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1. Introduction and Problem Description

E-commerce is getting increasingly popular recent years due to the convenience that it provides and the plenty advantages coming from it. It enables customers to search for goods and make purchases right away no matter where they are. Not only its timesaving but it also has environmental preservation.

However, there are some downsides following the process of ordering and delivering the product from point of view of the customer. The whole process can be investigated separately because both processes come with its own problems.

Due to the current situation of COVID-19 the e-commerce shopping has immensely increased in all sectors. Both men and women are found to be shopping online and avoid in-store experiences which means that they need to pick up more orders and be concerned with what will be delivered and when.

This results into the majority have trouble getting overview of their purchases after being ordered online since every web-shop shares different standards for reservation confirmation and delivery process. This grows into mixed information in each person's mailbox and makes it hard to keep track on all orders. This can lead to people not being able to pick the product, not know when it will be delivered or how big the package is.

2. Problem Formulation

Focus of the project is to create two digital solutions, which makes picking up online purchases a convenient process and solve some of the pain points that will appear during the user research.

3. Research Method

The development method that is going to be used in the current project is Design Thinking focused around the problem-solving approach. Within this model, the 5 stages will be performed

in an agile manner. It will be started with the empathize stage in which the user will be engaged and investigated towards his emotions, feelings and experiences. To do so, quantitative and qualitative data will be used, and several interviews will be performed. The categorization of users will be made based on objective and subjective criteria. Based on the interviews, a thematic analysis will be done since personas are based on themes in qualitative research and this will help for the process of creating them. Empathy map will be prepared because it will help to categorize the knowledge about the user into one place and it gives summarized illustration of the person. Most importantly, it will guide us towards significant innovation. To solidify the research, user journey map will be created in order to investigate the touchpoints and channels that the user would interact with.

After this part, the gathered data will be put together and used to formulate the problem from humancentric point of view. For the following stages it might be gone through several iterations depending on the outcome that cannot be predicted at this point.

For the ideation stage it will be gone through brainstorm session in order to get idea of some of the features that will be included in the app. During the whole project it will be worked with convergent thinking to stimulate the creative ideation flow followed by divergency to pick up the most relevant ideas.

4. Applied Theory and Method

Agile is an iterative, team-based approach to development. This approach emphasizes the rapid delivery of an application in complete functional components. (Lotz M., 2018)

To collect qualitative data **interviews** will be performed according to Brinkman's and Kvale's 7 stages of an interview investigation. (Svend Brinkmann, 2015)

User categorization/segmentation will be used to divide the market into target groups based on subjective and objective criteria. (Philip Kotler, 2010)

Empathy Map is a visualized collaborative mapping of users. It shares an understanding of what is known to create a common understanding of users and how one should go about decision making. (Gibbson, 2018)

Personas are fictional characters shaped based on gathered data and focus area to gain insight on user behavior and journey while using interfaces. Personas help in development of functionality and content. (Nielsen, 2019)

Design Thinking is a solution-based approach to solving problems, Design Thinking is particularly useful for addressing so-called "wicked" problems. (Waloszek, 2020)

A customer journey map is a research-based tool which examines the story of how a customer relates to the business, brand or product over time. It gives an insight into the "typical journey" for a customer as well as providing insight into current and interactions with customers. (Komninos, 2020)

Design Patterns are going to be used in order to enhance the functionality of the product since they are already proven by experts. (Neil, T., 2014)

Visual Hierarchy refers to deliberately presenting visual content in such a way that the order of importance is clear and quickly understood. (Gordon, 2020)

Readability ensures that the content is conveyed effectively by making sure the user recognizes the information efficiently without a need to spend extra efforts. (Lidwell, Holden and Butler, 2010, p. 198)

Gestalt principles are rules of how people perceive things, and their aim is to group the regularities. These principles mainly apply to vision and they help people perceive the visual fields to be as groups and segregated from the rest. (Todorovic, p.53)

Color theory is used to describe the collection of rules and guidelines regarding the use of color in art and design. It informs the design of color schemes, aiming at aesthetic appeal and the effectiveness of a design message on the visual and the psychological level. (Lidwell, Holden and Butler, 2010, p. 48)

5. Analysis

5.1. Categorization

To delimit the users, they have been categorized based on demographic, geographic, behavioral and psychological criteria. The main target group of this platform based on quantitative data would be people aged between 20 and 40 years old and consider themselves active internet users. They should be seeking discounted prices, pays attention to reviews, enjoy shopping online and avoid physical shops. The

categorized users should lead dynamic lifestyle, do active research before purchasing and are concerned about being organized.

The data is provided by Statista and it shows that over the past year people between 20 and 40 years old appear to be most active online shoppers within Denmark.(*Figure1*) (Denmark: share of online shoppers by age group 2016-2019 | Statista, 2020)

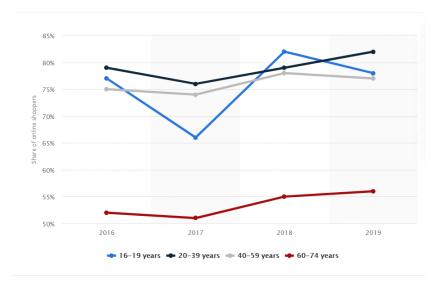


Figure 1

5.2. Interviews

Interviews have been performed based on Kvale's 7 stages and the main purpose of the investigation is to obtain knowledge about the struggles that users encounter in delivery process when they make purchases online. There are two hypotheses formulated in the interview guide and they are as follows:

H1: People find it hard to get an overview of their purchases due to the mixed information in their mailboxes.

