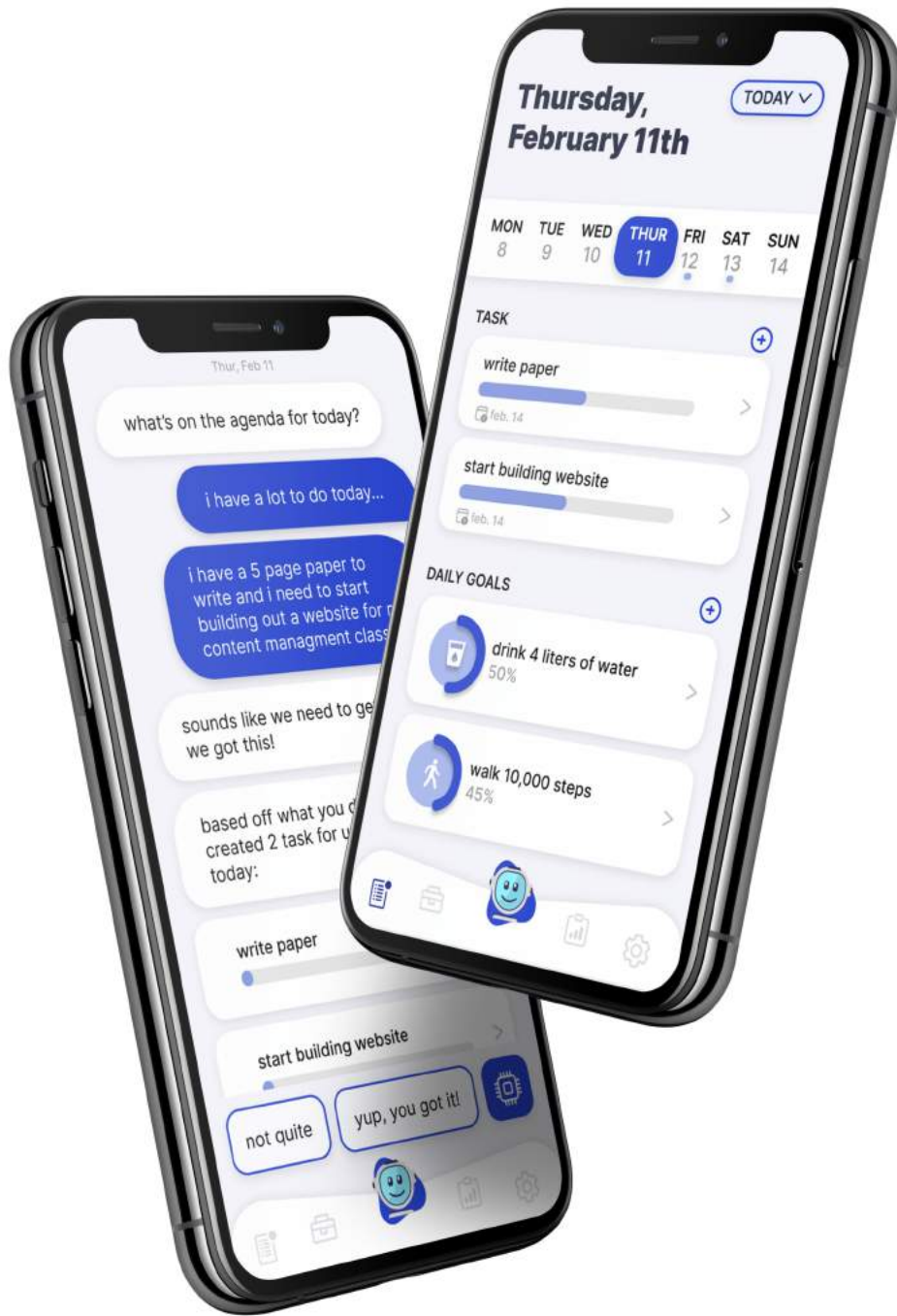


# //ASSIST

<an organizational support app>



A Proposal By:  
**Jacob Reel**

# //OVERVIEW

In this proposal you will learn about ASSIST, an organizational support app that empowers users with proven tools to improve their workflow and increase productivity. You will learn step by step how ASSIST was created, from the ideation phase to building the final prototype. We'll cover: an overview of our app, what a chat bot is, how we trained ours, who our target audience is and how we ensured our app was created using inclusive design.

