GUI Prototyping User Study Instructions

Dear Participant,

Thank you for your participation in our Graphical User Interface (GUI) prototyping study. In this study you will take on the role of an requirements analyst, who creates initial GUI prototypes of mobile applications (Android) based on textual requirement descriptions written by customers. The GUI prototypes can be used as a basis for discussions with the customer as well as for the actual development of the application later on. In this study, your task is to read requirements written by the customer and create an initial GUI prototype with two GUI prototyping tools.

In particular, each task is about a mobile application that consists of two GUIs. To better understand how such a task in the user study looks like, we show an example in the following. Please read through the requirements and have a look at the example GUI prototype created based on these requirements.

## Example Task: Product List and Shopping Cart

Requirements:

This is a simple clothing shopping app that allows users to look through a list of products and add products they want to buy to a shopping cart. On the shopping cart, the user can see a list of all the products that have been added so far and proceed to checkout.

GUI 1: The first GUI (product list overview) should display at least four products and each of the products with its discounted price (in *orange*), the original price (in *gray*), an icon to save it to the favorite list and a product image (*clothing image*). Two of the products should also have a discount tag showing the discount percentage (e.g. *"-40%")*. The GUI should have an icon to access the shopping cart, a share icon, a heading *("Men's clothing")* and a menu icon. By clicking the shopping cart icon, the shopping cart GUI should open.

GUI 2: The shopping cart GUI should have a checkout button and a heading *("Shopping cart").* It should contain a single product with the product name *("T-Shirt")* and some additional product details *("size: XXL and color:*

White"), the price and a product number icon. Also the total price should be shown.

GUI Prototype:
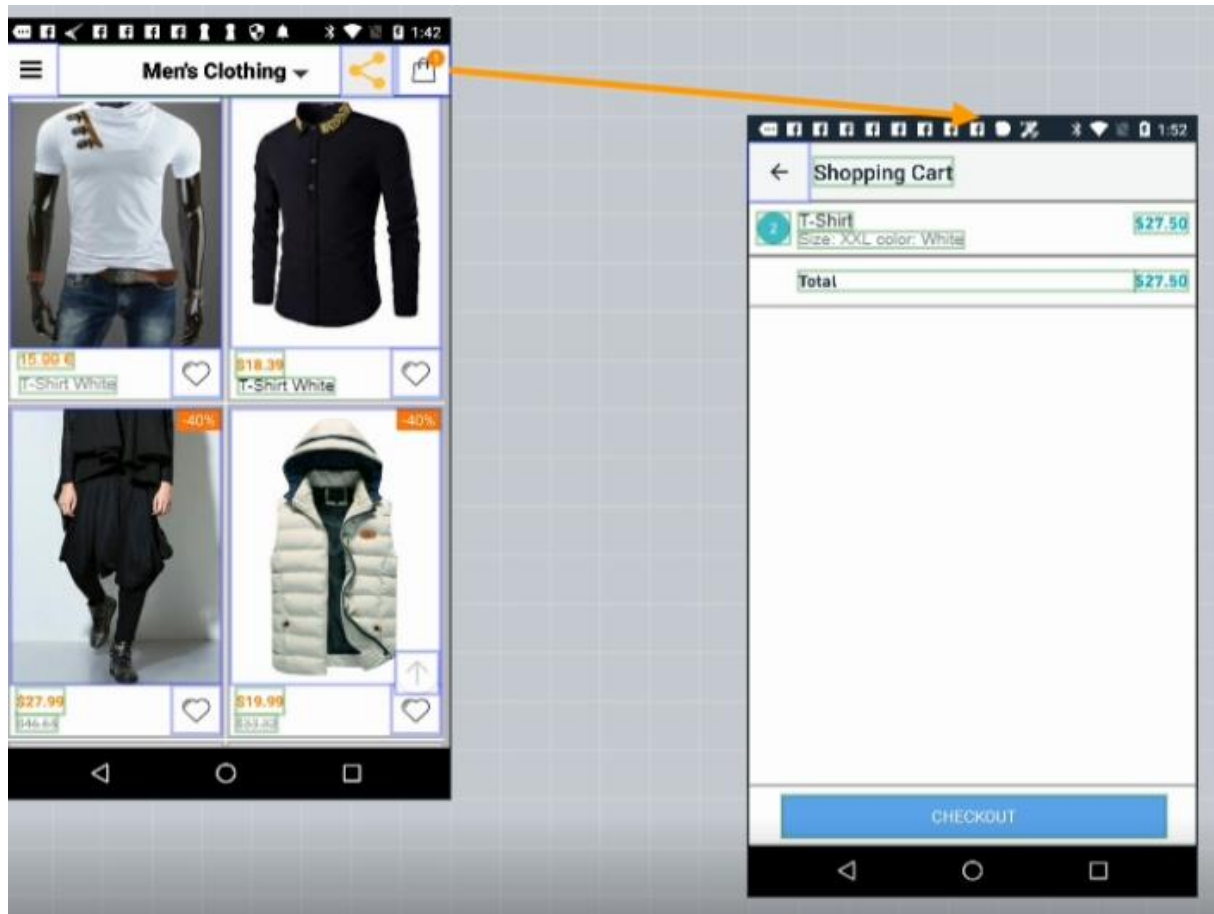
Please note that the two GUIs contain all of the described GUI components. Please make sure that you identify all GUI components required and add them in your prototype. If concrete data for the GUI components is provided (e.g. text, color or image types), you should use this data in the GUI prototypes. If no concrete data is provided, you should use realistic template data in your GUI prototype. For example, if images are required, you should use realistic placeholder images. For example, resources such as images can be taken from Google. To make the prototype more realistic, don't repeat the same data (e.g. reusing the same image or text). Additional GUI components that are on the screen but have not been requested should be avoided.