H2: People are usually misled by the time of arrival or pick up time of their delivery.

Later, thematic analysis has been approached for the qualitative data where two steps are being followed. First, the interviews are coded in order to get meaningful groups and have an overview of the most interesting pieces of data. The following step is to look for the main themes in the interviews and colour-code them.

There are two main categories that the questions were split into. The first one is about how the users deal with online purchases and the second one is everything about their experiences with picking up deliveries either positive or negative.

What can be outlined from the interviews is that people have different preferences on how they want to have their product deliver because of their different daily lifestyle-"Wants it to be delivered at office so he can pick it up whe-never its convenient for him" (Appendix 10.1.). The majority keep track of their purchases online either from an external website or the website of the company he did the purchase from.

If they can't find the information they need in the website, they dig into their emails. "Most of the purchases are from the same website and usually he uses the app of the company to keep track of them. In other cases, he looks up for email" (Appendix 10.1.).

Another aspect that has been mentioned from several interviewees is the size and the weight of the purchase and that it matters when buying items online so that the person is prepared when picking it up.

Looking into their experiences with picking up deliveries, all 5 interviewees put the estimation delivery time as top priority for good experience and if they find a problem or delay with their purchase what they do is connect with service centre of the given company. "Sometimes annoyed because in text message it says the package arrives in the morning and in reality, it arrives in afternoon and the whole day is wasted. Bad precision with deliveries to home" (Appendix 10.1.).

6. Problem Solution

6.1. Empathy Maps

The following step of the research is creating empathy maps that are going to be used as a tool to gain a deeper insight into what the users think, feel, do and say when in the process of purchasing and picking up deliveries. Each team member started going through the interviews one more time and wrote sticky notes that align to the four quadrants. The next step is to cluster sticky notes in empathy maps and to start analysing them.

Overall, it can be outlined that people turn out to be extremely impatient throughout the whole process of waiting to pick-up the purchase and every small detail that comes on their way of picking up the package such as delay or service problem, annoys them and makes the overall experience unpleasant. What they usually do is to track their purchase through email or company's website. (*Appendix 10.2.*)

6.2. Personas

After having the interviews analysed and the empathy maps prepared, a goal-directed persona has been created based on them to match the common characteristics and needs the interviewees have. This type of persona examines the process and workflow that the user would prefer to utilize in order to achieve the objectives in interacting with our product or service. (Dam, 2020) The information that the persona contains focuses around their need and frustrations in order to come up with relevant features later in the process. Irrelevant background details have been avoided. The persona has also been given a situation and scenario where the motives and the behaviour of the user are easily portrayed. The situation into which Kim was put is Black Friday shopping because it is the time of the year when people are found to be shopping the most. In that situation it can be easily shown how the current solution might come into use. In order to dive deeper into the process of purchasing and picking up delivery of the user, a user journey map will be created based on the existing persona. (*Appendix 10.3.*)

6.3. User Journey Map

As a subsequent step to personas, a user journey map is built to graphically present possible expectation, experiences and feelings of a customer. The whole structure of the map can be divided in 3 zones, where the **top zone** is based on the persona and scenario, the **middle zone** expresses the feelings and experiences and the **bottom zone** for identifying the barriers and insights. (Komninos, 2020)

As part of the user journey map, the team also visualized the first part of the user's actions – the steps before interacting with the app. This helps in understanding of how the product is useful to the customer and in which situation it should be presented. In this case, the product and its features are presented at the check-out while the person is finishing online shopping.

For the second half of the user journey where the customer interacts with the app, a clear understanding of touchpoints and different channels helped in establishment and description of customers pain-points which

have been color-coded in red. These pain-points helped the project team to look at the product from a user centered point of view and generate the ideas for the potential solution. (Appendix 10.4.)

6.4. Define

Moving on to the next stage of the design thinking model, the group needs to formulate problem statement also known as the "Point of View", that is based on specific users, their needs and most essential insights about them. It should be narrowly focused problem statement that will generate higher quality solutions later on during brainstorm session.

The group used POV template in order to define the user needs that are extracted from the research and turned them into insights on why there is such a need.

User	Needs	Insight
25-years-old woman, who has a student job as a Graphic Designer. Does online shopping	Have a clear overview of the delivery process.	The user would like to manage her time better because she is very organized.
few times a month due to COVID-19	Be aware of the size and weight of the package	The user wants to be prepared when she needs to pick up a delivery in case she needs to be with the car, or she can just go with the bike
	Be sure she can return damaged purchases or contact the company in case of delay	The user would like to inform if something is damaged or she wants to return it as fast as possible and find it at another place.
	Be aware where the purchase is at a given time	The user needs to know where the purchase is so that she is aware if its going to be delivered by the time she needs it
	Needs to be aware if she should stay home if she expects a delivery	The user needs to be informed beforehand if she needs to be home at some point throughout the day in order to inform her boss or reschedule meeting

In order to articulate the human centered POV, the group combined the users' needs and insights:

• Kim needs to have a clear overview of the delivery process because she would like to manage her time better since she is very organized.

- Kim needs to be aware of the size and weight of the package because she wants to be prepared when picking up the delivery in case she needs to be wither with car or a bike.
- Kim needs to be sure she can return damaged purchases or contact the company in case of delay because she wants to have it returned as soon as possible and get it from other source.
- Kim needs to be sure where the purchase is at a given time because she wants to be aware if it's going to be delivered by the time, she needs it.
- Kim needs to be aware if she should stay home in case, she expects a delivery because she needs to inform her boss at work or reschedule meeting.

