

Problem Statement:

Penn is working to improve the lives of students and the quality of their mental health resources. Students often feel like they are alone in their personal struggles and do not have anywhere to turn for help from the university besides a CAPS appointment with a specialist. However, at the end of the day, the university actually offers many services that remain heavily underutilized due to a lack of awareness from the students. We are looking to create an app that filters the mental health and mindfulness resources at Penn for different users' needs, effectively streamlining the process of finding the proper assistance. Once the preferences are determined through a short survey, the student will receive a filtered selection of resources tailored to their specific needs in categories such as sleep improvement programs, emergency hotlines, individual counseling, and meditation, among many others. Our app will facilitate a larger utilization of and greater impact for the pre-existing resources at Penn because of the customizability for each user profile. While the benefits brought to the student user is self-evident, the services at Penn also stand to gain a lot from this application in regard to a more efficient use of resources and better feedback.

User Stories:

1. As a user, I will open the app and then login into the application. (1)
2. As a user, I can take a survey so that the application can gauge my interests in order to suggest the most tailored resources. (1)
3. As a user, I can receive suggestions of resources to improve my mental health, based on my preferences. (2)
4. As a user, I can see my top 3 preferences after I take the survey so that I am not overwhelmed with options but I can see the best options to help me. (2)
5. As a user, from these preferences, I can click on them to be directed to tabs with links and descriptions. (2)
6. As a user, I want to have direct phone number links to resources so that I do not need to go through any extra inconveniences to reach out. (2)
7. As a user, I can listen to guided meditation because I am stressed out. (2)
8. As a user, I want access to a list of available therapists near me so I can choose which one is right for me. (2)
9. As a user, I want to be able to retake the survey at any point so that I can receive new recommendations for services. (1)
10. As a user, I can submit reviews of various Penn services so I can give feedback (2)
11. As a user, I want a clean interface which shows what resources I have access to (a la snapchat stories). (2)
12. As a user, I can mark a service as "interested" so that I can keep track of services that I may look into in the future. (1)
13. As a user, I want to have the option to display my name on comments/reviews so I can choose to preserve my anonymity. (1)

14. As a user, I can select “meditation” and see a page of guided meditation exercises to improve my wellness. (2)
 15. As an administrator, I want to be able to see which resources are needed the most so that they can properly allocate staffing and funding. (1)
 16. As an administrator, I want to be able to add resources and tag them so that the users who need it most can have direct access. (1)
 17. As an administrator, I want to be able to filter health resources based on user surveys. (1)
 18. As an administrator, I can review all of the comments and delete them if they are inappropriate. (1)
 19. As an administrator, I can group different health services and recommend broader categories, allowing the user to view and choose between similar services. (2)
 20. As an administrator, I can ask users when they log on if they visited any of the services they marked as “interested” to improve my recommendation algorithm. (1)
 21. As an administrator, I want to store user data and survey results so that I can refine my filtering algorithm. (1)
 22. As an administrator, I will need to utilize the PennKey authentication API to verify student identity. (3)
 23. As an administrator, I want to edit the resources available to the users as necessary. (1)
 24. As an administrator, if a user retakes the survey, I want to be able to compare the new survey results to the old one to check for improvement or new issues. (1)
 25. As an administrator, I want to be able to analyze the survey results of all users to see if there are any common threads, allowing me to generalize the health issues students face at Penn. (2)
 26. As an administrator, I will need to utilize the Spotify API to suggest music/playlists for the user based on their survey results. (3)
 27. As an administrator, I want to offer the user the opportunity to retake the survey each time they open the app. (1)
 28. As an administrator, I want to be able to analyze the user reviews of the services offered at Penn to strengthen my algorithm and perhaps spot deficiencies in CAPS services. (2)
- Data needed to run the application :
 - User personal information (name, age, DOB, etc.)
 - User survey results. They will be prompted to complete the survey upon first downloading the app, and they have the option to retake it at any point. All of these results will be stored in the DB.
 - Data from CAPS website about services (could potentially pull manually)
 - Expected back end database organization :
 - Using JSON
 - *User* child node, containing the personal information of each user, organized by their randomly generated authentication codes
 - *Survey* child node, organized by user authentication codes, containing the survey results for each user (possibly multiple). Possibly generate unique survey ID each time it is taken and store those under the user ID

- *Services* child node, containing each possible health service and its corresponding details nested within the node
- o External APIs: PennKey and potentially Spotify.

Taglines for Resources: Meditation, sleep, counseling, diet, group sessions, fitness, private sessions, hotlines, wellness outside of campus, academic stress, financial stress, LGBTQ, coping with grief or loss,