1. URL: commandmaps279.herokuapp.com
2. In our logs, we are capturing:
   1. The session id of every user
   2. Age
   3. Gender
   4. Country
   5. The time the correct button was clicked – registers with the name of the button
   6. Delta - time lapsed since the last button press
   7. Wrong button presses – records whenever the user presses a wrong button
3. Independent variable – The CommandMaps interface
4. Dependent – Measured the time taken to click every button in the task list
5. Control variable – Approximately 1/3 of the buttons on the task list will be on the same tab.
6. Random variables – The time of the day when the user participated in the experiment is random
7. Things changed from the real study –
   1. One task per interface.
   2. The users click one button after another. As of now, there is no way of resetting their pointer after every button-press.
8. Things that were unclear in the paper and we had to figure out on our own –
   1. How to get the demographics information. We didn’t have a lab where we could test in person and collect the same information. To mitigate that, we made a form online which associated the demographics information with every session id.
   2. We had to do it on the web instead of actual MS word. This was a design challenge since we had to figure out how to recreate the look and feel of the MS word ribbon and the CommandMap, on the web.
9. Internal validity threat –
   1. Our current version gives the participant the ribbon first and then the CommandMap interface. This might allow the participant to become very familiar with the interface and hence have higher times on the CommandMap interface. In addition, it is possible that some subjects lose interest in the experiment or are distracted before they use the second interface.
   2. We plan to mitigate the above by randomizing the test so that about 50% of the participants get the ribbon first and vice-versa.
10. External validity threat –
    1. Non-representative sample – Our friends are Harvard college students. They tend to use the MS word application pretty heavily and are familiar with it, which will result in faster times throughout the experiment. This will be partly mitigated once we put up the experiment on MTurk.
    2. Participants will press buttons one after the other which is not how MS word is generally used. We plan to try resetting the pointer after every press before we test.