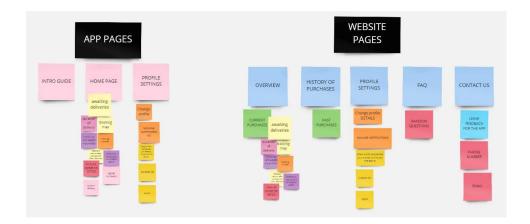
6.5. Ideate

The subsequent step in the process of design thinking was idea generation. To articulate the ideas that the team members are having a brainstorming session was performed (Friis Dam and Yu Siang, 2020). The whole process of brainstorming was structured by some rules where team members aimed at a target problem and generated a high volume of ideas and later on refined them, built upon strong ideas and visualized the process. The main focus was to generate features based on the pain points of the user journey map and persona.

As a helper tool while brainstorming an online platform - Miro was used where virtual post-it notes were collected and gathered in one group to visualize the structure. Affinity Diagrams were used

quick guide feedback Directions, easy contact section after when tracking instructions to service package has lauching app number on location center been delivered for first time details duration intro reminders to section where of be home at notifications currier sends page some points delivery message Customer show size settings profile support, and weight support page of purchase panel icons for notify when tracking there is pick up history of change with map purchases?? the status of options the delivery show that the package FAQ has been dlivered

as a method to cluster the pieces of data into meaningful groups and sub-groups based on their internal relationships. Also, by building affinity diagrams it helped the group to imagine the information architecture of the pages. (Friis Dam, 2020)



As a final result of the brainstorming session the group came up with 2 different solutions where the different pages had separate features related to each occasion of usage. These features are later taken into the prototyping stage where the ideas are clearly defined and put into interface.

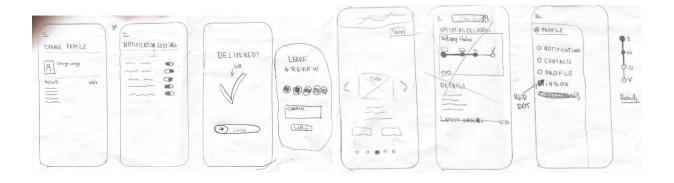
It has been decided to build website and an app as it is most relevant for our user. The app will provide quick overview of when the person should be home or pick up delivery and manage push-up notifications. Whereas, the webpage would have more features such as statistics, history of past purchases, managing the vendors the user is connected to and FAQ.

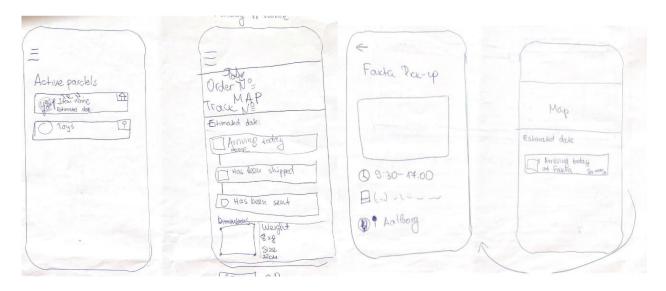
6.6. Prototype

For the next stage of Design Thinking development method, the group proceeded with bringing the brainstormed ideas to life. It has been started with paper prototypes where the focus was on putting the predicted content into pages and built preliminary layout. (Lidwell, Holden and Butler, 2010, p. 194)

6.6.1. Low fidelity

The group created the low fidelity wireframes of the app on paper in order to shape the ideas faster and more efficiently. Each member drew his own idea in order to work divergently and in the end by commenting out what choices has been made, it has been proceeded with a mutual sketch combining the good solutions. The main focus at that stage is to build the skeleton of our app. The features that have been included are considered to be of daily need and any less important information has been avoided with further thought to be put on the website.





After the paper prototypes for the app have been done, the group moved on working with the structure of the website. Mobile-first design is approached in order to work with progressive disclosure and sidestep undesirable problems that may arise when trying to eliminate content for mobile if starting from desktop. (Spillers, 2020).

Within this website more content will be added compared to the mobile app so that the user can find more detailed information such as history of purchases, FAQ, follow up on their statistics and have a chat box to get in touch with the client center. These features have not been included in the mobile app since they are found to be less relevant for daily use.

6.6.2. Wireframes

A digital wireframe of the website and the app have been built in order to understand easier how the user flow would go for target users. Also, it is beneficial to build wireframes in order to see if the idea is worth continuing building or the group should go back to any previous stage of the design thinking method and see what is missing in the findings. (*Figure 2*)

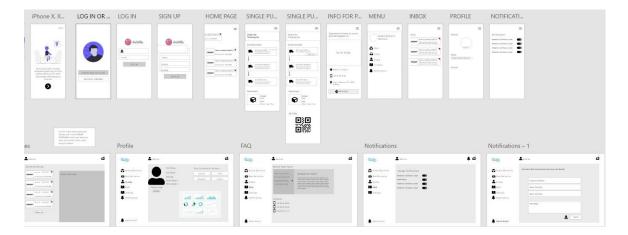


Figure 2

6.6.3. High-fidelity prototype

When the process of building the high-fidelity prototypes started, it has been decided to proceed with monochromatic color scheme so that it can be more memorable and start building brand identity. Different shades of blue have been used for the different types of interactive or non-interactive elements of the interface.

The group has its focus on to elevating the design by having layered elements in order to create feeling of depth and dimensions. This makes the app look more realistic and intuitive to use. In regard to the usability of the app, there are four aspects that has been paid close attention to and they are the following: learnability, efficiency, memorability and satisfaction. In order to evaluate the learnability and efficiency it should be monitored how easy it is for the user to accomplish basic task for first time he encounters the product. This will be tested in the next stage of the design thinking process. In order to enhance the satisfaction of the user, the group aims to make the interaction design at a high-level, so the user feels involved in the decision-making process.

