Edit / add to existing work

* Abstract / 5 pts
  + Yichen
* Introduction / 5 pts
  + Yichen
* Related Work / 5 pts
  + Daniel

Write from scratch

* Understanding Context of Use: Contextual Inquiry / 10 pts section 4.1, 4.2, 4. 3
  + Jerry
* Understanding Context of Use: Contextual Inquiry Results / 25 pts 4.4
  + Isaac, Franklin
  + Write about all the themes that have emerged in the affinity diagram
    - talk about each theme by itself and back it up with lower-level notes (e.g. interpretations, sections, etc.) in the affinity diagram
    - Each theme is a separate section in the report
    - Each blue note is a separate paragraph under the theme
    - Each yellow note is the evidence described in each paragraph
  + Reflect on different existing tasks users perform
    - refer to figures of consolidated sequence diagrams
  + Flow of information between different stakeholders
    - refer to the 1 consolidated flow diagram
* ONE PERSON
  + AFFINITY
* ANOTHER PERSON
  + SEQUENCE
* Jerry
  + FLOW
* Discussion / 5 pts 10
  + Franklin, Isaac
* Conclusion / 5 pts
  + Yichen

Work on it together

Daniel

* User Requirements / 25 pts section 5
  + **Everyone** come up with 3-5 user requirements
    - Has to be grounded in the interpretation notes
    - Have at most user 1 requirement in the document per person

NONE ASSIGNED BC ITS TOO EASY JUST ADD

Appendix stuff - easy

* C.4 Consolidated Sequence Diagrams / 5 pts
* C.5 Consolidated Flow Diagrams / 5 pts
* C.6 Affinity Diagram / 5 pts

Understanding Context of Use: Contextual Inquiry Results / 25 pts 4.4

**User frequently uses their phones with one hand throughout the day (Affinity Diagram)**

The contexts in which individuals need to use their phones with one hand is usually when multitasking. Individuals are usually doing something before or while needing to type with one hand. Some participants require typing with one hand while multitasking on daily tasks. For instance, one individual needed to brush their teeth while messaging their friend about a homework assignment. Another context is when the user is walking or actively doing something. These activities often required users to switch their attention back and forth between the phone and their immediate environment, emphasizing the importance of intuitive and efficient one-handed phone operations for user safety and convenience.

**Keyboard layout hinders the user's ability to enter text (Affinity Diagram)**

Almost all participants faced challenges with existing keyboard layouts that hinder their ability to enter text. The users often find it difficult to reach keys on the far edges or opposite side of the phone display while operating one-handed. This results in constant readjustment to their grip of the phone, which in turn causes accidental taps, reducing typing speed and efficiency. In addition, the placement of certain keys is difficult to access with only one hand. This is particularly the case for those buttons on the top left and right corner of the screen, where the thumb is unable to reach. Participants often struggled to locate characters like the question mark, which they expected to find at the bottom right key, mirroring a standard keyboard layout. This unfamiliarity slowed down their typing process.

Punctuation and symbols are another issue that was identified.. Accessing specific punctuation marks requires users to switch keyboards, but the switch key is inconveniently placed on the far side of the phone screen. Most users reported that they only use a handful of punctuation marks frequently, implying that the current design might not be optimized for the majority's needs. Some even resorted to skipping punctuation or capitalization entirely because of the difficulties posed by the layout. Lastly, one participant just decided not to capitalize words because of the inconvenience brought by the keyboard’s layout.

**Users usually find some assistive keyboard technologies unhelpful (Affinity Diagram)**

Almost all participants also used various assistive keyboard technologies such as autocorrect or the swipe type feature. However, many participants found that these assistive technologies are not used very effectively. In the case of autocorrect, many participants highlighted cases where autocorrect suggestions are far from or significantly different from the intended word. In addition, one multilingual participant found that autocorrect is intrusive as it tried to correct words across different languages. As a result, one participant resorted to manually capitalizing letters instead of replying on auto-capitalization.