

Software Test Report

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1. Overview

This document is the Software Test Report of the testing phase of the MedicalPractice software development project.

The purpose of the report is to document the result of testing activities conducted to ensure the quality and functionality of the software.

1. Test plan

Plan the testing by completing the table below.

Table 1 – Test plan

|  |  |  |  |
| --- | --- | --- | --- |
| Test ID | Test name | Summary | Expected result |
| Test-001 | Insert new Value inside PractitionerType | PractitionerType=” Nurse” | New value record inserted into table |
| Test-002 | Cannot insert duplicate value into PractitionerType table | PractitionerType=”nurse ” | The system should reject invalid practitioner type |
| Test-003 | Insert new value inside WeekDay | Ensure that valid WeekDay are accepted.  WeekDay=” FRIDAY” | The system should accept valid WeekDay value without error. |
| Test-004 | Insert Weekend day value into the WeekDay table | VALUES='Sunday' | The table should reject weekend days |
| Test-005 | Insert valid Patient value into the Patient Table | Values ='Mr', 'Mackenzie', 'J', 'Fleetwood', '233', 'Dreaming Street', 'Roseville', 'NSW', '2069', '298654743', '465375486', '7253418356478253','2000-03-12', 'male' | The system should accept valid patient values without error. |
| Test-006 | The patient table cannot allow the 5 length postcode | PostCode=’ 20690’  5 legth postCode | The Patient table should reject invalid patient value. |
| Test-007 | Insert value into the partitioner Table | Values = 'Mr', 'Mackenzie',  'J', '  Fleetwood', '  233',  'Dreaming Street', 'Roseville',  'NSW',  '2069',  '2986547',  '46537541', '72534183564782',  '37876273849',  '2000-03-12',  'male', '  nurse' | The table should accept valid practitioner without error. |
| Test-008 | Insert new value inside mobile phone from data | MobilePhone=’465375412’ | New record insert into table |
| Test-009 | Insert WeekDay\_Ref, Practitioner\_Ref value into the Availability table | Values=‘Friday','10001' | The system should accept valid Availability without error. |
| Test-010 | Cannot insert weekend day name into the Availability table | VALUES='Saturday', '10001' | The  Availability table should reject invalid Availability value |
| Test-011 | Insert new appointment value into the appointment table | Appointment Table  VALUES ‘10001’,’2019-09-  ]18’,’10:00:00’,’10000’ | The system should accept valid Appintment without error. |
| Test-012 | Cannot insert records with duplicate the appointment value | Appointment Table  VALUES=’10000’,’2019-09-18’,’08:00:00’,’10003’ | Table should reject invalid Appointment value(Date) |

Test method

The tests were conducted using SQL Server version 15.0.2000.1574. The test team included Ramazan Carpan. The tests were run on 09/03/2024 using manual testing. Manual testing involved interactive exploration of the software’s features to identify potential issues. Each test executed was as per our expectations and screenshots were taken for troubleshooting purposes.

The query tool used during testing was SQL Server Management Studio (SSMS). This tool was utilized for running queries, verifying data integrity, and ensuring the functionality of the database operations.

1. Test results

Complete the table below with the test results. Include the Test ID (as listed in the Test planning), the actual results from the testing, screenshots of the testing and any relevant comments or information (where required), and the outcome of the test (did it pass or fail?).

Table 1 – Test results

| Test ID | Test results | Screenshots of testing/ relevant comments | Test outcome  (pass/fail) |
| --- | --- | --- | --- |
| Test-001 | Value record was inserted into Practitioner type table |  | Pass. |
| Test-002 | The Pratitionertype table allowed duplicate value |  | Fail |
| Test-003 | All fields in the WeekDay table are filled correctly |  | Pass |
| Test-004 | WeekDay table allowed weekend day value |  | Fail |
| Test-005 | All fields in the Patient table are filled correctly |  | Pass |
| Test-006 | THE Patient table allowed the 5 length postcode |  | Fail |
| Test-007 | All fields in the Practitioner table are filled correctly | A screenshot of a computer  Description automatically generated | Pass |
| Test-008 | Practitioner table did not allow more than 9 number for MobilePhone |  | Fail |
| Test-009 | All fields in the  Availability table are filled correctly |  | Pass |
| Test-010 | Table allowed weekend value |  | Fail |
| Test-011 | All fields in the  Appointment table are filled correctly |  | Pass |
| Test-012 | Recorded duplicate value into appointment table |  | Fail |
|  |  |  |  |
| Test-002 | Duplicate was blocked by primary key | N/A | Pass |
| Test-004 | Invalid day is blocked with primary key | N/A | Pass |
| Test-006 | 5 length postcode was blocked with NvarChar(4) | N/A | Pass |
| Test-008 | 9 length mobile phone number was blocked by NvarChar(10) | N/A | Pass |
| Test-010 | Invalid value availability table was blocked by reference key from weekdays | N/A | Pass |
| Test-012 | Duplicate Date value was blocked by the UNIQUE constraint | N/A | Pass |

1. Analysis and conclusions

During the testing, several issues were identified in the software:

Practitioner Type Table (Test-002)

Issue: The system failed to reject duplicate entries.

Impact: This could lead to data redundancy and inconsistencies.

Weekdays Table (Test-004)

Issue: The system exceeded the limit for storing weekday names.

Impact: This could cause data overflow and potential errors in weekday-related operations.

Patient Table (Test-006)

Issue: The system allowed postcodes longer than four characters.

Impact: This violates data format requirements and could lead to incorrect data entries.

Practitioner Table (Test-008)

Issue: The system did not enforce the maximum length constraint for mobile phone numbers.

Impact: This could result in incorrect or incomplete mobile phone data.

Appointment Table (Test-012)

Issue: The system failed to enforce correct weekday references.

Impact: This could lead to scheduling errors and conflicts.

Availability Table (Test-010)

Issue: The system failed to execute invalid weekday entries in the weekday\_ref column.

Impact: This could cause inaccuracies in availability data and scheduling.

Successful Tests

Despite the identified issues, the software successfully passed tests related to accepting valid data. The following tests were successful:

Test-001: Valid data for the Practitioner Type table

Test-003: Valid data for the Weekdays table

Test-005: Valid data for the Patient table

Test-007: Valid data for the Practitioner table

Test-009: Valid data for the Appointment table

Test-011: Valid data for the Availability table

Conclusion

In conclusion, while the software demonstrates functionality in accepting valid data, several areas require improvement to ensure data integrity and adherence to requirements. Addressing the issues identified in the Practitioner Type, Weekdays, Patient, Practitioner, Appointment, and Availability tables will enhance the overall reliability and accuracy of the database.

Table 3 – Software evaluation

|  |  |
| --- | --- |
| Software specification | Evaluation |
| **Data requirements:** | Specify the type of data the software will stroe and manipulate |
| **Testing requirement:** | Define testign procedure and criteria to ensure software quality |

1. Software approval

Software is approved for installation by:

Name

Nicholas Attlee

Role

Database Development Team Leader

Signature

Date

20/03/2024

1. Document authority

This Software Test Report has been authorised by Catherine Dunn the CEO of Gelos Enterprises and is available to all staff. It has been developed in line with all relevant legislation, in consultation with committee representatives and will be revised on a regular basis.

Approval date: 20/03/20xx