## <IDEATION>

To begin my brainstorming process, I started to think about behaviors in my own life that I thought could use modifying. During my brainstorming process I began to feel overwhelmed with all of the daunting task I had in front of me. So, I decided to use this fear as an opportunity to solve a problem. I started to imagine a support bot that could help individuals not only stay on task but organize and complete task with ease.

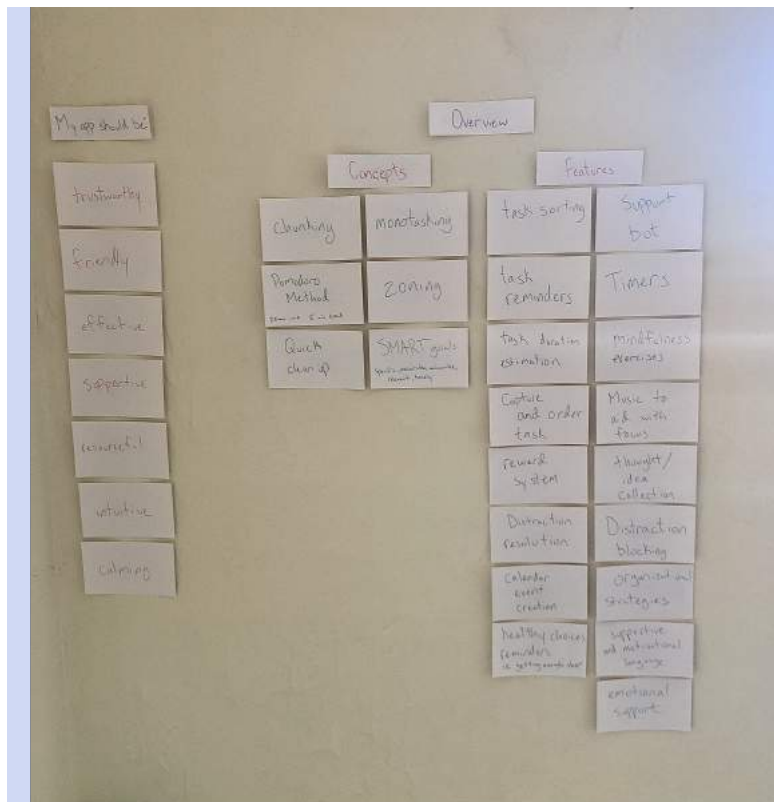
I imagined all of the people that such a bot could help in their day to day lives to not only be *more productive* but also to *reduce the heavy weight some tasks put on our shoulders*. In the early stages of my ideation and research I considered tailoring this bot to the help the neurodivergent community, however, I quickly realized I would not have the proper time or resources; I wanted to make sure a product marketed to the neurodivergent community would actually serve them effectively. Without proper user testing and interviews I did not think I would be able to achieve this in the allotted time. I broadened my scope in designing the app to help individuals increase productivity as a whole.

## <CONCEPT EXPLORATION>

Upon conducting my research, I began to affinity diagram what I believed to be important aspects/ characteristics of my app. I broke my affinity diagram into three categories: *my app should be*, *concepts*, and *features*. I created these categories after writing out all of my ideas onto index cards. (*results pictured on next page*)

The results of my affinity diagram laid down the foundation of my app and outlined what I believed to be important concepts and features to make the app successful. For the bot to be a success I knew it would need to use *emotionally supportive language* and feel *natural* to chat with. It would also need to be equip with a vast toolset in order to effectively help users.

From my research I learned about different tools and approaches to increase productivity and focus. Some of these tools included: timers, mindfulness, reminders, focus music, distraction blocking, chunking (splitting one big task into multiple parts and only working on that task), and SMART goals (making goals: Specific, Measurable, Achievable, Relevant, and Timely). These tools would become the foundation of my app.

