**Exam Questions 2021**

**Lo-fi Prototyping**

**Why is it important to start with lo-fi prototyping in a design process?**

In your design process it is important to be able to visualize your ideas and make them into something tangible for you to perform testing on it before making the actual product. Though rough testing before initial release has shown to increase product success a lot and you will receive a lot less negative feedback than someone who did not perform proper testing on their product. We need prototypes to ensure that the product works as intended and to find out if users in the target group can use the product. We use lo-fi prototyping to have a quick and easy way of getting a tangible version of your design, with primarily focus on finding out if everything functions as planned and that it works, and less focus on appearance and how nice it looks. Some reason why its important to start with a lo-fi before moving on to hi-fi: its cheap/cheaper than a final prototype, it is fast and easy and can be clarifying to the team (everyone gets to see a first version of the protype and there is no confusion). It also gives some form of interactivity for both developers and users.

**Wireframes**

**What is a wireframe?**

A wireframe is a 2D overview of the “skeleton” of the website or design. It shows us what the page structure is supposed to be, layout of the page, architecture, user flow, functionality and intended behaviours. Colors, styling and graphics are kept low due to wireframes purpose being to show the structure and layout more than how pretty the page is.

**What do you use it for in the design process?**

We use wireframing in the design process to get a clean overview of how the structure of the website is supposed to be. This is done early in the process to clarify to all team members how the page is supposed to be and how the layout is. This is mostly used by UX designers which tasks is to plan out and design the user side of the application. It is commonly used before and coding takes place, this to avoid confusion when the coding starts. With a wireframe the developers get a clear image from the UX designers how the page is supposed to be. Wireframing takes place in the early and explanatory stages of the design process, often before prototyping.

# **Gestalt Laws**

**What are gestalt laws?**

Gestalt laws is based on the idea that our brain will attempt to simplify and organize complex images or design consisting of many elements, by trying to arrange all the separate parts into one and try to create one big thing as a whole, rather than just a series of separate elements. Human brains are built to see structure and patterns to better understand our surrounding and what perceive.

**Pick two, describe them in more detail, and give examples of how we can use them in user interface (UI) design.**

1. Similarity: This principle states that when things appear to be similar to each other, we group them together. We also tend to think that if they look the same, they behave the same. In UI design we can use this by using a mix of colors and shape to group stuff together that are related or that have the same function. We do this to distinguish between different functionalities on our websites., For example, a navigation bar at the top of our menu can consist of multiple buttons for different pages. These can have the same shape and colors, and we would think that perhaps these are related and do similar things. This navbar can have a different color than the remaining main page, telling us that there is a separation between these two groups, and they do different things. Another example is how one can use blue font color on all text that is “clickable” and “redirectable” to new pages or websites (URLs). You group the clickable text/links together by using the same blue color and the user would think that they have similar functionality by standard.
2. Proximity: this principle states that things that are close together appear to be more related than things that are spaced farther apart. This overrides colors and shapes, seeing as you can have two groups with the same colors and shapes, but if you drag them apart from each other and have space between the user will perceive them as two separate parts/groups. This can for example be used on a news website where you have images, titles, and text for every article. All the articles have an image, a title and text on the frontpage, but the articles are not related, they are completely different news articles. But you group the image, the title and the text related to one article together and leave some space between that article and the next one in line. We see a clear difference between articles, and we see that they are not related, even though all of them have the same colors and shapes (all of them have images, a title in bold text and a smaller text beneath).

# **Memory limitations**

**There are many UI design implications of long- and short-term memory limitations, such as displaying reminders, highlighting search terms in results list, avoiding modes, autofilling forms, and providing instructions. Pick two and describe how these implications address memory limitations and influence user experience.**

When we talk about memory in humans, we focus on two types: long-term and short-term. Long-term you can remember years back, while short-term are new stuff you see daily where most of it disappears within seconds. When visiting new websites, we focus on the short-term seeing as we are most likely designing a new website and testing our user experience on new users seeing it for the first time (intuitiveness etc.).

