Engenharia de Serviços (MEI / MES)

2021/2022

Practical Project

Applying service design techniques to model a real-world service

Deadline #1 (part 1, for feedback): 25 March 2022 (23h59m)
Deadline #2 (part 1+ part 2, for assessment): 20 May 2022 (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.
- Apply the cloud-based technologies you have learned to create a simple, powerful, responsive, well-designed, and beautiful service.

Submission

For the 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 maps(as);
- 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.

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For the part #2 (revised specification + implementation) of this assignment, you must:

- Develop part of the assignment in the Amazon AWS cloud. This means that you should install and configure multiple services on the Amazon AWS cloud.
- Keep your installation on Amazon until you present the assignment. Keep it untouched and remember that many services keep track of the dates they were updated.
- You should bundle all the code and other elements that you do not keep online on Amazon and deliver them in Inforestudante before deadline #2. Please keep your file sizes as small and possible, by uploading only the source code. Do not upload compiled and public software libraries that you have running with the code. You do not need to deliver a report.
- By deadline #2 you must also re-submit an improved specification of the service, based on the feedback you received in part #1. You must include a brief document stating the changes that you made to your original specification to address the feedback.

Overview

The goal of this assignment is to model and implement a modern restaurant service.
When entering the restaurant, the user starts by picking up a location tag and then proceeds to choose the meal on a big touchscreen where all the options are presented. After composing and submitting the order and indicating the number of the location tag, the user must pay, using the restaurant's face recognition technology. Upon successful payment, the restaurant sends the user an email with the receipt. The user can then find a table to sit. When the meal is ready, a robot will use the location tag to find the user and deliver the food. A final face recognition process is used to ensure that the recipient is the correct one.
You may assume that the payment account has been previously topped up.
When the kitchen staff authenticates in the system using traditional login and password, they can see the pending orders and the status of each.
Note that the kitchen staff is not the "customer". Consider where the above information about it should be used in the diagrams that you need to submit.

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. The instructors are available to discuss your options.

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Left: locator tag ; Right: Order touchscreen

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 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,

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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.

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