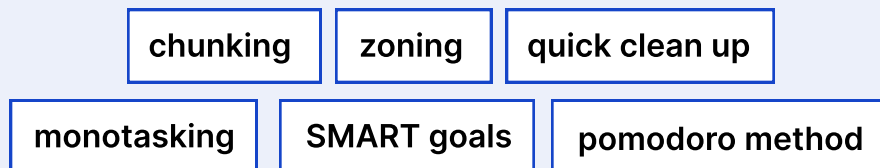


affinity diagram

**[my app should be]**



**[concepts]**



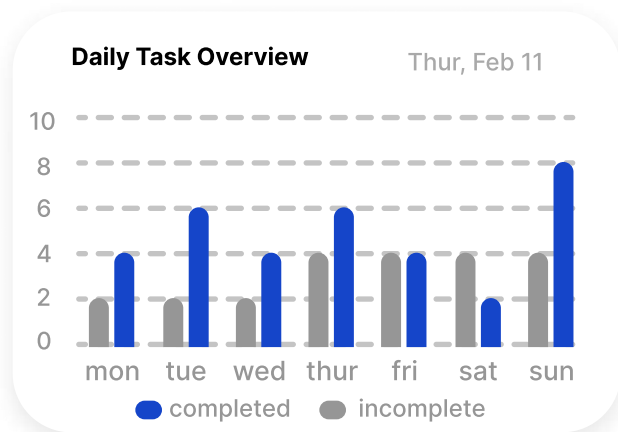
**[features]**



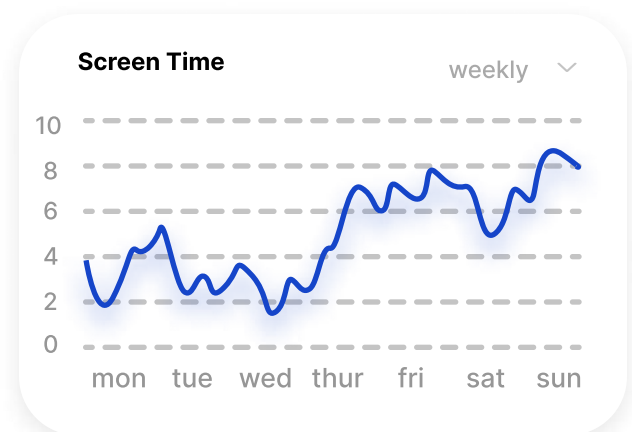
# //APP DESCRIPTION

ASSIST is an organizational support app aimed to provide individuals with the tools that they need to successfully accomplish task and build good working habits. Users are able to chat with Chip the friendly support bot to receive one-on-one personal guidance on an array of topics. Such as **completing task, finding motivation, releasing stress, navigating intense emotions, and setting goals**. In addition to chatting with Chip to get help users can also use the *Tools* tab to gain easy access to tools Chip may suggest.

“Most successful people plan what they need to accomplish. It has been demonstrated that having a written plan of action increases productivity” (Schrager & Sadowski 2016). Chip not only helps users *create a plan*, but they also help users *execute it*. On top of helping users create their own personal workflow to increase their productivity ASSIST also offers users a *Reports* tab where they are able to see trends in their productivity journey. Users can see stats on their task completion for the week (see below), how much time they spent on their phone (see below), how much time they average per task, and more.



graph of task overview



graph of screen time usage

Included in the reports tab is an “achievements” section where users are able to view all of the achievements they have collected and which achievements they are still working towards (see below). A study conducted in 2017 testing a gamified mobile app to increase student engagement, retention and academic achievement saw an **“increase of student retention rate by 12.23%”** (Pechenkina, Laurence, Oates, Eldridge, & Hunter, 2017). This is precisely why we have incorporated achievements into our app, to help users stay motivated and engaged.



task master



well rested



2 week streak



hard hitter

achievement examples

ASSIST has four main sections: **To Do, Tools, Chip Chat** (fun right?), & **Stats** (Settings not included in main four sections). These four sections work together to provide users with everything they need to increase productivity. Each section has been designed with our target audience in mind to deliver the most effective experience possible.

# <KEY FEATURES>



## task chunking

Chunking is the act of splitting a task into smaller parts and setting aside a set amount of time to work on it. By doing this one can avoid distractions and cut out time wasted attempting to complete multiple tasks at once. Chunking “reduces distraction that stems from attempting to multitask” (Zahariades, 2017)



## mindfulness meditations

Mindfulness is a powerful practice with numerous benefits including stress reduction, improved memory, increased focus, and cognitive flexibility to name a few (Davis & Hayes, 2011). ASSIST offers users a handful of mindfulness exercise to incorporate into their routine.



## focus music

Music has been shown to increase memory retention up to 8% (Makada, Ozair, Mohammed, & Abellanoza, 2016) which can help your brain absorb and interpret new information more easily. This is why ASSIST offers users a focus music section where they can put on background music while they work to help increase their productivity.



## timers

Timers are a great tool to increase productivity and chunk your time. ASSIST offers users four different timer settings: the Pomodoro Tracker (25 minutes of work followed by a 5-minute break), a standard timer, a stopwatch, as well as task completion timer to help users gain a better understanding of their use of time.



