Appendix

Design Brief Template: Part 1

School: nex+Gen Academy

State: New Mexico

Division: High School

Team Members' Names: Luke Fletcher, Carly Salazar, Logan Slimp

Project Title: Readers should have a glimpse at what the project is about and want to read more. (25 word maximum)
MESA Mental Health Check Bot helps high school teens discreetly access counseling from school staff when they are experiencing mental health challenges in school.
Project Purpose: In one or two sentences explain what this project intends to do. (50 word maximum)
MESA Mental Health Check's objective is to help high school students experiencing mental health challenges communicate their needs to their teachers, counselor, nurse, or other school faculty. Additionally, it is a way to give access to free in-person counseling in real-time.
Abstract: Briefly describe the people who will benefit from the project and the challenges they face. Include any inequity that the project hopes to address. *(100 Words Maximum)*
According to the Centers for Disease Control and Prevention (CDC), about one in three high school students experience mental health challenges, and only 10% receive counseling. This can impact their ability to learn in school, as well as create long-lasting problems that extend past high school. Our team addressed high school teen mental health by creating a discreet way for teens to communicate with teachers or counselors via Discord to obtain free on-demand counseling. Our users and school staff think it would be effective and recommended that we further develop and implement it in schools.
User Research: Discuss key information about the users gathered through your research, interviews, and ongoing discussion with the user throughout the project. What did you learn about the user and the barriers they face? (200 word maximum)
High school students who experience mental health challenges can find it difficult to have the same access to education that their peers do. Through user interviews, we discovered that when high school teens experience panic attacks or anxiety in class they have found it difficult to seek help and notify adults when they are struggling. Students who are unable to seek out help can have their symptoms and experiences worsened by the overwhelming classroom or hallway campus environment. By engaging with school staff through interviews, we learned about preventative and coping strategies for students to deal with these challenges. Strategies

can include: fidget devices, calming music, meditation apps, or talking with a counselor or nurse. After our second round of user interviews, we learned it was important to develop a solution that is discreet, private, and could involve technology. Lastly, we conducted interviews with two Computer Scientists who are experts in their field that recommended different ideas. Our first expert advised us on how to create and run our own website, while our second expert informed us that constructing our prototype on existing infrastructure would be easier for people to use and far more practical to create.

User Insight: Discuss your team's understanding of the experiences, emotions, and motivations of the users. This insight should inform the rest of the project and help the reader have a deeper understanding of the inequity of the user. What did you learn about how the barriers affect the user? (200 word maximum)

Through research and personal experiences as a team, we have developed a better understanding of mental health challenges that teens face today. According to our research and users, the anxiety high school students face at school interferes with their ability to think, feel, learn, and interact with others giving them unequal access to learning. Students struggling with mental health challenges often find that they are more distracted by anxiety and their overwhelming environment; this can cause the individuals to learn less effectively or not at all, creating inequitable access to education. Additionally, the social stigma of asking for or receiving help creates significant barriers that put this community at a disadvantage over other adolescents. Our discreet solution allows users to contact school staff by creating a gateway for more effective communication regarding mental health challenges. The Mental Health Check Discord bot helps our users overcome mental health challenges by giving them a way to communicate and receive free counseling privately; this will alleviate any social stigmas, stressors, or other mental health challenges they may face.

User Needs: Develop a specific list of the user's needs produced from the user insight. What does the user want to help them with the barrier? (100 word maximum)

Our users have found it difficult to ask for help in the learning environment. Students can prevent or cope with mental health challenges by:
- **Immediately and effectively communicating with school staff**
  - Directly accessing mental health resources (could include in-person contact with a counselor or nurse).
  - Alerting a member of school staff about their needs while storing that data to potentially be analyzed later.

- **Discreetly getting help**
  - To not draw other students' attention which could cause the problem to worsen.
- **Having free and easy access to help**
  - Free and accessible to students and staff.
  - User-friendly and easy-to-follow instructions.