Some of the gestalt principles are used such as proximity which is about perceiving elements as a group when they are close to each other. It is used for each section where the different elements are grouped together. (Ahripova, 2020)

When building the layout of the app and the website the group paid close attention to affordances. It refers to the physical characteristics of an object and how it influences its function. For example, where there is shadow to some of the buttons or elements it appears to afford pressing. (Lidwell, Butler and Holden, 2003, p.20)

For creating hierarchy of content, the group started by building small style guide where the exact measurements of various interface elements can be found so it is kept consistent. Next, the important chunks of content have been put in bold or given bigger font-size in order to ease the eye-scanning process.

Moreover, both products that are built are kept with repetitive organisms which promotes functional and aesthetical consistency. The functional consistency helps the user to efficiently transfer knowledge to new contexts and focus attention on the relevant aspect of a task. The aesthetical consistency boosts the recognition and sets emotional expectations. This is an important aspect of building up the design because it is wanted to build a brand identity and recognition. (Lidwell, Butler and Holden, 2003, p.46)

6.7. Testing

5-second test has been conducted by using the landing page of the mobile app that would have all of a users deliveries on it, to see if the users could recognize what kind of app it is and to see what details they consistently retained and stood out most to them from the page. (UsabilityHub | User Testing and Usability Research Platform, 2020)

The most common thing that all of our participants noticed was the online shopping companies used as examples, like amazon and asos, and they also noticed the order numbers next to the web shop pictures, but most of them didn't know what they meant or they thought it was the companies phone numbers because they didn't even notice the order number text in the middle. No one even mentioned the active parcels header, delivery date or the type of delivery used.

When asked what they thought the app would be used for, most of the participants had no idea what it's main purpose is, some got the concept of it being an app to keep track of deliveries because they noticed that there was amazon and asos, and one person thought it was something like a web shop.

As a result of the testing, it has been decided to include 4-step guide into the app when the user launches it for first time. Within this guide we show the main purpose of the app and how it would benefit the user.



For the second five second test a picture was used from the app of the actual process of the delivery to see if the user could identify that this page is meant to keep track of the package they ordered.

When asked what stood out to the participants most, every one of them mentioned the delivery truck and dates and times of delivery, along with burger menus and package illustrations. Which confirms the expectation of the visual hierarchy the group was aiming for. After the second test there werent any further changes on the interface structure.

7. Conclusion

To properly tackle such a commonly faced issue, it is obvious that it should be looked at from different angles, where a thorough user research must be made to collect the right data. The multimedia production provides an insight of how a possible solution could look like based on a small group of users and focus on their pain points. It has been worked closely with design thinking principles and methods of user centered design to get the understanding of core problems. By combining theories, a multimedia solution provides a service which could potentially make the life of an online customer easier by managing the time and information from different sources in one place. Throughout the process several tests were made to alter the existing solution and continue working closely with user centered design.

8. Process reflection

The project that has been worked with for the past month has been challenge for all of us since the time frame was short for the product that needs to be submitted. However, we prioritized what we want to focus on and that was to understand the whole concept of design thinking by trying out all the new tools that have been presented to us during the ongoing lectures.

The part that could have been performed better is our interview guide where we noticed that we didn't get detailed answers as we expected so it was difficult to analyze and interpret them later. What went well was the prototyping part where we easily put our ideas together and agreed upon the layout of the page. We worked collaboratively which enabled us to upgrade each other's ideas and think outside the box.

9. Literature list

Available at: https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/personas [Accessed 2019].

Friis Dam, R. and Yu Siang, T., 2020. Learn How To Use The Best Ideation Methods: Brainstorming, Braindumping, Brainwriting, And Brainwalking. [online] The Interaction Design Foundation. Available at: https://www.interaction-design.org/literature/article/learn-how-to-use-the-best-ideation-methods-brainstorming-braindumping-brainwriting-and-brainwalking [Accessed 26 October 2020].

Gibbson, S., 2018. Nielsen Norman Group. [Online]

Gordon, K., 2020. 5 Principles Of Visual Design In UX. [online] Nielsen Norman Group.

Komninos, A., 2020. Customer Journey Maps - Walking A Mile In Your Customer'S Shoes. [online] The Interaction Design Foundation. Available at: https://www.interaction-design.org/literature/article/customer-journey-maps-walking-a-mile-in-your-customer-s-shoes%20 [Accessed 24 October 2020].

Kotler, P., 2020. 7 Steps Needed For Successful Benchmarking. [online] Associationexecutives.org. Available at: https://www.associationexecutives.org/resources/resource-centre/7-steps-needed-for-successful-benchmarking.html [Accessed 3 June 2020].

Lidwell, W., Holden, K. and Butler, J., 2010.Universal PrinciplesOfDesign. Gloucester (Mass.): Rockport., p. 48, p. 198, p.194, p.46, p.20

Lotz, M., 2018. Waterfall Vs. Agile: Which Methodology Is Right For Your Project? [online] Segue Technologies. Available at: [Accessed 15 January 2020].

Neil, T., 2014. Mobile design pattern gallery. Sebastopol: O'Reilly Media, Inc.

Statista. 2020. Denmark: Share Of Online Shoppers By Age Group 2016-2019 | Statista. [online] Available at: https://www.statista.com/statistics/560530/share-of-online-shoppers-in-denmark-by-age-group/ [Accessed 21 October 2020].