## thought/idea collection

When working on a task it is easy to get derailed by a thought or idea. ASSIST offers users a section to jot down and organize their thoughts/ ideas that come to them while working so they can come back to them later and focus on their task at hand. Users are also able to tell Chip they have an idea/ thought they want to remember for later!



## reminders

Reminders are crucial to help form habits. By taking advantage of reminders ASSIST is able to help users start to form critical workflow habits which in turn translates to an increase in productivity and overall user satisfaction. Users can ask Chip to remind them of something at certain time or create a reminder themselves.

# //MEET CHIP



hi my name is chip! i'm here to help!

nice to meet you chip!

## <WHO IS CHIP?>

Chip is the name of the support bot that powers ASSIST! Chip is non-binary and uses they/ them pronouns. Chip is not only the face of the app, they are the heart and soul of the app. Chip is there for users when they need them most. Above all, Chip is a resource for our users to help them achieve their goals. Whether you are trying to get an assignment done or experiencing a lot of intense emotions *Chip is there to help.*

## <FEATURES>



task completion



find motivation



release stress



intense emotions



setting goals

Using *clinically proven therapy tools, emotional support strategies, and organizational techniques* Chip is able to help users take on many of life's most intense emotions and stress inducing events. We understand that sometimes life gets in the way of being productive, this is why Chip is equip to help users work on their mental health using proven *Cognitive Behavioral Therapy strategies*. The best part about Chip is that over time they get to know you better and can provide an even more personalized experience.

## <TONE GUIDE>

Because Chip is the heart and soul of ASSIST how they communicate with users is crucial to the success of the app. Chip's tone changes based on the situation, however, their voice always comes from a place of support. Chip uses all lowercase to achieve a sense of *casualness* and *intimacy* to help users feel more at ease while chatting.

When assisting users with **completing task** Chip's tone is **friendly** but not distracting, **intelligent** but not condescending, and **optimistic** but not impractical.

When assisting users with **navigating emotions** Chip's tone is **calming, supportive,** and **sincere**. Chip uses emotionally supportive language to ensure that users feel heard.

## <WHAT IS A CHAT BOT?>

There are three main types of chatbots: *rule-based chatbots*, *Intellectually independent chatbots*, and *AI- powered chatbots*. (botscrew.com)

- **Rule-based chatbots** require users to select pre-defined answers and questions in order to lead them to the answers they are looking for.
- **Intellectually independent** chatbots use machine learning to understand certain words and phrases a user may type. They use the data they gather to teach themselves to recognize patterns.
- **AI-powered chatbots** combine the best aspects of rule-based chatbots and intellectually independent chatbots. AI-powered chatbots understand free language and can remember context of conversations and user preferences. They use machine learning and artificial intelligence to make conversations feel more personal and human-like.

## <TRAINING CHIP>

To create a bot that not only builds a relationship with users but also provides effective support and resources to build positive workflow habits is no easy task. To achieve this our team uses *Artificial Intelligence (AI)* and *Natural Language Processing (NLP)* techniques to better understand our users and deliver them positive results.

*NLP* consist of roughly 5 steps:

1. **Tokenization** – chunks the sentence into multiple parts, words or tokens
2. **Part of speech tagging** – determines the grammar of the sentence (nouns, verbs, etc.)
3. **Stemming** – shortens words to their most basic form
4. **Named entity recognition** – locates familiar words or phrases in the text
5. **Sentiment Analysis** – where the computer determines any emotions, tones, or moods

Chip has been trained and developed to understand an incredible number of *utterances* (an utterance is anything a user might say to your bot). From these utterances Chip is able to abstract the user's intent with the help of AI and NLP. It is possible to ask the same question in hundreds of different ways, this is not problem for Chip. Chip is able to abstract crucial *entities* (keywords users use in a sentence that tip off what they are looking for) to better understand context, tone, and desire. All of this goes into ensuring Chip is able to provide users with relevant responses at the right time.

Sometimes users may be in a very fragile place when speaking with Chip and we do not take this lightly. This is why we have trained Chip using *Natural Language Processing (NLP)* which also involves *Natural Language Understanding (NLU)* and *Natural Language Generation (NLG)*. NLU is what gives bots the ability to understand humans, this is where the text is converted to data for the computer to understand. NLG takes that structured data and converts it to text to respond to the user.

