Assignment 2: Software Requirement Specification

Team: Mental Health Support

Project Title: Tranquilify

### Members:

1. Ali Abdi

2. Abdalaa Zwen

3. Hiba Rababeh

4. Khadija HJusan

5. Zach Marabeas

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| **Meetings Date** | **Participants** |
| 1/26/25 | Zach Marabeas, Ali Abdi, Hiba Rababeh, Abdalaa Zwen, Khadija Husan |

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| Functional Requirements: | Non-Functional Requirements: |
| FR1: User Accounts and Login FR2: Track User Mood Trends FR3: Offer Breathing Exercises FR4: Interactive Stress Management Tool FR5: Connect To a Live Therapist FR6: Talk to an AI Therapist FR7: Track User Progress FR8: Tailored suggestions based on AI FR9: Notifications / Reminders for activity FR10: Share Data with Therapists FR11: Message a therapist over text FR12: Schedule meetings with a therapist FR13: Set goals for activity / meditation FR14: Analytics dashboard FR15: User Journal entry | NR1: Secure User Data NR2: Train an AI on user data NR3: Support 1,000 concurrent users NR4: Accessible on IOS and Android NR5: User friendly |

Requirements

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| **Stakeholders** | **Requirements** |
| Users | FR1. create accounts and logins  FR2. track user mood trends  FR3. offer breathing exercises  FR4. interactive stress management tool  FR5. connect to a live therapist  FR6. Talk to an AI Therapist  FR9. notifications/ reminders for activity  FR11. message a therapist over text  FR12. Schedule meetings with a therapist  FR14. analytics dashboard  FR15. User Journal entry  NR3. User friendly |
| Server | FR8. tailored suggestions based on AI  FR7. track user progress  NR1. Secure User Data  NR2. Train an AI on user data  NR5. Support 1,000 Users |
| Therapist | FR5. connect to a live therapist  FR11. message a therapist over text  FR12. Schedule meetings with a therapist |
| All | FR10. share data with therapists  NR4. Accessible on IOS and Android |

Functional Requirements

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| **FR1. Allow users to create an account and log in using a username and password** | | |
| Goal: Ensure users can access personalized features | | |
| Stakeholders: Users | | |
| Description: Users will be able to register by providing an email, password, and optional profile details. The system will allow secure login with password hashing and authentication protocols. | | |
| Origin: Based on the initial project proposal | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 5/5 |

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| **FR2. track user mood trends** | | |
| Goal: enable users to log and track mood over time | | |
| Stakeholders: users | | |
| Description: everyday, users can enter their mood. To show trends, data will be shown in graphs | | |
| Origin: brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 2/5 |

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| **FR3. offer breathing exercises** | | |
| Goal: provide guided breathing exercises for stress relief | | |
| Stakeholders: users | | |
| Description: the system will allow users to customize the length of the exercises. It will be monitored. | | |
| Origin: brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 2/5 |

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| **FR4. interactive stress management tool** | | |
| Goal: give people interactive tools to help them manage stress. | | |
| Stakeholders: users | | |
| Description: combines games and mindfulness exercises. There will be a record of progress. | | |
| Origin: brainstorming on key features and initial proposal | | |
| Version: 1.0 | Date: 01/26/25 | Priority:5/5 |

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| **FR5. connect to a live therapist** | | |
| Goal: connect with a live video or call sessions with therapist. | | |
| Stakeholders: users, therapist | | |
| Description: users are able to schedule sessions and to be connected with live therapist through call or video. | | |
| Origin: brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority:5/5 |

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| **FR6.** Talk to an AI Therapist | | |
| Goal: Provide users with an AI-powered virtual therapist to offer emotional support, mental health guidance, and coping strategies through conversation. | | |
| Stakeholders: USERS | | |
| Description: Enables users to have conversations with an AI therapist for mental health support, offering coping strategies and emotional guidance through text or voice. | | |
| Origin: brainstorming on key features and AI | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 5/5 |

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| **FR7. track user progress** | | |
| Goal: allow consumers to track the development of their mental health over time. | | |
| Stakeholders: users, server | | |
| Description: using data that has been tracked, share improvements visually through timelines and graphs. | | |
| Origin: brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority:4/5 |

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| **FR8. tailored suggestions based on AI** | | |
| Goal: make individualized mental health recommendations with AI | | |
| Stakeholders: server | | |
| Description: user information, including goals, exercise history, and moods, will be used to customize suggestions. | | |
| Origin: brainstorming on AI | | |
| Version: 1.0 | Date: 01/26/25 | Priority:3/5 |

