**REQUIREMENTS SPECIFICATION**

**User Stories**

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| **ID** | **User Story** |
| 1 | *As someone who is busy*  *I want to interact with a PT in my own time*  *So that I can work out whenever I feel like.* |
| 2 | *As someone who has started going to the gym*  *I want to see demonstrations of exercises*  *So that I can use the correct form.* |
| 3 | *As someone who goes to the gym*  *I want workout plans*  *So that I can tailor my workouts based on my needs and abilities.* |
| 4 | *As I have recently dislocated my shoulder*  *I want relevant exercises*  *So that they can help to rebuild and strengthen my shoulder.* |
| 5 | *As a user*  *I want to see visual demonstrations of workout exercises and text instructions*  *So that I can correctly perform the exercises with additional guidance.* |
| 6 | *As a user*  *I want to see realistic animations and real-time responses*  *So that my experience is satisfactory.* |
| 7 | *As a user*  *I want to set my own goals with the Personal Trainer*  *So that I have targets to aim for.* |
| 8 | *As a user*  *I want to have fitness tests*  *So that I can monitor my progress.* |
| 9 | *As a user*  *I want nutritional recommendations*  *So that I can change my diet.* |
| 10 | *As a returning user*  *I want the chatbot to recognise me when I open it*  *So that my user experience is satisfactory.* |
| 11 | *As someone who is embarrassed to go to the gym*  *I want to work out in my home*  *So that I can lose weight.* |
| 12 | *As someone who is busy*  *I want to have spinning classes in my own time*  *So that I can complete the class in my own time.* |

**Functional Requirements**

Functional Requirements detail actions or activities that the system can perform, along with actions the user can do on the system, for example…

*“Can I log in?”*

**Non-Functional Requirements**

Non-functional requirements describe how well a system should behave, for example…

*“Can I log in within 5 seconds?”*

**MoSCoW Analysis**

**Must Have**

Critical to current delivery timebox for it to be a success. If even 1 is not included, the project delivery should be considered a failure. They can be downgraded over time when new requirements are deemed more important.

**Should Have**

Important but not necessary for delivery in the current delivery timebox. They aren’t often time-critical.

**Could Have**

Desirable but not necessary and could improve user experience or customer satisfaction for minimal development cost, if time and resources permit.

**Won’t Have (this time)**

Agreed as least-critical or not time appropriate.

**Key: PTB = Personal Trainer Bot.**

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| **ID** | **Title** | **Functional or**  **Non-Functional?** | **Description** | **MoSCoW** |
| 1 | Open Application | Functional | Can I open the application? | M |
| 1.1 | - | Non-Functional | Can I open the application 24/7? | M |
| 1.2 | - | Non-Functional | Can the application open and load within 30 seconds? | M |
| 2 | General Communication | Functional | Can I communicate with PTB? | M |
| 2.1 | - | Functional | Can PTB communicate with me? | M |
| 2.2 | - | Non-Functional | Can communication occur in real time? | M |
| 2.3 | - | Functional | Can PTB motivate the user to keep exercising? | S |
| 2.4 | - | Non-Functional | Does PTB look realistic? | M |
| 3 | Workouts | Functional | Can I request workouts? | M |
| 3.1 | - | Functional | Can PTB output workouts? | M |
| 3.2 | - | Non-Functional | Can PTB output workouts in real time? | M |
| 4 | Exercise Descriptions | Functional | Can I request exercise descriptions? | M |
| 4.1 | - | Functional | Can PTB output text exercise descriptions? | M |
| 4.2 | - | Non-Functional | Can the chatbot output descriptions in real time? | M |
| 5 | Muscles Affected | Functional | Can I request the muscles affected by the exercise? | M |
| 5.1 | - | Functional | Can the chatbot output the relevant muscles diagram? | M |
| 5.2 | - | Non-Functional | Can the chatbot output diagrams in real time? | M |
| 6 | Exercise Demonstrations | Functional | Can I request a demonstration of the exercise? | M |
| 6.1 | - | Functional | Can the chatbot play a video of the exercise? | M |
| 6.2 | - | Non-Functional | Can the chatbot play the videos in real time? | M |
| 6.3 | - | Functional | Can the virtual human animate to demonstrate the exercise? | C |
| 6.4 | - | Non-Functional | Can the virtual human animations happen in real-time? | C |
| 7 | User Profile | Functional | Can I create my own user profile? | C |
| 7.1 | - | Functional | Can the chatbot recognise different users? | C |
| 7.2 | - | Functional | Can I customise my profile by inputting gender and height/weight? | C |
| 8 | Nutritional Guidance | Functional | Can I ask for nutritional advice? | C |
| 8.1 | - | Functional | Can the chatbot provide nutritional advice? | C |
| 9 | Rehabilitation | Functional | Could I ask for rehabilitation exercises? | C |
| 9.1 | - | Functional | Can PTB output rehabilitation exercises? | C |