**Requirements**

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# **Abstract**

This project addresses the critical need for accessible and stigma-free platforms for individuals facing mental health challenges by developing a dedicated social media application tailored to their needs. Assumptions crucial to the project’s success include a significant interest in accessing mental health support through digital platforms and the user’s willingness to engage actively. Additionally, the assumptions of accessibility to digital devices among individuals with mental illnesses are fundamental. However, the project faces constraints such as technical, regulatory, and user-engagement challenges. These hurdles necessitate a comprehensive preliminary test plan covering functionality, usability, security, compatibility performance, feedback, regulatory compliance, and documentation. Despite these challenges, the project stands poised to deliver a transformative solution for mental health support in the digital age by addressing dependents such as access to mental health resources, technological infrastructure, user engagements, and funding.

# **Design Problem**

In today’s digital age, individuals facing mental health challenges often lack accessible and stigma-free platforms to share their experiences, access resources, and foster supportive communities. Despite the growing awareness surrounding mental health, existing social media platforms often fail to provide a safe and inclusive space specifically tailored to the needs of individuals grappling with mental illnesses. (Naslund, 2020) Consequently, there is a pressing need for a dedicated social media application that prioritizes empathy, support, and resource-sharing for this demographic.

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# **Assumptions**

During the completion of this project, we must have certain assumptions in place before development. An assumption is that many individuals express interred in accessing mental health support and resources via digital platforms. According to the research, there are about 50 million Americans who suffer from mental illnesses. (Mental Health America, 2022). A significant portion of those people have access to digital platforms or use some type of social media. (Petrosyan, 2024). We assume that users are willing to engage with the platform and will continue to participate in discussions, share their experiences, or seek assistance when needed. The last assumption to address is accessibility. We can assume that a significant population of those with mental illnesses have access to mobile or digital devices. (Young, 2019).

# **Constraints**

For this project, we can categorize some of the challenges as technical, regulatory, and user engagement. The technical challenge that the project may run into is developing a robust and user-friendly social media application with features tailored to mental health support, which includes ensuring data security, scalability, and seamless user experiences across various devices. With the regulatory challenges, the project may have to adhere to strict regulations concerning data privacy and mental health information. Throughout the development process of a published project, one may need to consider legal and ethical considerations. (Wong, 2023). Another challenge is user engagement. Encouraging active participation and ongoing engagement from individuals with mental illnesses may prove challenging. Stigma or privacy concerns cause some users to hesitate in sharing personal experiences or interacting with others on the application.

# **Dependencies**

This project depends on access to mental health professionals and resources, Technological infrastructure, user engagement and adoptions, and Funding resources to provide a successful result. One of the main goals of this application is to give resources to those who cannot seek professional health financially. The necessity of mental health professional's knowledge and expertise is essential. The dependence on robust technological infrastructure, which includes servers, databases, and software development tools, is needed to develop, deploy, and maintain the social media application and its features. Using the correct tools to develop the application will lead to the success of the application.

