



COMP704 Research and Development Project

VN01 3D acupuncture healthcare data management and treatment system

Technical Testing Plan

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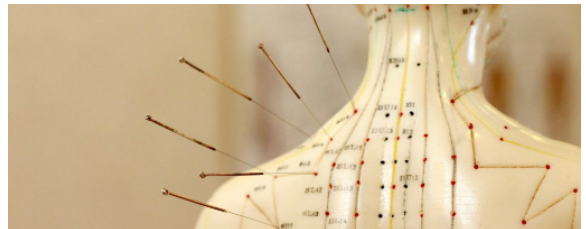


TABLE OF CONTENTS

| | |
|--------------------------------|---|
| DOCUMENT VERSION CONTROL | 2 |
| 1. DOCUMENT INFORMATION | 2 |
| 2. DOCUMENT SIGN-OFF | 2 |
| 3. DOCUMENT VERSIONS | 2 |
| TECHNICAL TESTING PLAN | 3 |

DOCUMENT VERSION CONTROL

1. DOCUMENT INFORMATION

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2. DOCUMENT SIGN-OFF

| ID | Member | Role | Signature | Timestamp |
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| 21142355 | Tan Le Tran Ba | Project Manager |  | 9 May 2023 17:40 |

3. DOCUMENT VERSIONS

| Version | Timestamp | Description | Responsible members |
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| 1.0 | 27 Apr 2023 18:44 | Summarize the testing plan for Technical Testing scope of the project | Nhan Nguyen Cao (21142377) |
| 2.0 | 8 May 2023 12:38 | Add API testing to Back-end Technical testing. | Nhan Nguyen Cao (21142377) |

TECHNICAL TESTING PLAN

Technical Testing procedure for the project was led by the two Developers in the project, with consultants received from the Quality Engineer of the project. Different types of testing were covered for different sides of the project. In details, the types of technical testing, with the libraries or tools used for implementing the technical test cases, are as follows:

Table 1 - Technical Testing types and tools used

| Side of code base | Type of testing | Tools / Frameworks / Libraries used |
|-------------------|------------------------------------|-------------------------------------|
| Front-end | Unit testing + Integration testing | Jest |
| | Automation testing | Puppeteer |
| Back-end | Unit testing | Jest |
| | API testing | Postman + Swagger |

As discussed in the plan for implementing different Versions of the project, the types of testing were applied at different stages during the project. The Technical Testing plan for the project, including the schedule and details, is as follows:

Table 2 - Technitac testing plan

| Side of code base | Type of testing | Sprint | Details |
|-------------------|---|----------------|--|
| Front-end | Unit testing + Integration testing (Part 1) | Sprint 11 | Unit testing (focus) and integration testing for static Front-end, during the implementation of layouts and components. |
| | Unit testing + Integration testing (Part 2) | Sprint 12 + 13 | Unit testing and integration testing (focus) for the integrated API calls from Front-end side of project. |
| | Automation testing | Sprint 14 | End-to-end testing with Headless Chromium browser to test some flows that were not covered by unit tests and integration tests. Main focus: Interaction flows with manual control panel and authentication flows. |
| Back-end | Unit testing | Sprint 14 | Unit testing to examine the function and execution for controllers and services of different modules of the Back-end side. |
| | API testing | Sprint 15 | API testing was added as an additional subtask during the implementation of technical test results report. The purpose of API testing was to examined the execution of API endpoints in staging environment, with tested data and staging database server. |