Initial Design and Low Fidelity Prototypes - Individual Design

ToneCheck is a tool designed to assist in the creation and understanding of personal messages. In particular, it uses NLP methods to understand the changing tone of previous messages, offers suggestions based on this understanding during the creation of a new message, and allows for streamlined and tonally-aware searching and context display. Furthermore, it uses state-of-the-art emotion detection algorithms using the front-facing camera to detect the current emotional state of the user in order to prevent errors in tonal translation. Finally, it creates inferences based on the speed in which a user has typed a message and areas which they spent a particularly long amount of time on in order to isolate insecurities.

Initial Design and Low Fidelity Prototypes - Individual Personas

Persona: Sam

Sam is a young professional who belongs to Gen Z. He is adverse to phone calls, and handles interactions with those he is close with very differently than acquaintances. With his friends, Sam doesn't mind spelling or grammar errors, and may sometimes want to keep them so that his messages appear more genuine. With acquaintances or colleagues, he is much more likely to want to send a grammatically correct and tonally neutral message. He tries to look at the previous context of a conversation and information discussed so he doesn't accidentally repeat anything.

Relevant Interpretations:

GC-U05-1-1 (They looked at the previous context of the conversation in order to check if the plans had already been discussed.)

GC-U05-2-7 (They consider asking someone they trust to look over the message before sending it.)

GC-U05-2-9 (The participant might leave some grammar or spelling errors in on purpose to seem more genuine.)

BG-U04-102 (Partially read message preview until they decided to respond and opened the message thread)

ZY-U02-1a-06 (The participant read the message to make sure there are no errors, and the tone is sincere and honest, then sent it to the friend.)

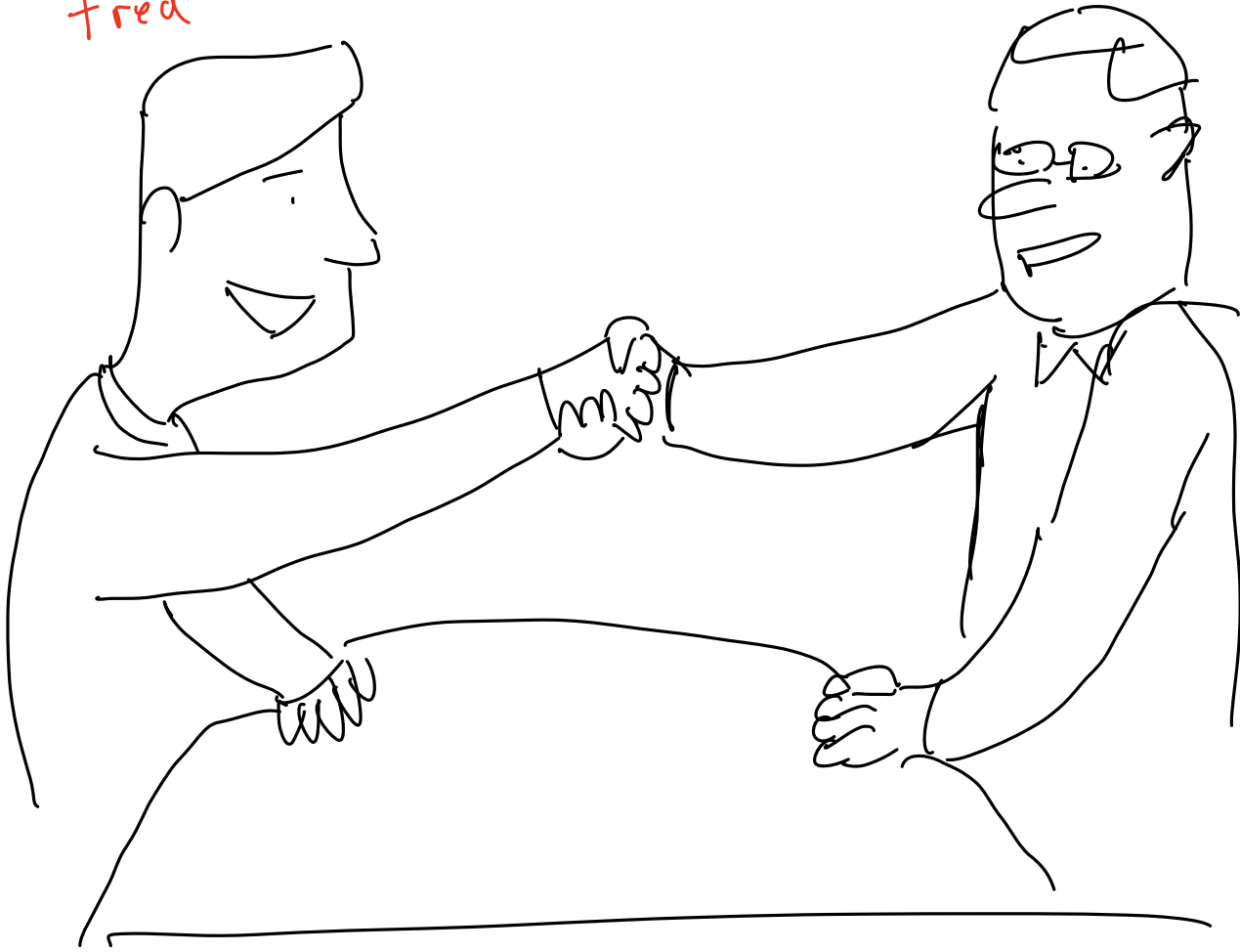## Initial Design and Low Fidelity Prototypes - Individual Sketches