Svend Brinkmann, S. K., 2015. InterViews. In: Learning the Craft of Qualitative Interviewing. s.l.:s.n., p. 99.

Usabilityhub.com. 2020. Usabilityhub | User Testing And Usability Research Platform. [online] Available at: https://usabilityhub.com/ [Accessed 29 October 2020].

Todorovic, D., 2008. Gestalt principles. Scholarpedia, 3(12), p.53

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Waloszek, G., 2020. Introduction To Design Thinking - SAP User Experience Community. [online] SAP User Experience Community. Available at: https://experience.sap.com/skillup/introduction-to-design-thinking/ [Accessed 24 October 2020].

Spillers, F., 2020. Progressive Disclosure. [online] The Interaction Design Foundation. Available at: https://www.interaction-design.org/literature/book/the-glossary-of-human-computer-interaction/progressive-disclosure [Accessed 27 October 2020].

Friis Dam, R., 2020. Affinity Diagrams – Learn How To Cluster And Bundle Ideas And Facts. [online] The Interaction Design Foundation. Available at: https://www.interaction-design.org/literature/article/affinity-diagrams-learn-how-to-cluster-and-bundle-ideas-and-facts">https://www.interaction-design.org/literature/article/affinity-diagrams-learn-how-to-cluster-and-bundle-ideas-and-facts [Accessed 28 October 2020].

Ahripova, A., 2020. Psychology In Design. Principles Helping To Understand Users. [online] Tubik Blog: Articles About Design. Available at: https://blog.tubikstudio.com/psychology-in-design-principles-helping-to-understand-users/ [Accessed 4 June 2020].

10. Appendices

10.1. Coding tables, Interview Guide

Code (Thematical headline)	Keywords	Cate	gory
Introduction	Antea, 20, Graphic Design student, occasional purchases	Intro	duction
Last online purchase	Something for her sister, her sister sent her the link, she	Deali	ng with online
	opened up the link, payed with her credit card, typed in her	purch	nases
	address and then got the package a few days later.		
Importance of delivery	Not extremely important but would like the package to come	Deali	ng with online
	relatively quickly and at her address.	-	nases
Keeping track of active deliveries	Usually doesn't have more than one delivery at a time, but she		ng with online
	usually keeps track by email because they send her updates	purch	nases
	about where the package is.		
Specific guidelines when ordering	Has to have tracking otherwise the site seems a bit shady, and	Deali	ng with online
online	in general just stays away from no-name shady sites.	purch	nases
Habits for picking up a package	Usually it gets delivered to her address so all she does is hear	Deali	ng with online
100	the doorbell ring, sign her name and takes the package.	purch	nases
Situation when needed to be	Every time, usually going to text her we will be here at this	Expe	riences with
home to pick up a delivery	time.	pickir	ng up deliveries
Worst online experience	Once it took a month and a half for the product to get there,	Expe	riences with
	even though it said it would be there in a week, and had to pick	pickir	ng up deliveries
	it up at some random tobacco shop.	-	The state of the s
Situation when the package was	No, I haven't experienced that.		riences with
not received at all		-	ng up deliveries
Smoothest online purchase	Just ordered something online that came within a few days and	Expe	riences with
	everything was intact.	pickir	ng up deliveries
Situation when you didn't know	Yeah, the worst experience where she had to pick it up at a		riences with
where and how your package is	tobacco shop.	pickir	ng up deliveries
arriving			
Code (Thematical headline)	Keywords	1	Catagony
Code (Thematical headline)			Category
Introduction	Tim, 24, Graphic Design student, occasional purchases	-	Introduction
Last online purchase	Bought an ice cube tray on amazon. Wasn't at home so the		Dealing with onlin
	delivery guy put a paper at his door saying he was there bu	τ	purchases
	put it in the wrong mailbox.		
Importance of delivery	Quite important. Because he want to have it quickly and he		Dealing with onlin
	in Denmark it really sucks compared to the Netherlands and	d	purchases
	Germany where he can order and have it delivered by		
	tomorrow in the morning and it will actually come on time	at	
	his address with no problem.		
Keeping track of active deliveries	Good question, cause when he orders on all -express it's lik	e	Dealing with onlin
	Christmas, he orders it then it comes 3 months after when	he	purchases
	forgot about it. On amazon he keeps track of it on his amaz	on	
	account.	unation?	
Specific guidelines when ordering	The state of the s		Dealing with onlin
online	prefer if he could pick it up in a store somewhere and he ju		purchases
-	goes that and picks it up, instead of having that whole mish		
	with them coming to his house.	12	
Habits for picking up a package	Going there, buying cigarettes at the same time, probably a	olso	Dealing with onlin
nabits for picking up a package	groceries.		purchases
Cituation when passed to b-	Defendance and Austrian Controls	loor	
Situation when needed to be	When he ordered his old phone and he had to wait at the d		Experiences with
home to pick up a delivery	to sign for it. It was kind of annoying cause it felt like home		picking up deliver
	detention.		
Worst online experience	Once he ordered something from Amazon and it didn't com		Experiences with
	like a month and a half and he had a constant back and fort	10250	picking up deliver
	with them saying he didn't get his package and them saying	3	
	that the package was delivered		
Situation when the package was	(m)		Experiences with
not received at all			picking up delive
Smoothest online purchase	When he ordered at night, ordered super-fast shipping and	it	Experiences with
	came the next morning		picking up deliver
Situation when you didn't know	Every single time he orders at ali-express		Experiences with
where and how your package is	2.5., single time ne orders at all express		picking up deliver
where and now your package is			bicking ab deliver