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| **FR9. notifications/ reminders for activity** | | |
| Goal: motivate users to continue engaging in mental health activities frequently | | |
| Stakeholders: users | | |
| Description: send reminders for scheduled activities, such as breathing exercises, therapy sessions, or check in. | | |
| Origin: brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority:4/5 |

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| **FR10. share data with therapists** | | |
| Goal: Allow users to give therapists access to their data and progress. | | |
| Stakeholders: users, therapists, server | | |
| Description: to enhance therapy results, offer therapists safe ways to access important user data. | | |
| Origin: brainstorming on key features and shareholders | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 3/5 |

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| **FR11. message a therapist over text** | | |
| Goal: allow users and therapist to communicate simultaneously. | | |
| Stakeholders: users, therapist | | |
| Description: Therapists are able to send and receive secure text messages. | | |
| Origin: brainstorming on key features and project proposal | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 2/5 |

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| FR12. Schedule meetings with a therapist | | |
| Goal: Allow users to conveniently book appointments with therapists to ensure timely access to support. | | |
| Stakeholders: Users, Therapists | | |
| Description: Users can view available time slots for therapists and select a preferred date and time, and book appointments directly through the platform. | | |
| Origin: Brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 5/5 |

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| **FR13. Set goals for activity / meditation** | | |
| Goal: Encourage users to establish and track personalized goals for mental health activities like meditation and breathing activities. | | |
| Stakeholders: Users | | |
| Description: Users can set short or long term goals for activities such as daily meditation sessions, breathing exercises, or stress relief practices. | | |
| Origin: Brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 4/5 (High) |

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| **FR14. analytics dashboard** | | |
| Goal: give people information about the patterns in their mental health | | |
| Stakeholders: users | | |
| Description: show patterns in goals, activities, and emotions by displaying user data in charts and graphs. | | |
| Origin: brainstorming on features | | |
| Version: 1.0 | Date: 01/26/25 | Priority:3/5 |

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| **FR15.** User Journal entry | | |
| Goal: Allow users to document their thoughts, feelings, and experiences for self-reflection and progress tracking. | | |
| Stakeholders: all | | |
| Description: The system will provide a simple and user-friendly journal feature where users can log entries. This feature helps users gain insights into their mental health journey over time. | | |
| Origin: brainstorming on key features | | |
| Version: 1.0 | Date: 01/26/25 | Priority:5/5 |

Non-Functional Requirements

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| **NR1.** Secure User Data | | |
| Goal: To provide a secure and accessible AI-powered therapist that offers emotional support and coping strategies while ensuring user data privacy. | | |
| Stakeholders: Server | | |
| Description: Enables users to have conversations with an AI therapist for mental health support, offering coping strategies and emotional guidance through text or voice while ensuring user data privacy and security. | | |
| Origin: Brainstorming on essential security issues | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 5/5 |

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| **NR2.** Train an AI on user data | | |
| Goal: To use ML to help train a model and for it to be able to give insights tailored to the user | | |
| Stakeholders: Server | | |
| Description: A machine learning model designed to provide personalized insights tailored to individual users based on their data and interactions. The model will analyze user behaviors, preferences, and feedback to offer actionable recommendations and predictions. | | |
| Origin: brainstorming on how to improve user experience | | |
| Version: 1.0 | Date: 01/26/25 | Priority:2/5 |

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| **NR3.** User friendly | | |
| Goal: To develop a machine learning model that delivers personalized, actionable insights to users based on their individual data and interactions, enhancing their experience with tailored recommendations and predictions. | | |
| Stakeholders: USER | | |
| Description: A smart system that learns from user preferences and behaviors to offer personalized insights and recommendations, making it easier for users to get relevant suggestions and improve their experience. | | |
| Origin: Brainstorming, ease of use is essential for mental health | | |
| Version: 1.0 | Date: 01/26/25 | Priority:5/5 |

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| **NR4.** Accessible on IOS and Android | | |
| Goal: To be able to use the platform on both Android and IOS | | |
| Stakeholders: user, server, therapist | | |
| Description:  The app should be able to run good on both Operating systems | | |
| Origin: Based on project proposal, usable by all users | | |
| Version: 1.0 | Date: 01/26/25 | Priority:5/5 |

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| **NR5. Support 1,000 Users** | | |
| Goal: Support 1,000 concurrent users without a noticeable drop in performance | | |
| Stakeholders: Server | | |
| Description: Handle scalability to accommodate multiple users simultaneously. | | |
| Origin: Brainstorming on scalability | | |
| Version: 1.0 | Date: 01/26/25 | Priority: 4/5 |