

# Verification and Validation Report: Software Engineering

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# 1 Revision History

Date	Version	Notes
Date 1	1.0	Notes
Date 2	1.1	Notes

## 2 Symbols, Abbreviations and Acronyms

symbol	description
T	Test

[symbols, abbreviations or acronyms – you can reference the SRS tables if needed —SS]

# Contents

<b>1</b>	<b>Revision History</b>	<b>i</b>
<b>2</b>	<b>Symbols, Abbreviations and Acronyms</b>	<b>ii</b>
<b>3</b>	<b>Functional Requirements Evaluation</b>	<b>1</b>
3.1	Authentication . . . . .	1
3.2	Data Collection and Storage . . . . .	1
3.3	Video and Audio Data Analysis . . . . .	2
3.4	Data Processing and Display . . . . .	2
3.5	System Set Up . . . . .	2
3.6	Assessment Interface . . . . .	3
<b>4</b>	<b>Nonfunctional Requirements Evaluation</b>	<b>3</b>
4.1	Look and Feel Requirements . . . . .	3
4.2	Usability and Humanity . . . . .	4
4.3	Performance . . . . .	4
4.4	Operational and Environmental . . . . .	5
4.5	Maintainability and Support . . . . .	5
4.6	Cultural . . . . .	5
4.7	Security . . . . .	6
4.8	Compliance . . . . .	6
<b>5</b>	<b>Comparison to Existing Implementation</b>	<b>7</b>
<b>6</b>	<b>Unit Testing</b>	<b>7</b>
<b>7</b>	<b>Changes Due to Testing</b>	<b>7</b>
<b>8</b>	<b>Automated Testing</b>	<b>7</b>
<b>9</b>	<b>Trace to Requirements</b>	<b>7</b>
<b>10</b>	<b>Trace to Modules</b>	<b>7</b>
<b>11</b>	<b>Code Coverage Metrics</b>	<b>7</b>

## List of Tables

## List of Figures

This document contains the team's verification and validation report for the TeleHealth Insights project. This document features functional requirements evaluation, nonfunctional requirements evaluation, unit testing, changes due to testing, automated testing, trace to requirements, trace to modules, and code coverage metrics.

### 3 Functional Requirements Evaluation

The following section covers all the functional requirements tests specified in the project's VnV Plan document. The coverage can be traced in Table X.

#### 3.1 Authentication

The test cases below focus on ensuring users can safely and securely login, create and access their accounts without worrying about others accessing their information.

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Functional Requirement(s):** FR-A1

#### 3.2 Data Collection and Storage

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Functional Requirement(s):** FR-A1

### 3.3 Video and Audio Data Analysis

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Functional Requirement(s):** FR-A1

### 3.4 Data Processing and Display

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Functional Requirement(s):** FR-A1

### 3.5 System Set Up

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Functional Requirement(s):** FR-A1

### 3.6 Assessment Interface

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Functional Requirement(s):** FR-A1

## 4 Nonfunctional Requirements Evaluation

The following section covers all the nonfunctional requirements specified in the project's VnV Plan document. The coverage can be traced in Table X.

### 4.1 Look and Feel Requirements

The test cases below



**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

## 4.2 Usability and Humanity

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

## 4.3 Performance

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

#### 4.4 Operational and Environmental

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

#### 4.5 Maintainability and Support

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

#### 4.6 Cultural

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is

selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

## 4.7 Security

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

## 4.8 Compliance

The test cases below

**Test Case Identifier:** FR-ST-A1

**Input:** Selection of Parent account role for login

**Expected Output:** The expected result is the Parent account role is selected and User is brought to the Parent login screen

**Actual Output:**

**Expected and Actual Output Match:** True

**Relevant Nonfunctional Requirement(s):** FR-A1

## **5 Comparison to Existing Implementation**

As this project does not have existing implementations, this section is not appropriate for the TeleHealth Insights project.

## **6 Unit Testing**

## **7 Changes Due to Testing**

[This section should highlight how feedback from the users and from the supervisor (when one exists) shaped the final product. In particular the feedback from the Rev 0 demo to the supervisor (or to potential users) should be highlighted. —SS]

## **8 Automated Testing**

## **9 Trace to Requirements**

## **10 Trace to Modules**

## **11 Code Coverage Metrics**

## **References**

## Appendix — Reflection

The information in this section will be used to evaluate the team members on the graduate attribute of Reflection.

The purpose of reflection questions is to give you a chance to assess your own learning and that of your group as a whole, and to find ways to improve in the future. Reflection is an important part of the learning process. Reflection is also an essential component of a successful software development process.

Reflections are most interesting and useful when they're honest, even if the stories they tell are imperfect. You will be marked based on your depth of thought and analysis, and not based on the content of the reflections themselves. Thus, for full marks we encourage you to answer openly and honestly and to avoid simply writing "what you think the evaluator wants to hear."

Please answer the following questions. Some questions can be answered on the team level, but where appropriate, each team member should write their own response:

1. What went well while writing this deliverable?
2. What pain points did you experience during this deliverable, and how did you resolve them?
3. Which parts of this document stemmed from speaking to your client(s) or a proxy (e.g. your peers)? Which ones were not, and why?
4. In what ways was the Verification and Validation (VnV) Plan different from the activities that were actually conducted for VnV? If there were differences, what changes required the modification in the plan? Why did these changes occur? Would you be able to anticipate these changes in future projects? If there weren't any differences, how was your team able to clearly predict a feasible amount of effort and the right tasks needed to build the evidence that demonstrates the required quality? (It is expected that most teams will have had to deviate from their original VnV Plan.)