given for the division into sections, making the form more organized. Additionally, users requested the ability to save their progress to avoid losing data if they need to leave the screen before completing the registration. This feature will be added to the project's roadmap.

3.5.3.2 Shareholders by Capital Call Screen

The tests for the Shareholders by Capital Call Screen received 4 responses from users working on capital call settlements. The average rating of their experience was 9.5, also considered a great experience.

Among the analyzed data, it was identified that there was some difficulty in performing actions via the control panel. According to a user's comment, familiarity with the button's previous location caused confusion and led to clicking in the wrong place, even though the new layout is considered better. This resulted in a higher rate of misclicks for this task, totaling 17% of 163 interactions. To introduce this new way of accessing screen functionalities and familiarize users, a tutorial will be created for each new platform access, explaining the new screen's functionality.

Among other comments, a request was made to change one of the action titles due to unclear meaning. The action to download the letter sent to shareholders notifying them of the capital call start was titled 'download call model' and will be changed to 'download call letter'.

4

Conclusion

The experiences created for both the offerings registration and Shareholders by Capital Call screens make sense for the users, as evidenced by the positive feedback received during usability tests. The new designs have been well-received, with users finding them intuitive and efficient.

Reflecting on the activities undertaken for the reformulation of the screens, several additional steps could have been implemented to enhance the process and outcomes. Early involvement of users in the design process could have provided deeper insights into their needs and pain points. Conducting initial user interviews and surveys before starting the redesign would have facilitated a more comprehensive understanding of user requirements. Furthermore, adopting a more iterative approach to prototyping and testing could have allowed for continuous feedback and improvements. Creating low-fidelity prototypes and conducting quick usability tests before advancing to high-fidelity designs might have identified issues sooner. Additionally, conducting pilot tests with a small group of users before the full rollout could have identified potential issues and allowed for necessary adjustments. This approach would have provided a safer environment to test new functionalities and gather detailed feedback, ensuring a smoother transition and higher user satisfaction.

Moving forward, the project will implement the new screens based on the feedback received. The ability to save progress in the offerings registration form and the creation of tutorials for the new control panel functionalities will be prioritized. Continuous improvement will be ensured by gathering user feedback and conducting further usability tests. Comprehensive training materials and tutorials will be developed to help users adapt to the new system. Regular evaluations will be conducted to monitor performance and user satisfaction, ensuring that the systems continue to meet user needs and deliver a high-quality experience.

In summary, the project has made significant progress in enhancing the user experience of internal systems, with positive feedback from users. Improving the experience of internal systems is crucial for enhancing the final client experience. Often, organizations focus primarily on client-facing projects, investing significant resources to ensure that the end-user experience is seamless and delightful. However, the efficiency and effectiveness of internal systems directly impact how well employees can serve clients. When internal systems are intuitive, efficient, and user-friendly, employees can perform their tasks more quickly and accurately, leading to faster response times, fewer errors, and higher quality service. By prioritizing the user experience of internal systems, organizations can empower their employees to work more effectively, ultimately resulting in a better experience for the final client. This holistic approach ensures that both employee and client needs are met, fostering a more productive and satisfied workforce and a more loyal and satisfied client base.

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