To get familiar with the first tool, we prepared a short video tutorial showing the most important features that you need to know for the task. Please watch the short tutorial video at:

Omitted for Double-Blind Review

You can now visit the web-based tool and test it on your own as long as you need. If you have any questions, feel free to ask.

After you are familiar with the first tool, the first actual task will start. Please read the requirements of the first task below. If you are finished reading, please inform the instructor of the experiment.

Task 1: Shopping with MyKlarnaApp

Requirements:

This is a simple shopping browser app that allows users to first select their country and second to search for websites and add products to a wish list in order to keep track of products and get discount notifications.

GUI 1: The first GUI allows the user to select their country from a collection of at least seven different countries. The user can click a *"Continue"* button to go to the second GUI or can click on a *"Go Back"* button. Each country should be displayed with its name, a radio button to select the country and a flag image. The heading should be *"Select Country"* and additional text should be added to notify the user that the selected country can be changed afterwards *("After the registration, you can change your language in your profile settings").*

GUI 2: The second GUI represents the actual shopping browser. Users should be able to search or enter an URL. Below the user should see a list of at least the eight top websites. Each of the top websites should have an icon image and a name. The user should also have four buttons: *"Bookmarks", "Wishlist", "History"* and *"Tab".* The GUI should also have a heading "MyKlarnaApp" with a sub header "Your Shopping-Browser". Finally, the GUI should have a footer with five buttons that have an icon and a name: *"Browser", "Inspiration", "Wishlist", "Bank"* and *"My Klarna".*

To get familiar with the second tool, we prepared a short video tutorial showing the most important features that you need to know for the task. Please watch the short tutorial video at:

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You can now open the second tool on your desktop or download it if you haven't done yet. Test it on your own as long as you need. If you have any questions, feel free to ask.

After you are familiar with the second tool, the second actual task will start. Please read the requirements of the second task below. If you are finished reading, please inform the instructor of the experiment.

Task 2: Hotel booking with MyBookingApp

Requirements:

This is a simple hotel booking app. The user can first search for hotels in a city based on multiple criteria, for example, check-in and check-out date and the number of rooms. Based on this search, the user can view a result list of matching hotels and mark them as favorite.

GUI 1: The first GUI enables the user to start the hotel booking. The GUI should contain a header (*"MyBookingApp"*), a sub-header *("Find the best hotels")* and a share icon. The GUI should show an image of a hotel room and the user should be able to enter the city for the hotel search or click a button with a location icon to insert the current position. The user should be able to select the check-in and check-out date. The user should be able to set the number of rooms, the number of adults, the number of children with a plus and minus button and if it is a business travel ("*Travel on Business*"). When the user clicks on a search button, the second GUI should be shown.

GUI 2: The second GUI should show the hotel search result list with buttons to filter, sort and view a map of the results. It should display the city that is searched for and the check-in date with a back button, search button and menu button at the top. The GUI should show a list of at least three hotels each with an image, the hotel name, the star rating, the location, the

number of ratings, the price and an icon to mark it as a favorite.

Finally, please fill out the survey form at the following link. This survey asks questions about the prototyping approach:

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Thank you again for your participation in the study!