# **Preliminary Test Plan**

* Functionality Testing:
  + Verify users can create accounts and profiles;
  + Test functionality for posting and sharing mental health-related content;
  + Ensure the users can join and participate in dedicated support groups or communities;
  + Verify functionality for searching and discovering relevant mental health content and resources;
* Usability Testing
  + Conduct usability testing with a diverse group to evaluate the intuitiveness and ease of the app (“How can you use usability testing to improve social media user experience?”, 2023);
  + Assess navigation flow and user interface design to ensure accessibility and clarity;
  + Gather feedback on the readability, comprehensibility, and relevance of mental health content and resources;
  + Evaluate the effectiveness of features for connecting users with support groups and accessing crisis intervention resources;
* Security and Privacy Testing
  + Conduct security testing to identify and address vulnerabilities related to user protection, authentication mechanisms, and data encryptions;
  + Verify compliance with relevant data privacy regulations and ensure secure handling of sensitive mental health information (Wong,2023);
  + Test features for user privacy settings, including options for controlling the visibility of posts, profiles, and interactions;
* Compatibility Testing
  + Test the compatibility n with various devices, including smartphones, and tablets. And desktop computers across different operating systems;
  + Ensure compatibility with different web browsers for web-based versions of the application;
  + Verify responsiveness and adaptability of the user interface to different screen sizes and resolutions;
* Performance Testing
  + Test application performance under normal and peak usage conditions to access response time, loading speeds, and overall system stability;
  + Conduct stress testing to evaluate the application’s scalability and resilience under high-user traffic;
  + Monitor server performance and resource utilization to identify potential bottlenecks or performance issues;
* Feedback Testing
  + Gather feedback from beta testers and early adopters to identify areas for improvement and refinement;
  + Continuously monitor user engagement metrics to assess the effectiveness of the application and guide further development;
* Regulatory Compliance Testing
  + Verify compliance with relevant regulations and guidelines related to data privacy, mental health information, and online safety;
  + Ensure that the application meets the legal requirements for handling sensitive user data and providing mental health support services;
  + Conduct audits and reviews to ensure ongoing compliance with regulatory standards and industry best practices;
* Documentation and Training
  + Develop comprehensive documentation to assist users in navigating the application and accessing support practices;
  + Provide training and support for moderators and administrators responsible for managing community engagement, enforcing guidelines, and responding to user inquiries and reports;

# Conclusion

In conclusion, while embarking on this project, several assumptions must be acknowledged for its success. Firstly, it is assumed that a significant number of people are interested in accessing mental health support and resources through digital platforms, considering the sizable population affected by mental illnesses in the United States. Secondly, the assumption of the user's willingness to engage with the platform is paramount, as active participation is vital for fostering a supportive community. Additionally, accessibility is assumed, with a significant portion of individuals with mental illnesses having access to digital devices. Despite these assumptions, the project faces technical, regulatory, and user engagement challenges. The technical hurdles may arise in developing a robust and user-friendly application, while regulatory compliance and encouraging user engagement pose additional complexities. Moreover, the project dependencies, such as access to mental health resources, technological infrastructure, user engagement, and funding, underscore the collaborative need for success. However, with a comprehensive preliminary test plan encompassing functionality, usability, security, compatibility, performances, feedback, regulatory compliance, and documentation, the project stands poised to address these challenges and deliver a transformation solution for mental health support in the digital age.

**References**

*Adult data 2022. (n.d.). Retrieved from* [*https://mhanational.org/issues/2022/mental-health-america-adult-data#:~:text=Adult%20Prevalence%20of%20Mental%20Illness%20(AMI)%202022&text=19.86%25%20of%20adults%20are%20experiencing,experiencing%20a%20severe%20mental%20illness*](https://mhanational.org/issues/2022/mental-health-america-adult-data#:~:text=Adult%20Prevalence%20of%20Mental%20Illness%20(AMI)%202022&text=19.86%25%20of%20adults%20are%20experiencing,experiencing%20a%20severe%20mental%20illness)*.*

*How can you use usability testing to improve social media user experience? (2023). Retrieved from https://www.linkedin.com/advice/0/how-can-you-use-usability-testing-improve-social-genfc*

*How to make a social media app: Development guide 2024. (n.d.). Retrieved from https://www.addevice.io/blog/how-to-make-a-social-media-app*

*Naslund, J. A., Bondre, A., Torous, J., & Aschbrenner, K. A. (2020). Social Media and Mental Health: Benefits, risks, and opportunities for research and Practice. Retrieved from Petrosyan, A., & 27, F. (2024). Internet and social media users in the U.S. 2024. Retrieved from https://www.statista.com/statistics/1044012/us-digital-audience/#:~:text=As%20of%20JanWong, L. (2023). Social Media Compliance: Everything you need to know in 2024. Retrieved from https://blog.hootsuite.com/social-media-compliance/#:~:text=Social%20media%20compliance%20means%20following,legal%20issues%20and%20reputation%20damage.*

*Young, A., Cohen, A., Niv, N., Nowlin-Finch, N., Oberman, R., Olms-ochoa, T., … Wealan, F. (n.d.). Mobile Phone and Smartphone Use by People with Serious Mental Illness. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7054173/*