

## Engenharia de Serviços / Service Engineering (MECD)

2024/2025

### Practical Project, part 1

Applying service design techniques to model a real-world service

**Deadline #1 (part 1, for feedback): 18 October 2024 (23h59m)**

**Deadline #2 (part 1+ part 2, for assessment): 20 December 2024 (23h59m)**

Submission via Inforestudante

Note: Academic fraud is serious ethical breach and is not admissible behavior for a student and future practitioner. Any attempt of fraud may lead to the cheater and its accomplices failing the course. Other sanctions may additionally apply.

### Objectives

Apply the service design techniques to model a service, and, in doing so:

- Gain an understanding of the complexity of services and the need for the said techniques;
- Develop competences in using those techniques for diagnosing and evolving existing services and for designing new ones.

### Final Delivery

Delivery of this assignment must include:

- Persona(s) - two distinct and well-defined personas are enough for the purpose of the assignment; 23/09
- Customer journey map(s); 30/09;7/10
- Stakeholder map(s); 23/09
- Expectation maps(as); 30/09;7/10
- Other elements that the groups deem relevant.

The first three instruments are available in the Smaply software used in the course. Others require additional forms or tools. Further details are provided in class.

A set of PDFs with the deliverables must be generated and submitted via Inforestudante by the deadlines.

## Overview

The goal of this project is to model and implement the service of requesting a bank loan online.

The customer begins by accessing the bank's website, specifically the loans page, where they can use a simulator to set the loan amount, duration (maturity), or monthly payment. After finalizing these details, the customer must log in to the bank to complete the loan application, requiring authentication via facial recognition. Based on the selected loan type, the system prompts the customer to enter the necessary information (e.g., monthly income, regular expenses) and/or upload required documents (e.g., salary slips). The system processes this data to calculate a credit score (e.g., using a machine learning module) and classifies the application into one of three categories: (i) accept, (ii) interview, or (iii) reject. A loan officer is then assigned to the request, receiving the credit score information to decide whether to approve, reject, or request an interview. The system records the decision and notifies the customer via SMS or email, depending on their preferences, that a decision is available in the application. If an interview is required, the loan officer provides available time slots, and the customer can select the one that best suits them. Following the interview, the loan officer makes a final decision, records it in the system, and the customer is informed via SMS or email that the decision is available in the application.

Bank employees access the system through conventional login and password procedures, granting them access to a dashboard with statuses for the different loan request processes.

You may assume that accounts were previously created (i.e., they already exist).

## References

Researching facts and not making assumptions is part of the process of good service diagnosis and design. Feel free to investigate real services like the one described for inspiration in modeling yours (access banks' websites to explore additional information and ideas). Look also into software that supports online loan processes, such as Digital

Loan Origination System (<https://www.inlaks.com/our-business/inlaks-digital-solutions/marketplace/digital-loan-origination-system/>), Loan Management Software (<https://www.creditonline.eu/>), or similar tools.

The instructors are available to discuss your options.

### **Important aspects (based on errors frequently made by students)**

#### **Regarding personas**

It is important that the descriptions of the personas are rich and detailed. They must be credible as if we were describing real people. Only knowing people well enables you to design a service that suits them. Regarding the number of personas, it's not really about being a lot or just a few, but how different and complete are the described profiles and needs. For instance, it does not contribute a lot to the service design if we have a lot of personas with basically the same needs; but we should not leave out important profiles.

#### **Regarding customer journey maps**

Being so rich, this is one of the most important tools in service design. It enables us to understand how the customer “travels” along our service. It's almost like a movie, where we have various scenes or snapshots in sequence. One of the most important aspects – see slides and book – is to make sure that we have the most adequate touchpoints (the moments of interaction). Journey maps are also very powerful in the sense that they enable us to relate what the customer sees and does with back-office actions and systems and the channels that are used for the interaction in touchpoints. If the customer receives a notification by SMS (channel), then there must have been a backoffice system/person/process sending that message (backoffice lane) — all these events and lanes must be consistent with each other. It is the proper synchronization of people, technology, and processes that ensures that the service flows smoothly. Pay close attention to how front-end systems and back-end systems interact across various channels. All must be consistent in the customer journey map. Remember that a channel is a “means for contact”: email, phone, SMS, face-to-face encounter, land mail, etc. Product or money are not channels.

Regarding the number of maps, check the slides and book. It all depends on the level of abstraction and detail that you decide is adequate. You may have “happy path” scenarios, exception scenarios, different maps for different ways to use the service, etc. Please also remember that your maps must be understandable. Avoid too much clutter in one map (e.g. lots of personas).

It is frequent for people to forget touchpoints when modeling. Remember that confirmation emails/SMS are touchpoints, email/SMS warnings of the impending arrival of the order at your home are touchpoints, the physical interaction with the delivery person is a touchpoint.

### **Regarding stakeholder maps**

It is key to identify the different importance of the various involved stakeholders. Keep things clear, so that someone else can understand the exchanges between the various actors. The number of maps to create depends on the different scenarios of exchanges that you want to explain.

### **Regarding expectation maps**

Expectation maps should be consistent with the profiles and needs of your personas. It does not make sense to have several different personas, with different motivations, and then just the same expectation map for all of them. Indeed, some expectations may be common, but others will be different. For instance, someone with a lot of money and little time has different expectations than someone short on cash. The expectations of a young active person are different from those of a senior or handicapped person.