Engenharia de Serviços (MEI / MES)

2024/2025

Practical Project, Part 1

Applying service design techniques to model a real-world service

Deadline #1 (part 1, for feedback): 14 March 2025 (23h59m)
Deadline #2 (part 1+ part 2, for assessment): 23 May 2025 (23h59m)
Submission via Inforestudante

Note: Academic fraud is a serious ethical breach and is not admissible behavior for a student and future practitioner. Any attempt of fraud may lead to the cheater and their 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 competencies in using those techniques for diagnosing and evolving existing services and for designing new ones.

Submission

For part #1 (specification of the service) of this assignment, you must submit:

- Persona(s) – two well-defined personas are enough for the purpose of the assignment.
- Customer journey map(s).
- Stakeholder map(s).
- Expectation map(s).
- 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.

IMPORTANT: Before starting each part of the project development (i.e., design and development), the group must obtain the professor's approval regarding the distribution of tasks among its members. Regarding the split of work, students are required to showcase their acquired skills in both the design and implementation components of the project. It is essential to ensure that all students engage in both aspects of the project, rather than dividing tasks in a way that some students are solely responsible for design

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while others handle implementation. This approach will considerably penalize the entire group. This aspect is assessed during project development as well as in the final defense.

Overview

This project aims to develop and implement a modern computer repair service for PrimeTech Repairs. Customers begin by visiting the PrimeTech Repairs website, where they can browse predefined repair services such as screen replacement, battery replacement, software troubleshooting, and virus removal. Each service includes a price estimate based on standard repair costs. Customers then select a service and book an appointment, choosing between standard or urgent repair, with urgent repairs incurring a non-refundable urgency fee. In case they already have an account, they can log in and associate this request. They can leverage face recognition to authenticate.

At the scheduled time, customers bring their devices to the shop, where a technician performs a brief inspection to confirm that the selected service applies. Customers then pay a non-refundable diagnostic fee, which will be deducted from the final bill. If an urgent repair was selected, the urgency fee is also paid at this stage but it is not deducted from the final cost.

A detailed diagnosis follows, and if additional repairs or higher costs are required, the shop contacts the customer to explain the situation and request approval before proceeding. Approval is done through the website after login, where a detailed description of the additional work and costs is available. If the customer agrees, they select the appropriate option online, and the repair continues with the updated price. If they decline, they select the appropriate option and can retrieve the device without any further work beyond the initial diagnostic.

Once the repair is complete, the customer is notified via SMS or email. They then pick up the device and pay the remaining balance, which is the final repair cost minus the previously paid diagnostic fee. An invoice is sent via email.

Throughout the process, customers can track the repair status through their online account.

References

Researching facts and not making assumptions is part of the process of good service diagnosis and design. Feel free to investigate real services online. The instructors are also available to discuss your options. Here are also some examples:

- Micro Center - https://www.microcenter.com/site/service/instore-service-diagnostics.aspx
- NerdsToGo - https://www.nerdstogo.com/on-demand-it-services/

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Important aspects (based on errors frequently made by students)

Regarding personas
The descriptions of personas must be 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 is not 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 is 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 back-office system/person/process sending that message (back-office 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, and 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.

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