Project Goals: List project goals and describe how they are linked to and will adequately meet the user's needs and address inequities and/or barriers faced by the user. What do you want the project to do to help the user? (100 word maximum)

Our project helps high school teens:

- **Immediately and effectively communicate with school staff**
    - Helps prevent severe anxiety attacks or other mental health crises in school while enabling school faculty and staff to know what the student is experiencing.
- **Discreetly get help**
    - To not draw other students' attention.
    - Requests for help in the Discord server are private.
- **By being free and accessible for students and staff to use**
    - Accessible through computers, tablets, and phones.
    - Utilizes a pre-existing free application that many adolescents are familiar with.
    - Clear instructions and the user interface is easy to navigate.
    - Can be used anywhere during school.

Key Features of Design: List key features, illustrating that the design will adequately meet project goals. How will the project help the user? (200 word maximum)

The key features of the design are as follows, **1. Based on Discord -** A free online messaging software that adolescents are familiar with and know how to use: Discord allows users to message individuals instantly. Discord is highly accessible and offers a developer portal that allows the implementation of an automated Discord bot; this bot takes commands from a user and connects them with a member of school staff autonomously. **2. Private -** Provides a space where students are able to communicate directly and immediately with any school staff member, removing the social stigma of seeking help. **3. Notifications -** Notifies the selected member of faculty that can communicate with them in an event of an emergency in the form of a Discord message, email, and SMS (text message) push notification. **4. Versatile -** Discord is highly versatile being offered on a range of different platforms including a variety of devices, web browsers, and applications, while still being free. **5. Discord Servers -** Creates better organization for schools by having a devoted place for students to interact with the Discord bot. In addition, this allows staff to overview past Discord bot requests, offering pattern recognition tools to assist students with their mental health challenges.

Impact: Discuss how design addresses inequities for the user and/or removes barriers. Input from users should be included. Does the project help the user? How? (200 word maximum)

Nationally, one in three high school teens suffers from anxiety, depression, or other mental health challenges (CDC). The MESA Mental Health Check Discord bot provides specialized software for students with mental health challenges that allow them to access resources, including talking to trained professionals when they feel overwhelmed during the school day. The design can help students communicate their emotions, allowing them to then focus on

learning in a classroom setting without worrying about social stigmas from seeking help. Further, the user can do so privately and discreetly while documenting why and when they felt overwhelmed. Once the user reaches the school staff through an email, Discord direct message, or SMS, a trained professional can contact the student and aid them. Additionally, the bot stores all requests in a secure cloud server that the school counselor and nurse can utilize to examine patterns to help the student. The MESA Mental Health Check Discord bot helps prevent mental distress such as anxiety attacks or social anxiety inside the classroom, allowing our users to focus more on studying and learning. Our student users and school staff both approved the idea and felt it would be highly beneficial on our school's Discord server.

Status of Project: Describe the current status of the project, including feedback from users, and discuss potential next steps. What does the project do now? What would you like to work on in the future? (200 word maximum)

Our prototype has undergone many iterations, each informed by three phases of interviews with our users. Currently, once a staff member is chosen by the user using dropdown boxes, the bot sends a private message to that staff member. In addition, we have implemented three means of notifications: SMS messaging, Discord direct messaging, and email push notifications to open multiple lines of communication between the user and the member school staff. Further, this process of a student requesting help is discreet and cannot be seen by other students; however, the school staff can view it. Additionally, the bot records all student interactions to the Discord server's cloud storage, allowing counselors and nurses to review them later.

