**Human Computer Interaction CS449 – CS549**

**Assignment-3 Cognitive Modeling in HCI**

Students will use CogTool to produce a Keystroke-Level Model of a skilled user choosing a music from a certain artist via mobile application.

**Deliverables:** **Report** (you may include any supporting figures, diagrams, graphics, photographs, sketches etc. ~2-3 pages) and **CogTool project file**

**Grading:** 10 points

**Objectives**

• To learn to model task execution behavior of a skilled user with CogTool.

• To practice making predictions of task execution time and use them to focus design

effort.

**Directions**

• This is individual homework so do it by yourself.

• Get the modeling tool, CogTool, and its Tutorial and User Guide from www.cogtool.org

• Mobile app images you will need for this homework are available in SUCourse

Compare & Contrast two music streaming applications

**Compare & Contrast two online shopping applications**

You will be modeling a skilled user **searching for the music band** “Alice in Chains,” playing, and adding the track “Nutshell” to a playlist on both the “Spotify” and “YouTube Music” mobile applications. Required tasks are as follows. Assume that the application is open.

**Spotify**

1. Start at the home page.
2. Click on the application’s search button.
3. In the search field, type “alice in chains” on your keyboard.
4. Read the results till fifth line and select “Alice in Chains” in the fifth line.
5. In the artist’s page, scroll down to see the popular albums.
6. Click on the “Jar of flies” album.
7. In the track list page select the “Rotten Apple” track.
8. At the bottom of the page click on the currently playing music bar to open the song's page.
9. On the top right-hand corner, click on the button to add the music to a playlist.
10. Click on the “new playlist” to create a new playlist.
11. Name the playlist as “test” and click “create”.

**YouTube Music**

1. Start at the home page.
2. Click on the application’s search button.
3. In the search field, type “alice in chains” and press the search button on your keyboard.
4. Select the artist from search results.
5. In the artist’s page, scroll down to see the albums which are listed chronologically.
6. Click on the “albums”.
7. Scroll down to see the “Jar of flies” album.
8. In the track list page select the “Rotten Apple” track.
9. Click on the “Save” button to add the song to a playlist.
10. click on the “New playlist” button.
11. Name the playlist as “test” and click “create”.

**What will you do?**

Build a project with CogTool that can execute this procedure using the given images. (NOTE: You will NOT need any images other than the ones given)

Make sure you think hard about the types of widgets you use. Keep the table of widget types (Appendix B in the User Guide) open and next to you when you are doing this assignment and refer to it often. Consider all the widget types; don’t just pick the first one that looks like it might work.

Build a project that has all the widgets necessary to do this task. Create a task called “Playing a Track”, demonstrate how to do this task, and get a prediction of how long it will take for Spotify and YouTube Music.

**Your report must include the following sections and answer the questions:**

**1.** Which shopping procedure is faster, Spotify or YouTube Music?

**2.** Why is the faster procedure faster?

Answer this question by referring to CogTool’s models , and also readings (week-5 and week-6), NOT just common sense. Use the scripts that CogTool generates or the visualizations of the scripts and refer to things you see in those parts of CogTool to explain why the faster procedure is faster. Feel free to include pictures in your report if it is easier for you to explain your reasoning using pictures.

**3.** How can you make the slower procedure faster? How much time can a user save with this change?

**4.** References

**Important Information**

CogTool doesn’t propagate changes to designs after you have already demonstrated scripts.

* If you change the design after demonstrating a script, you MUST delete the script and demonstrate the task again to give accurate predictions – fortunately, it’s fast to demonstrate tasks.

**Deliverables**

* Create project folder with the following title:

CogTool HW <LastName>\_<FirstInitial>

For example, Ali Tan’s folder would be called CogTool HW Tan\_A

This folder contains two files:

1. A CogTool Project file (.cgt) with the following title:

<LastName>\_<FirstInitial>\_HW.cgt

1. Attach a report file that answers the questions, presents and justifies your design. Name this file with the following title:

<LastName>\_<FirstInitial>\_HW

* Create zip file from project folder with the following title:

CogTool HW <LastName>\_<FirstInitial>.zip

* Upload your zip file to SUCourse

**Grading will be based on:**

* Incorrect file names
* A CogTool Project file that doesn’t run
* Incomplete set of frames in the design
* Unreasonable/Missing types of widgets in the frames
* Unreasonable/Missing transitions between frames
* Unreasonable/Missing scripts
* Unreasonable/Shallow answers to the questions without references to the resources