## <AUDIENCE>

Although Chip would love to help as many people as they can, their focus is on students from the age of 15-30. Chip has been especially trained to understand and assist this audience, however, Chip is more than happy to help any person of any age!

**Target Audience** is *students from the age of 15-30.*

Students in this group range from just starting out high school to possibly finishing graduate school/ starting off in the workforce. We believe our tools will be most effective in helping these individuals not only improve their productivity but feel more confident about completing task and organizing their schedule.

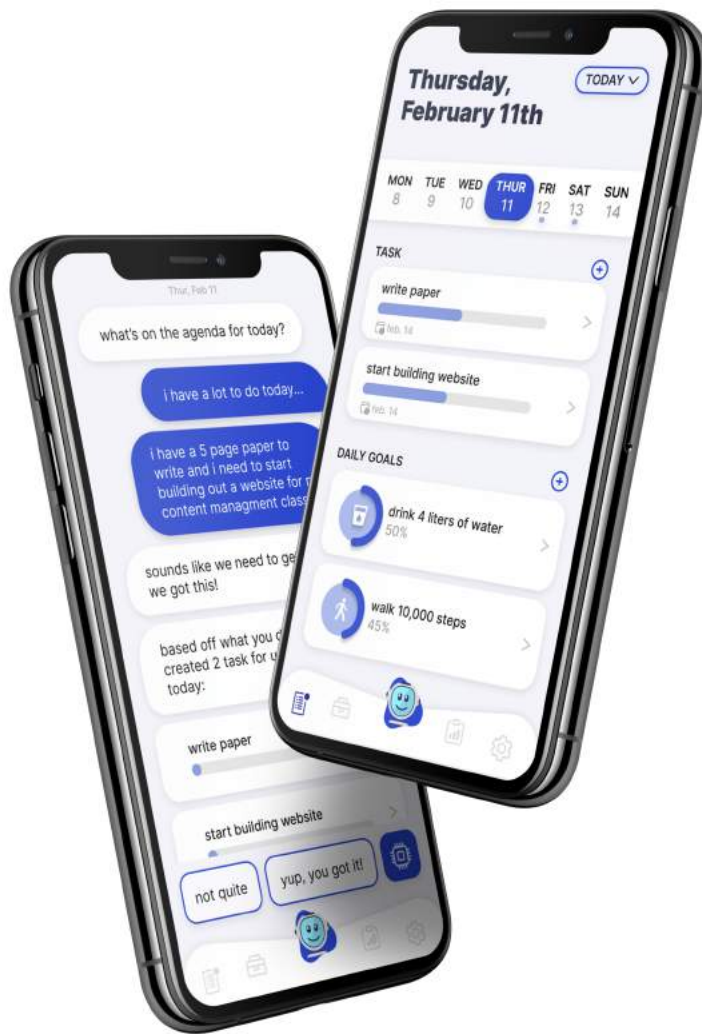
## <INCLUSIVE DESIGN>

ASSIST is designed using *inclusive design strategies*. Here at ASSIST we seek out *diverse perspectives* and actively build *diverse* and *inclusive* teams. We know we live in a racist world, so it's not enough to not be racist; you have to actively be anti-racist, which is why we take extra care in how we train Chip. "In the face of discriminatory effects, if those with the power to design differently choose business as usual, then they are perpetuating a racist system" (Ruha, 2020). This inclusivity does not stop at race. We work hard to ensure that ASSIST is a safe place for everyone no matter your race, gender, sexuality, religion, class, or age.

***"HCI research has implicitly or explicitly treated "gender" as a binary, immutable and physiologically-discernible concept" (Keyes, 2018)***

Here at ASSIST we know that sex and gender do not exist in a binary structure, and we know that coming to understand one's sexuality, gender expression, and gender identity can be a long and hard journey for some. This is why our users are never required to disclose their sex or gender. Instead, we allow users to self-disclose any information about their gender that they feel comfortable with sharing.





## //SUMMARY

ASSIST offers users *powerful, proven*, productivity tools to build better workflow habits so they feel more equip to tackle any project/ task life throws their way. Chip is there right by our users side every step of the way, to not only provide users with incredible resources but to be there for them emotionally as well. With *clinically proven therapy tools, emotional support strategies, and organizational techniques* Chip is a support system our users can count on. With dynamic charts users are able to track their progress over time and identify trends in their own behavior, giving them the power to invoke positive changes in their lives. Our users are in the driver seat, we're just here to ASSIST.

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