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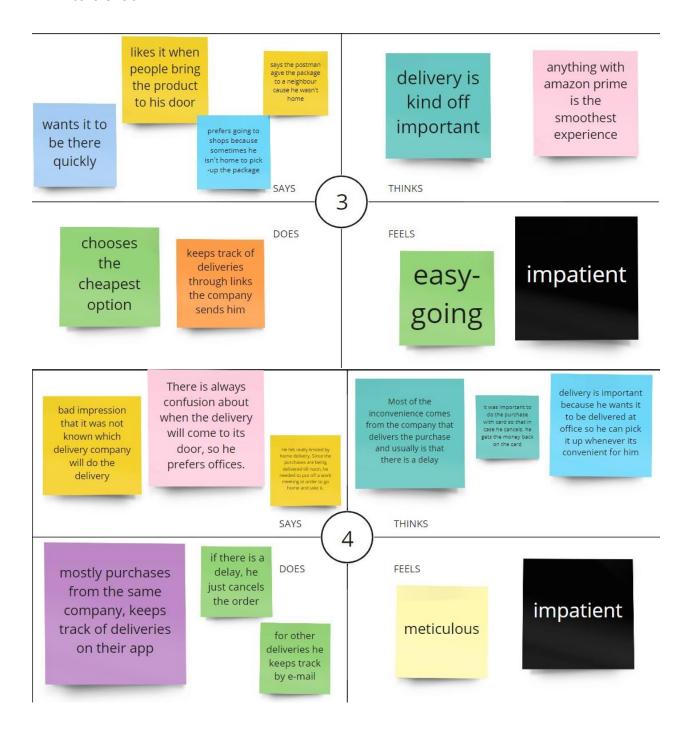
POLY PROPERTY AND ADDRESS OF THE POLY PROPERTY AND ADDRESS OF THE POLY POLY POLY POLY POLY POLY POLY POLY	Category
	Introduction
Bought a book, had to pay more cause there is no amazon prime in <u>Denmark</u> so he ordered it from the UK.	Dealing with online purchases
Kind of important, <u>cause</u> he wants it quickly and likes it when people bring him the products to his door.	Dealing with online purchases
Through links the company sends when he buys something	Dealing with online purchases
Usually chooses the cheapest option.	Dealing with online purchases
Prefers going to a shop cause sometimes he isn't home to get the package.	Dealing with online purchases
	Experiences with
N	picking up deliveries
Once the amazon delivery guy sent him a message that he gave	Experiences with
it to his neighbor instead of him cause he wasn't home but he	picking up deliveries
didn't say which neighbor, so he had to ask around the building and he got it after 3-4 days.	
No, he haven't experienced that.	Experiences with
	picking up deliveries
Anything with amazon prime in Italy.	Experiences with picking up deliveries
More so with PostNord, meaning packages that someone else	Experiences with
sends him and not packages that he buys online.	picking up deliveries
Keywords	Category
Daniel, 28, Full stack developer, purchasing items 1-2 times a week	Introduction
Monitor, the item was available, it showed that it will arrive in 1-2 days; bad impression that it was not known which delivery company will do the delivery; also it was important to do the purchase with card so that in case he cancels, he gets the money back on the card. He was waiting for confirmation at the email.	Dealing with online purchases
Very important because he wants it to be delivered at office so he can pick it up whenever its convenient for him	Dealing with online purchases
Most of the purchases are from the same website and usually he uses the app of the company to keep track of them. In other cases, he looks up for email	Dealing with online purchases
-	Dealing with online purchases
There is always confusion about when the delivery will come to its door, so he prefers offices.	Dealing with online purchases
He felt really limited. Since the purchases are being delivered	Experiences with
till noon, he needed to put off a work meeting in order to go home and take it.	picking up deliveries
Mart of the incommission and from the comment that	Experiences with
Most of the inconvenience comes from the company that delivers the purchase and usually is that there is a delay	picking up deliveries
57 (5)	
delivers the purchase and usually is that there is a delay No, I haven't experienced that, if there is a delay, he just cancels the order	picking up deliveries Experiences with picking up deliveries
delivers the purchase and usually is that there is a delay No, I haven't experienced that, if there is a delay, he just	picking up deliveries Experiences with
	Kind of important, cause he wants it quickly and likes it when people bring him the products to his door. Through links the company sends when he buys something Usually chooses the cheapest option. Prefers going to a shop cause sometimes he isn't home to get the package. Quite often. He had an order where they sent me that he was going to deliver the package so I had to be there then. Once the amazon delivery guy sent him a message that he gave it to his neighbor instead of him cause he wasn't home but he didn't say which neighbor, so he had to ask around the building and he got it after 3-4 days. No, he haven't experienced that. Anything with amazon prime in Italy. More so with PostNord, meaning packages that someone else sends him and not packages that he buys online. Keywords Daniel, 28, Full stack developer, purchasing items 1-2 times a week Monitor, the item was available, it showed that it will arrive in 1-2 days; bad impression that it was not known which delivery company will do the delivery; also it was important to do the purchase with card so that in case he cancels, he gets the money back on the card. He was waiting for confirmation at the email. Very important because he wants it to be delivered at office so he can pick it up whenever its convenient for him Most of the purchases are from the same website and usually he uses the app of the company to keep track of them. In other cases, he looks up for email - There is always confusion about when the delivery will come to its door, so he prefers offices. He felt really limited. Since the purchases are being delivered till noon, he needed to put off a work meeting in order to go

