ASSIGNMENT 4: USABILITY EVALUATION OF PAPER PROTOTYPE

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Cars.com app

Introduction

This document is written for Part A(First interview). Our first participant for this assignment is a 20-ish college student. He is currently studying computer science at UW-Madison and had some backgrounds in software developing(back-ended). Since we were friends for a long time, we knew that he was interested in exploring new cars. At the same time, he also had the experience to buy/sell cars. Although he did not use the app before, we believe he had operated on different search engines to find his cars. Therefore, his skill level should be fall in the middle in using the product. We selected him as our participant mainly for two reasons. The first reason is that we believe he has the ability to perform the tasks and will not stuck forever if encounter an issue. And second, we think it might be better to get someone who is currently working/studying in the similar field so that we can receive better feedbacks and thus improve our program.

PROCESS OVERVIEW

Session outline and timing

The interview will be about 10 – 15 minutes long. We will let users perform three tasks using our Cars.com app prototype. The session will take place at one of interviewer's apartment.

Before interview - Gather personal info and informed consents

Before the interview, we will let our users know about the purpose of this interview. We will also inform him/her about the confidentiality.

We also asks user some questions for his/her background to the app.

E.g.   Have you ever used this app before? What about similar car searching engines?

Can you use mobile devices fluently?

Before interview – Describe the tasks

We will describe our tasks to the interviewer based on the task description below.

Task description

1ˢᵗ Task: The user needs to find the two cars specified below and add both cars to the "Saved" tab. *The user should check the car information to ensure that it meets the requirement exactly.

2ⁿᵈ Task: The user is then required to compare and pick the one that he/she likes the most under "Saved" tab(The user should check the photos of the car if available).

3ʳᵈ Task: The user should remove both cars from the "Saved" tab.

Car Info:

First car: Toyota Camry

Second Car: Honda Civic

Requisites: 1) *2018/2019* model   2) *100* miles from the location(*ZIP Code 53715*)

3) *Black* exterior color 4) *Keyless start* **AND** Moonroof feature

5) mileage under *20,000 miles*

6) *cheapest* of all

During interview

We will let our users perform the tasks. While doing it, we encourage them to provide feedbacks and observe breakdowns. We will try to keep our test environment quiet to ensure our users go through the process smoothly. We will also provide several questions based on our prototypes and some forms of help if user stuck during the process..

E.g.   What do you think about login prompt at the top?

Anything else you want to say about the prototype?

PROCESS OVERVIEW

What we plan to say

I've notice that you are struggling with …

Why did you perform/not perform that?

May I interrupt for a bit since I saw you did….

Line Number	Speaker	Transcription	Annotation
L1-001	Interviewer	Alright are you ready? Can we start now?	
L1-002	Participant	Yeah I am ready.	
L1-003	Interviewer	OK, so what you are going to do today is performing several tasks on the app called Car.com. You will need to find two specified cars and compare them and finally, find the one that you like the most.	One of the interviewers showing the tasks to the participant on the computer screen.
L1-004	Interviewer	You will not use the real app but our design prototype that is printed on paper. So, for example, if you want to interact with those buttons, you just click them, and I will shift to the next paper(screen).	Interviewer is trying to let the participant know how things will work.
L1-005	Participant	Oh OK, I get it.	
L1-006	Interviewer	If at any time you encounter any problems, please do not hesitate to say it out. We want to know your thoughts and how can we make the design better.	
L1-007	Interviewer	If you are clear, we can start the tasks now!	
L1-008	Participant	Alright. So I will start with the first task. Finding these two cars and add them to the "Saved" tab…. OK	
L1-009	Interviewer	Sorry may I interrupt for a sec?	The user starts to search for the car. Although on the top of the home page, there is a prompt saying that "Login to enable all functions".
L1-010	Participant	Yeah sure	
L1-011	Interviewer	When you beginning to search, did you see the small prompt at the top?	

L1-012	Participant	Yeah I saw it, but I didn't go register because I thought I'm just searching for the cars first… I didn't know what specific functions require me to sign up. I just skipped it and try to complete the task faster.	
L1-013	Interviewer	Oh, OK I get it. So, if you know that you are going to need an account to save the cars, you will register at once right?	
L1-014	Participant	Yeah of course.	
L1-015	Interviewer	Since you skipped the register process, I will just show you the register interface. Do you have any problem with that, or there might be some potential improvements that you see here?	
L1-016	Participant	Hmmm…. I think it is fine, nothing really needs to improve.	
L1-017	Interviewer	Alright, Let's move on!	**The transcripts above(include this line) describe user's first breakdown**
L2-001	Participant	Now I need to go to the "Saved" tab….	Starting from this line, the user already finished the searching process and add both cars to the "Save" tab.
L2-002	Participant	OK done. Now compare both cars… Wait, how do I compare?	
L2-003	Interviewer	There is a compare button, you didn't find it?	The user stuck for a while; he seems struggling to find the compare button
L2-004	Participant	Yeah I do not find it…	
L2-005	Interviewer	It is at the up-left corner.	Since the user seems confused, we help him find the button
L2-006	Participant	Oh.. It's here.. Well… I don't think this is a good spot to place your compare button….	