Reminders: Users may forget what they last did on the website or what they are supposed to do next, or maybe the user simply don’t want to remember it. He is not on the website to test his IQ or how good he is a problem solving. Therefore, being consistent with displaying reminders and tips to the user can be beneficial. Remind the user of previous actions and initial goals so the user does not get lost and give up. On a shopping website for example, our goal as the owner is to make users clicks convert to purchases. Losing money due to your website being confusing and users giving up and leaving, is not a good business plan. Typical reminders on a website like this can be a bar at the top of the page showing latest page the user viewed/completed and showing all the upcoming pages he needs to view/complete to purchase his items. Example: Shopping Cart -> Login/Register -> Delivery Address, Name, how to deliver etc. -> Enter bank info/purchase -> Successfully purchased.

Highlight/remind of search terms: the terms that generated the result the user is currently seeing. When he is typing in his search words in the search bar and click search, it is not guaranteed that he will remember the exact words he typed in a couple seconds earlier. He will be scrolling through the results and in the matter of seconds it could be forgotten. What if he exits the site and wants to find this exact result back? If he has forgotten what he searched for, he might have to spend some time trying to remember it. Therefore, it is smart to list the exact words the user tried searching for when he hit search, as well as some related words that might bring him closer to what his goal is. This avoids confusion and make navigating easier for the user.

# **Clean-up action**

**What is a clean-up step or clean-up action?**

**Give one example of a cleanup step in the interaction with a web, mobile, or desktop application that can be overlooked and explain how this situation can be handled in design.**

# **Responsiveness (UX)**

**What is responsiveness from a user experience perspective? (Do not confuse it with HTML responsiveness).**

A user wants to navigate and reach his goals on the website with the least or without any troubles at all. To succeed here it is important to have a clean, accessible, and easy to navigate website layout. Your layout needs to function on all devices and let everyone, no matter if they have a phone or a laptop, be able to use the website. To make the design pleasing and responsive for the user you need to have the users experience in focus and build and design your website around that concept. You are not making the design for yourself; you are making it for the users in your target group. Your goal is to enhance the user experience as much as possible and eliminate any problems he could encounter, design wise. Make it clear for the user why he is here, what he can do and what the website is for. Be consistent with colours and designs. Reusing the same navigation bar design for every page or having the same font-size or colour can be example of being consistent. This is also an example familiarising your website, making it clear what the website design is supposed to be, what colours it uses and how every element is put together. This should not be kept the same on every device to and is good when it comes to branding your website and making return customers remember you and feel at the right place. Don’t bombard the user with uninteresting and unimportant stuff. Keep the elements to a low and have the bigger picture (what is the purpose of this website) in focus.

**Provide two examples of features or elements that ensure responsiveness in UI and explain how they might influence user experience.**

# **Accessibility**

**How can we make a webpage with images and other visual elements more accessible?**

There are many things we can to to our website to make it for accessible for everyone. Colour choice can be done to make sure every visitor of the site, whether they have perfect vision or struggle with colour blindness, can use the website as intended and they find the website appealing with a good colour palette. You can implement text-to-speech for blind or vision impaired users and have good contrast between elements to make them stand out more. Instead of making your website complicated with a lot of elements and functions you need to spend time finding out how works, have a minimalistic focus when design and try to keep it as clean and easy to use as possible. Super smart people with great problems solving skills as well as people on the other side of that spectre should be able to use your website. Try to keep elements and text as universal as possible. Don’t put something very niche on your website that only targets 20% of your visitors if your website is meant for the remaining 80% as well. Be careful with the use of flashing lights or popups – this can trigger some people’s disabilities. Follow all regulations and compliances and don’t break any rules. Make sure your website and flow of elements looks nice and works on all devices, so everyone no matter what device they have can use the website. Check up on WCAG to make sure you include all users with disabilities. Implement a translate function on your website and try to feature as many (preferably every) popular languages used by your users to make sure language won’t be a barrier.