After an interview with the Instructional Council from nex+Gen Academy, we found that it would be beneficial to add teachers to the dropdown menu for students to contact. Further, they recommended we add counselor availability to the bot in the event of someone needing immediate in-person counseling. Additionally, we spoke with the Albuquerque Public Schools' District Counseling Department where they suggested adding crisis hotline information and encouraging students to seek a trusted adult if a counselor does not respond to the student promptly.
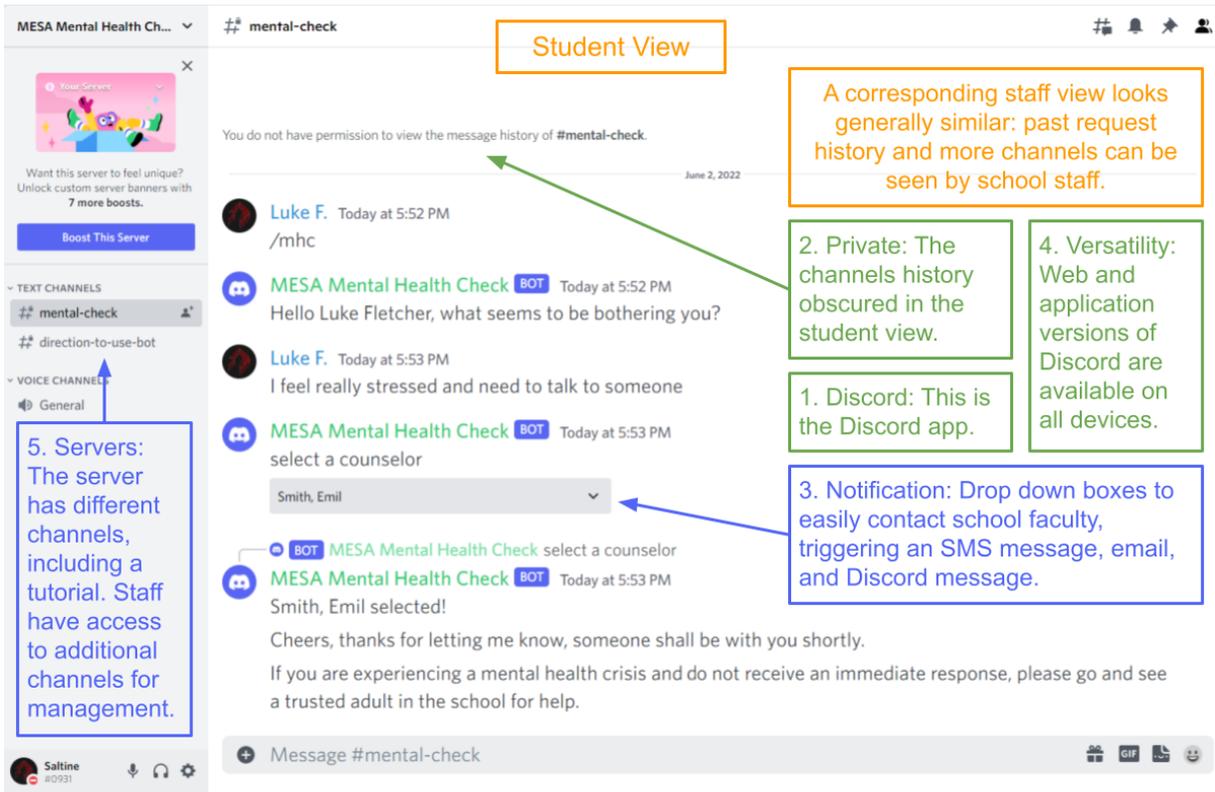
Reflection: Show that the team has an increased understanding of human-centered design. Examples of personal growth and insights gained about designing for others and helping them overcome challenges should also be included. What did you learn during this project? (200 word maximum)

In this project, we learned about the human-centered design process which helped us address a highly relevant inequity in our community: *high school teen mental health*. When speaking to our users who expressed frustration over their mental health challenges in school, we were able to empathize with and understand their challenges in interacting with others. After surveying our school community, we knew we needed to develop a solution that would alleviate our users' intense frustrations; this came in the form of a practical way to effectively communicate with school faculty and gain free access to counseling. The interview process

refined our initial vision and taught us how to prototype our product to be practical for our users.

In addition, we learned that access to mental health counseling, now more than ever, is scarce and individuals may be placed on a waiting list for months at a time, where their conditions may worsen. Thus, the MESA Mental Health Check bot can help prevent crises from occurring due to the lack of access to in-person counseling. Our device creates equity in the classroom by closing a gap between provider availability and patient demand as mentioned by the American Psychological Association.

Prototype Graphic: A single graphic with key features adequately labeled. It should be easy to understand and the reader should have a general understanding of how the prototype functions by looking at the graphic.