**Task 1: Test strategy**

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| **Date of test** | **Component to be tested** | **Type of test to be carried out** | **Prerequisites and dependencies** |
| **March 19th 2025** | **Database functionality and organisation** | **White box unit testing – Testing if all database tables are successfully created with valid names** | **The table must create valid fields and records to store user ID’s, usernames and passwords. Passwords should have an encryption set up so that they cannot be accessed externally.** |
| **March 20th 2025** | **Registration page and form** | **White box unit testing – Checking if registering a user will store the entered credentials in the database** | **The table in the database that stores user account details must be functional and tested to accept credentials when a user wishes to register for an account at ToKa fitness to access web app resources. There will be boxes to enter inputs that the user entered. Proper validation will be used on the username to make sure it is not taken and character, presence checks will be used on the password to ensure security. Presence will be available by default.** |
| **March 21st 2025** | **Logging in page and form** | **White box unit testing – Checking if using credentials from the database will allow the user to access the website materials** | **The server will be able to get desired data from the database and attempt to match it with what the user has entered. Access to the website will be denied if credentials do not match and they will be stuck on the landing page.** |
| **March 22nd 2025** | **Registering and logging in** | **White box integration testing – testing seamless transition of registration and logging in** | **Users will be able to register and login seamlessly and the database data can be fetched from registration input boxes when logging in using html forms to parse data.** |
| **March 23rd 2025** | **Fitness information page is loaded successfully on login** | **White box unit testing – The page should fully load and display everything once a user is logged in.** | **A route will be hit up once a database match is made with data on the login to render the other website contents. This includes fitness information properly loading with everything such as exercise muscle, training type etc.** |
| **March 24th 2025** | **Accessibility features work successfully – dark mode toggle and language slider** | **White box unit testing – accessibility features should transform the entire website into a different language and darker.** | **Toggling the dark mode adds a dark class to every body element to lessen eye strain. A language slider api can be used to transform all text with a specific class on toggle.** |
| **March 25th 2025** | **Digital content works as expected.** | **White box unit testing -Digital content should load and function when clicked on.** | **On login, fitness information page will also include videos demonstrating exercises on the type of content. They should load correctly and be able to be played with sound aswell.** |
| **March 26th 2025** | **Workout tracker functions. Meal planner locked behind paywall to be implemented by ToKa.** | **White box unit testing – Tracker works as expected.** | **This is a separate page the user can use. There will be content able to be accessed such as the workout tracker which will allow the user to enter their BMI and how many minutes, they did of certain training to output calorie burn. There will be space for a meal tracker but a lock with a button to pay will be there. ToKa will be able to use this and implement payment walls.** |
| **March 27th 2025** | **All pages load and work correctly** | **White box integration testing – all web pages** | **All pages work seamlessly and can be accessed individually once logged in.** |
| **March 28th 2025** | **System testing – Testing the entire system as a whole** | **White and black box system testing** | **System will be tested entirely once everything else has been tested to ensure they all work together properly.** |
| **March 29th 2025** | **Acceptance testing – Evaluation of if system meets requirements.** | **Black box acceptance testing** | **The system can now be finally tested to be evaluated by end users so this will be black box.** |
| **March 30th 2025** | **Alpha testing – Rolling out to organisation members** | **Black box alpha testing – Organisation tests** | **Alpha testing can now commence within the organisation.** |
| **March 31st 2025** | **Beta testing – rolling out to end users** | **Black box beta testing – final solution beta release** | **The solution can now be finally rolled out to some end users for feedback** |