See Below.

Initial Design and Low Fidelity Prototypes - Individual Storyboards

See Below.

Fred

Sam

Fred and Sam are business associates who are meeting for the first time in person. They make plans to meet next Wednesday for lunch
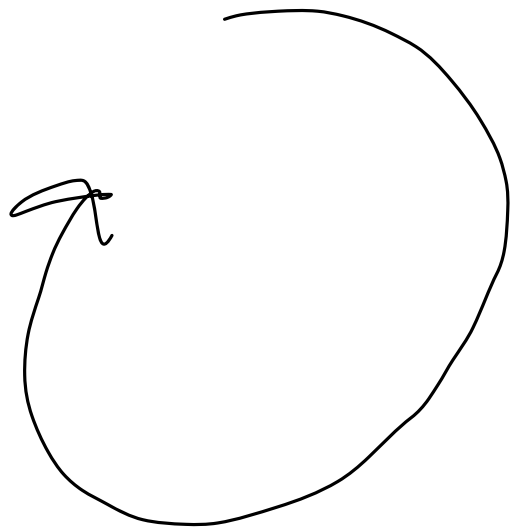
4:44

Sam

Fred: It was a distinct pleasure meeting you today. I look forward to lunch next Wednesday. Regards, Sam.

Sam: Likewise, it was a simply jubilant encounter. I await our next meeting with much anticipation.
Very respectfully, Fred.

message...

Fred and Sam exchange pleasantries and reaffirm their intentions to meet next Wednesday via text.

Very formal and nonemotional tone

ToneCheck looks at the content of the messages and isolates words which give hints as to the tone. Further, it finds the most important and key phrases for search.
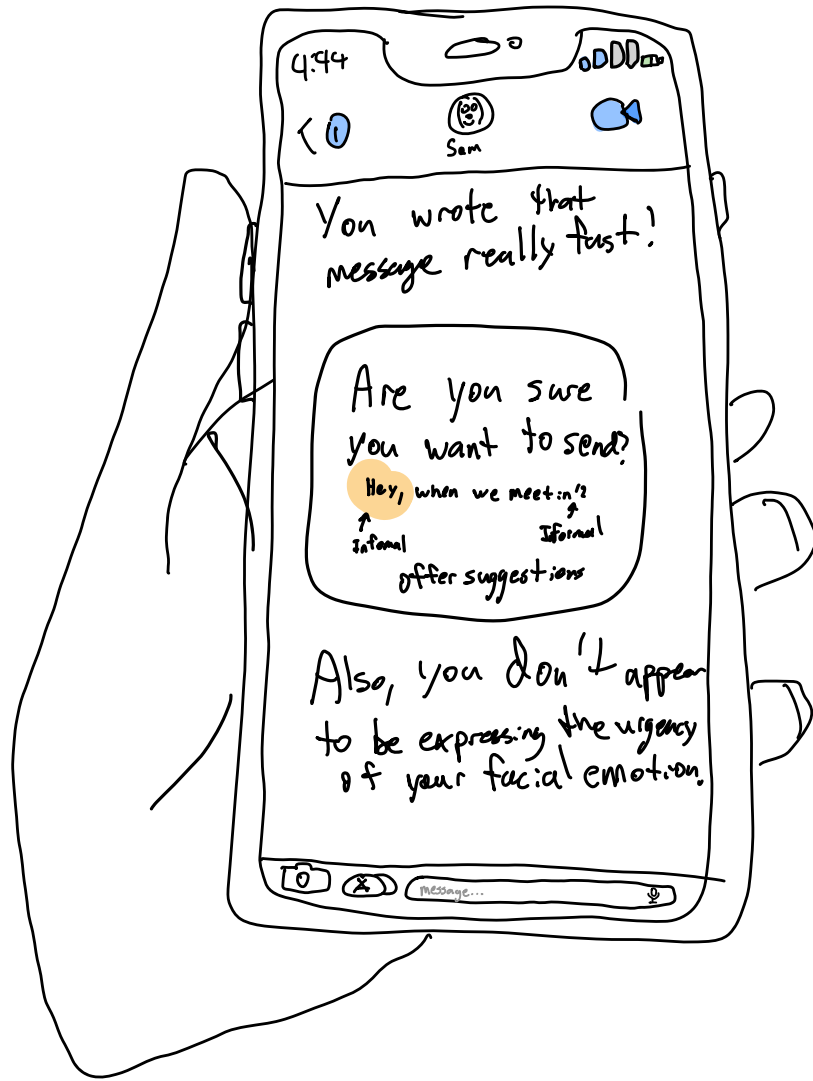
Today is Wednesday