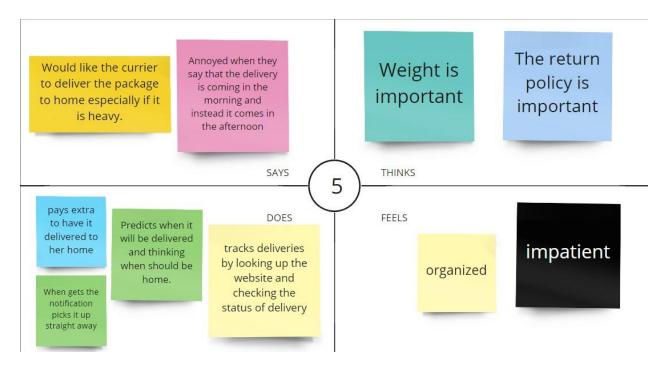
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Code (Thematical headline)	Keywords	Category
Introduction	Kate, student, part-time worker, purchasing goods once a month	Introduction
Last online purchase	Online purchase of swimsuit. Delivery was written to be 3-5 days and the purchase itself went smoothly.	Dealing with online purchases
Importance of delivery	Would like the currier to deliver the package to home especially if it is heavy. It is usually a bit more expensive, but worth it. Weight is important.	Dealing with online purchases
Keeping track of active deliveries	Sometimes tracking deliveries by looking up the website and checking the status of delivery. Predicting when it will be delivered and thinking when should be home.	Dealing with online purchases
Specific guidelines when ordering online	The return policy is important	Dealing with online purchases
Habits for picking up a package	When gets the notification picks it up straight away	Dealing with online purchases
Situation when needed to be home to pick up a delivery	Sometimes annoyed because in text message it says the package arrives in the morning and in reality, it arrives in afternoon and the whole day is wasted. Bad precision with deliveries to home	Experiences with picking up deliveries
Worst online experience	The worst is about heavy packages and glass packages where they don't take care of it and on pick up it is broken. Also, waiting for too long even though company is local	Experiences with picking up deliveries
Situation when the package was not received at all	Doesn't deal with bad websites (all express)	Experiences with picking up deliveries
Smoothest online purchase	The estimation of delivery time was great, which made the experience good, also some extra things added to the purchase inside the box	Experiences with picking up deliveries
Situation when you didn't know where and how your package is arriving		Experiences with picking up deliveries

Theme/Questions	Interview questions
Theme: Introduction	Can you tell me little bit about yourself? E.g. Your name, age, profession, online habits?
Theme: Dealing with online purchases	Tell me about your last online purchase? How did the process go?
	How important is the role of delivery for you when it comes to purchasing goods online? Why?
	How do you keep track of all your active deliveries?
	Are there any specific guidelines you follow when ordering online? (e.g. order only with tracking)
	What are your habits when it comes to picking up a package?
Theme: Experiences with picking up	Can you recall a situation when you needed to be home in order to pick up a delivery? How did that make you feel?
	Could you recall your worst online experience? - consider things like quality of delivery or picking the product up.
	Have you ever had a situation in which you did not receive your package? What was the reason and how did you deal with it?
	Could you tell me about your smoothest online purchase experience? (incl. Delivery) What made your experience satisfying?
	Have you ever had a situation where you did not know where and how is your package arriving? How did that make you feel?
Theme: Closing/ Overview	Any comments? Thank you for your <u>time.</u> ')

10.2. **Empathy Maps** Wants the hasn't item to be quality of is easier to experienced a delivered time where she fast delivery is have it didn't recieve Every delivered to important the package Deliveries her address delivery Ususally that don't doesn't have have tracking should have more than 1 are shady tracking delivery at a time SAYS **THINKS** 1 DOES **FEELS** Keeps track impatient of the eager package by e-maiil That delivery He ali-express is Delievry is it's annoying in Denmark is wants it like christmas, quite you order it and worse than to have to wait quickly forget about it delivery in the at home for until it gets here important Netherlands the package would love to would like to have tracking be able to pick always with it up his package in a shop SAYS THINKS 2 DOES **FEELS** orders on keeps track of outgoing deliverys from ali-express amazon with and aggravated his amazon impatient арр amazon