L2-007	Interviewer	Yeah I notice that you struggled for a while.	
L2-008	Participant	I think it is not obvious. You know, when people use phone apps they always assume the up-left position to be something like a "back" button. Like… back to the previous interface you know…	
L2-009	Interviewer	Oh yeah I get it. That's fairly reasonable! So, do you have any idea on where I should put that button?	
L2-010	Participant	I think you can put it somewhere near the "trash can" icon. I believe it is easier for users to see..	There is a trash can icon at the top-right, that the user thinks may be a good position to put our compare button.
L2-011	Interviewer	OK, seems a good choice! I will add that to my note.	
L2-012	Participant	Good	**The transcripts above(include this line) describe user's second breakdown**
L3-001	Participant	Now let me compare those two cars..	Participant already selected both cars and open the compare interface
L3-002	Interviewer	I have one question here. So, we use a "camera" button at the top here. When you click it, it will bring you to a new page which contains the photos of the car. Do you think this is a good choice?	Originally, the app had a position to show car photos, but for some reason the photos are not available to see. As a result, we changed it to a small icon which link to the car image page.
L3-003	Participant	I think you should directly show the car image here.. that will be more convenient…	
L3-004	Interviewer	OK, what you just said was the initial design of the app.. but for some reason the photo can never been shown, so we changed that..	**End of the third breakdown**

L4-001	Participant	So, I will delete both cars from the 'saved' tab… and… I think I've completed all the tasks!	The participant now finished the tasks.
L4-002	Participant	I do think there is an extra problem. I've noticed that there is a "Saved search" button in this saved tab. I am not sure what it supposed to do..?	
L4-003	Interviewer	It is used to save your selected filters, so you can resume the search next time when you open the app.	
L4-004	Participant	Oh OK, I get it. But why can't you just put it to the home page… The purpose for that home page is to open the filter and make a search... right? I think.. if you can put that there, we can have quicker access to our previous searches.. That is my own opinion though..	Participant gives us new idea. We never thought about that before.
L4-005	Interviewer	Yeah…. I think what you just said was quite reasonable.. I will consider about it.	
L4-006	Interviewer	What if I move that "Saved search" button to the home page somewhere, and put the "compare" button at that position instead? Do you think that's good?	
L4-007	Participant	I believe that's a nice choice! So, you don't need to worry about the "delete"(trashcan) button.	Update on the second breakdown, getting a solution. **End of the fourth breakdown**
L5-001	Interviewer	OK! Anything else you want to add here?	
L5-002	Participant	Yeah I have one last thing to say. I notice that you give me a prompt when I was using the filter. It let me choose to include all features or individual features in the search, I think it might confuse the users. Maybe you can make it clearer?	The "AND" "OR" condition in the search

L5-003	Interviewer	Yeah I will think about it. I was not sure how to make users choose the condition properly, that's my rough design. I will make sure to improve on that later.	
L5-004	Participant	Sounds good! Other than that, I have nothing to add here.	
L5-005	Interviewer	Alright, thank you!	**End of the fifth breakdown**

FEEDBACK & CRITICAL INCIDENCE

Record your observations in the table on the following page, based on your observations and notes taken during the usability evaluation

Description of columns in the table are as follows:

Prototype Screen/Page:

Which screen of the user interface the user was evaluating at the point of feedback/critical incidence/problem.

Reference:

This column should be used to relate an item back to a specific point in the session.   The reference can be to a specific line number in the transcript above or a time code.

User feedback / critical incidence / problem:

This column may contain:

- Feedback (positive or negative) given by the users, **or**
- Critical incidences (breakdowns or problems encountered by users) and/or mistakes committed by users.

Reason for negative feedback / breakdown:

Briefly explain the reason for a breakdown or any negative feedback.

Scope:

Describe the scope of the feedback or the problem; include whether the scope of the issue is throughout the product or within a specific screen or screens. If the problems are specific to a page, include the appropriate page reference.

Severity (H/M/L) :

Your assessment as to whether the implication of the feedback is *low*, *medium*, or *high* severity, and the **justification** for that rating.