Several days pass
w/o conversation

Several days have passed, but
Sam and Fred are yet to
solidify plans. Sam remembers
they were supposed
to meet.

Sam drafts a message, hastily and without much thought. ToneCheck remembers the context and displays it to Sam.

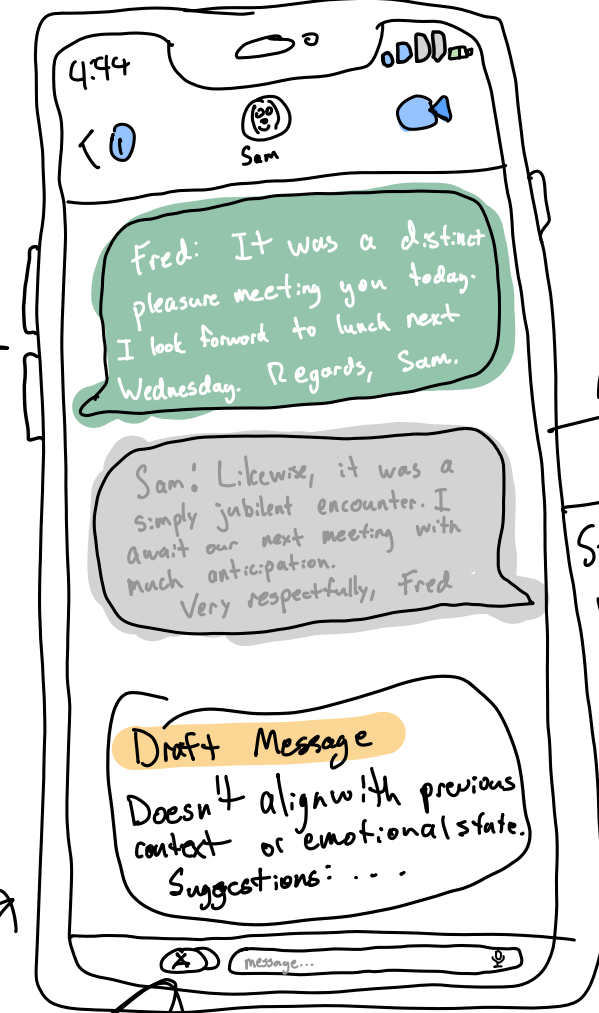ToneCheck offers suggestions to improve the quality of the message.

ToneCheck
Server

Sends
Texts
+ Webcam
+ time spent

TONE: FORMAL
EMOTIONAL STATE: HAPPY

SAM

face
emotion
detection

drafts message

4:44

Sam

Fred: It was a distinct pleasure meeting you today. I look forward to lunch next Wednesday. Regards, Sam.

Sam: Likewise, it was a simply jubilant encounter. I await our next meeting with much anticipation. Very respectfully, Fred

Draft Message
Doesn't align with previous context or emotional state. Suggestions: . . .

message...

Message

Sent to recipient