10.3. Persona

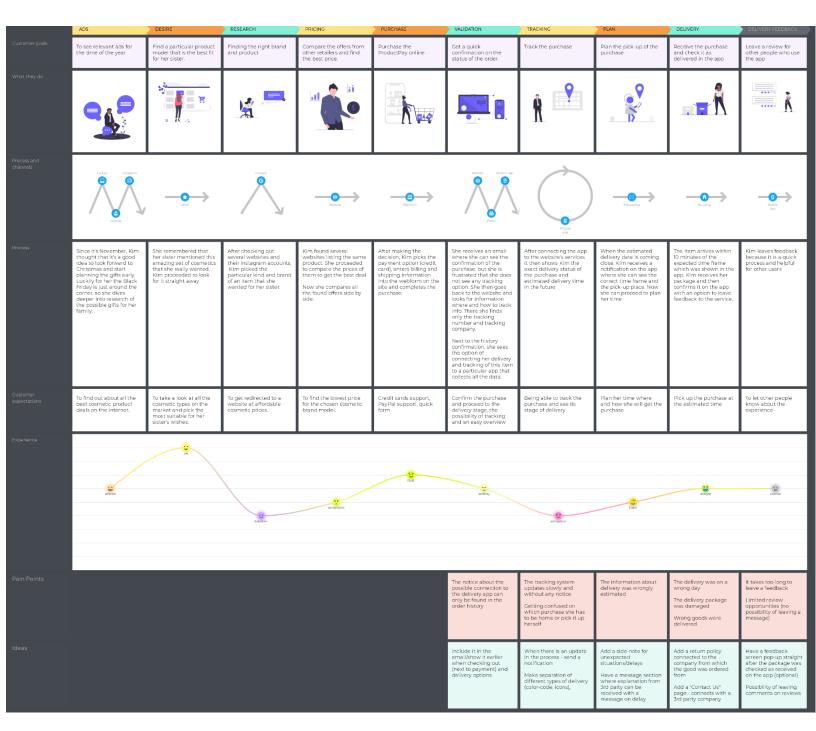
NAME MADKET SIZE **Rational** Kim 100 % Quote During these difficult times, I got to learn how to be more organized and manage my time Background Demographic Recently graduated, working a student job Used to study Graphic Design Female 25 years Loves travelling Aalborg Does online shopping a few times a month due to COVID-19 · Avoids shopping in physical shops Single Busy life, often on the go Student job as a Graphic Goals · Kim's goal is not to waste time on looking for an email with information regarding where should she pick her purchases up from. Kim's goal is to organize her day properly and to know when she should be home Kim's goal is to know where her purchases are at a given time Expectations Kim's goal is to make sure she knows the exact measurements of an item so she uses the best means of transport to the pick-up location Kim expects to have her tracking number always as part of the delivery information Kim expects to know when to be at home Frustrations in order to pick up the delivery Motivations Get a clear overview of the delivery Kim expects to know how big and heavy the package would be if she needs to pick process to manage her time better when her purchase will be delivered it up from a given location. Receive items on time because she Kim finds it frustrating when she always orders something that she doesn't know if she needs to be Kim expects to have easy access to the needs to use as soon as possible. home in order to pick up a package return policy of the company. Be aware if she needs to be home at or take it from some location. Kim is annoyed when she goes to Throughout the day so that she can re-schedule her day. the pick-up location with a bike and the package is unexpectedly too big to be carried. Technology Situation The Black Friday Day finally comes and Kim is extremely excited because she wants to buy Christmas gifts for many of her friends as well as her family. **Skills Tips** vever, she finds it extremely overwhelming that she will need to keep track of all the items she ordered from different websites. She checked beforehand the various discounts that are Experienced in shopping online around the internet and she ended up ordering from several websites. She notices that at the Keeps track of the purchases both from eend of the reservation form there is a field that asks if she wants to add her purchases to an mail and app of the company app where she can easily keep an eye on them. Kim hasn't used an app like this before, so she decides to give it a try. Scenarios When she downloads the app she could see that its a platform that unifies all of her orders and gives it an easy overview of them with helpful information. On the opening screen, she gets introduced to how to use the app and she follows the quick tutorial. She is asked to create a profile and after the completion of it, she decides to go back to the website so that she can connect it with the app. She is asked for authorization in order $to \, connect \, the \, ordering \, history \, from \, the \, website. \, Afterwards, she \, notices \, that \, her purchases \, are \, moved into the \, app \, and \, she is \, happy \, that \, she \, in the purchases are \, moved into the \, app \, and \, she is \, happy \, that \, she \, in the purchases are \, moved into the \, app \, and \, she is \, happy \, that \, she \, in the purchases are moved into the \, app \, and \, she is \, happy \, that \, she \, in the purchases are moved into the \, app \, and \, she \, in the purchases are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved into the \, app \, and \, she \, in the purchase are moved in the purchase are$

can see them. When Kim clicks on one of them, she is relieved that she can see all the relevant information about them such as estimated delivery them.time, how the delivery will be done, the measurements of the package and tracking number.

 $Kim\ likes that she can have an overview of her purchases for Black\ Friday\ which motivates\ her to connect more we bsites to her app because it$

User Journey Map 10.4.

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10.5. Group agreement

Cooperation agreement, Multimedia Des	sign	Class and group number:		
		mmdi0919 Group 4		
TARGET: What is the group's joint targ	et with this project?			
Which knowledge, skills and competence	ies do we want to develop togeth	ner?		
Which personal, academic, and social sk	ills do we want to work with ind	ividually?		
The joint target of the group with this project is to tackle and find 2 solutions for the e-commerce wicked problem, meeting our deadlines. We want to use our experience with UI/UX design and design thinking to find a solution that will benefit others and meet our own expectations.				
EXPECTATIONS: What do we expect of work hours and time, etc.	of one another with regard to turn	ning up for lectures, participation in group work,		
We expect each other to be at lectures as much as possible, unless previous engagements are made. We will agree on deadlines and divide our group work fairly and evenly.				
VALUES: What values are we emphasizing and how will we ensure that we retain our focus on them?				
We will emphasize the value of quality, making sure that we don't cut too many corners and do everything on time so we don't end up sacrificing quality for actually finishing the solutions.				
HOW SHOULD THE GROUP WORK: Which rules do we agree can help us reach our target and fulfil our expectations?				
What can we and must we - and what should we and must we not?				
If we end up having a problem or some kind of complication that will prevent us from doing the work, we let each other know so we can overcome the obstacle instead of not saying anything and putting us behind schedule.				
CONFLICT RESOLUTION AND CONSEQUENCES: How will we address and resolve conflicts?				
How will we enforce the rules that we have agreed together and what will the consequences of breaking them be?				
We will resolve conflicts through conversation and tackling the root of the problem, being honest and fair with each other				
above all else. We will hold each other accountable for enforcing the rules and we will agree on the consequences at the time of the				
We share these goals, expectations, values and rules and agree on how to enforce them.				
Name and signature:	Name and signature:	Name and signature:		
Emir Hadzic Emir Fladzić	Radina Marinova	Viktor Cebotarjov		