Way(s) to rectify:

Suggestion for the modifications that might be made to the user interface to address the issue or issues in this row. You MUST include trade-offs to be credible. If you can't think of some bad trade-off, say so.
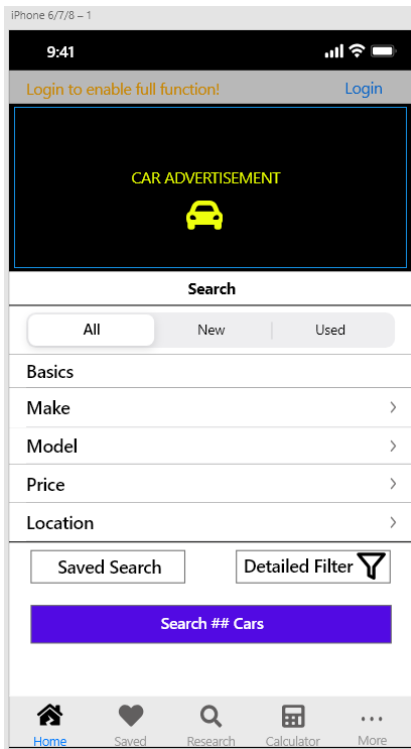
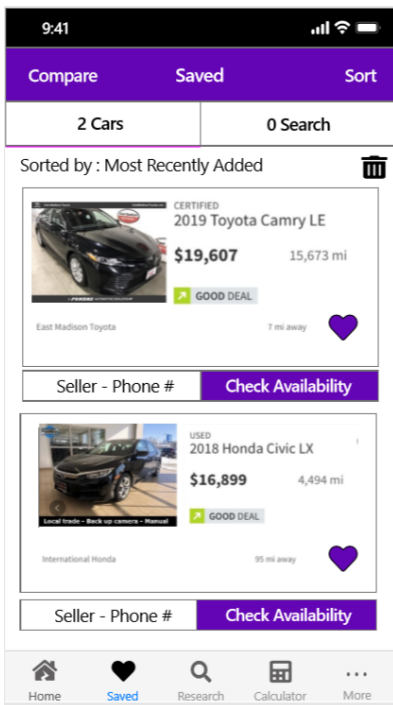| #	Prototype Screen	Reference	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope	Severity (High/ Medium/ Low) and **Justification** for giving it that rating	Way(s) to rectify and any **Tradeoffs** (i.e., why the fix might not work)
1	See Picture 1	L1-012	The user did not follow the prompt to login. He didn't think he will actually need to login in and skip it so that he can complete the task faster.	User did not register for an account here. Our purpose is to let users register account first so he can use the save function without any interruption. As a result, the login prompt failed to function.	This is a "prompting" issue. It is with in the specific page – Home page.	**Low** We believe this breakdown has low severity because it does not influence the task performance. The user may just feel a little annoyed when a prompt saying "Register" pop up when they are trying to save the car.	We might start the Home screen with a pop-up menu saying that the user need to register an account to activate all functions. This action forced users to register and can make them feel annoying.
2	See Picture 2	L2-008 to L2-010	The user did not find the "compare" button when he tries to compare both cars.	Our user thought that the place for that "compare" button should be a "back" button. We should change it to a more obvious position.	This is a problem that deals with our controls. It is specified to our "Saved" tab.	**High** This is a severe problem because it makes our user unable to perform the tasks.	We move the button to the top-right of the screen next to "Saved cars" button. It might be a problem because "Saved car" button switch to the "saved car" tab, while this

							"compare" button enables the compare function. It might not be a good choice to put buttons with different kinds of functions together.
3		L3-003 to L3-005	Our user feels that the photo button should be replaced with the car photo.	Users feel not comfortable because he cannot see the car image directly. He feels like putting a car photo here is more direct.	It is an issue in the "compare" tab that shows car information	**Low** We believe it is not a big deal since the original design was putting the car photos. We changed it just because the photo image in the app was not available to see.	We re-adopt the old design and put the car photo on the compare tab. The flaw is that, we cannot see multiple car photos, but only the first one.
4		L4-002 To L4-004	Our user was confused about the "Saved search" tab.	User feels that it doesn't make sense to put it in the "Saved" tab. Instead, putting it in the Home page will allow faster access to the search.	The scope is the "Saved" tab	**Medium** We believe it has medium severity because convenience is one major factor that attract users to use the app.	We decide to move this button to the Home page. Although it is a quicker access, some users might want it to be categorized in "Saved".

| 5 | [See Picture 5](#) | L5-002 | User does not like the filter condition prompt message. | This is a breakdown because it might confuse the users. After we reexamine the prompt box, we feel that it is not clearly explaining its function. | This is an issue with one of our confirmation boxes. | **Medium** We believe it has medium severity because it confused our users. May misguide the search. | We create a new prompt box which allows users to drag filter items below "AND" and "OR" conditions. This might be better than the old version, but it still needs some form of explanations to help user understand its function. |

Picture 1:

Picture 2:

Picture 3:

	Camry	Civic
Model		
Price		
Mileage		
Exterior Color		

Compare · Done

Picture 4:

Picture 5:

Confirmation Message

Do you want your car search include all features selected or individual features selected?

ALL

INDIVIDUAL