ClinicFlow

Test Report

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Contents

1   Introduction

Testing is conducted adhere to the newest Test Plan by testing team.

Testing cases includes unit testing, system testing, non-functional requirements testing and automated testing.

Test Report covers all the testing cases and their results.

Test descriptions and criteria refer to Test Plan.

2   Unit Testing

2.1   PatientSchedule.py

Patient Schedule

No.	Initial State	Input	Expected Output	Actual Output	Result
1	No dataset present	No dataset	No output	As expected	Pass
2	No dataset present	formatted dataset	original dataset	As expected	Pass
3	No dataset present	unformatted dataset	No output	As expected	Pass
4	No dataset present	dataset(no repeats)	original dataset	As expected	Pass
5	No dataset present	dataset(many repeats)	original dataset	As expected	Pass

2.2   HealthcareSchedule.py

HealthCare Schedule

No.	Initial State	Input	Expected Output	Actual Output	Result
1	No dataset present	No dataset	No output	As expected	Pass
2	No dataset present	formatted dataset	original dataset	As expected	Pass
3	No dataset present	unformatted dataset	No output	As expected	Pass
4	No dataset present	dataset(no repeats)	original dataset	As expected	Pass
5	No dataset present	dataset(many repeats)	original dataset	As expected	Pass

2.3 Clinic.py

Clinic Modules

No.	Initial State	Input	Expected Output	Actual Output	Result
1	No dataset present	No dataset	No output	As expected	Pass
2	No dataset present	formatted dataset	original dataset	As expected	Pass
3	No dataset present	unformatted dataset	No output	As expected	Pass
4	No dataset present	dataset(no repeats)	original dataset	As expected	Pass
5	No dataset present	dataset(many repeats)	original dataset	As expected	Pass

2.4 SimulationEngine.py

Simulation Engine

No.	Initial State	Input	Expected Output	Actual Output	Result
1	no simulation data stored	Proper datasets under normal conditions. 25 patients in simulation.	Outputs close to sample dataset, no more than 10 minutes	As expected	Pass
2	no simulation data stored	Proper datasets under normal conditions. 50 patients in simulation.	Outputs close to sample dataset, no more than 10 minutes	As expected	Pass
3	no simulation data stored	Proper datasets under normal conditions. Only 2 flexable workers.	Outputs close to sample dataset, no more than 10 minutes	As expected	Pass
4	no simulation data stored	Proper datasets, but all breaks are simulataneous.	Outputs close to sample dataset, no more than 10 minutes	As expected	Pass
5	no simulation data stored	Changed datasets to larger numbers.	Outputs close to sample dataset, no more than 10 minutes	As expected	Pass

2.5 Summary Output

Summary Output

No.	Initial State	Input	Expected Output	Actual Output	Result
1	No previous output	Genuine data	Formatted output	As expected	Pass
2	No previous output	Skewed data	No output	As expected	Pass
3	No previous output	Invalid data	No output	As expected	Pass
4	No previous output	Missing Data	No output	As expected	Pass

2.6 User Interface

User Interface

No.	Initial State	Input	Expected Output	Actual Output	Result
1	no previous interactions	Base case	normal response	As expected	Pass
2	no previous interactions	Invalid interaction	No response	As expected	Pass
3	no previous interactions	Aberrant user behaviour	No response	As expected	Pass

2.7 Data Storage

Data Storage

No.	Initial State	Input	Expected Output	Actual Output	Result
1	no current data stored	Valid simulation output data	data successfully stored	As expected	Pass
2	no current data stored	Missing data	data unsuccessfully stored	As expected	Pass
3	no current data stored	Incorrectly formatted data input	data unsuccessfully stored	As expected	Pass

3 System Testing

3.1 Login

Login

No.	Initial State	Input	Expected Output	Actual Output	Result
1	Login Page Empty input field of account and password. Click login.	Empty input of one of the input fields or both.	Stay at same page and error message of empty input.	As expected	Pass
2	Login Page Empty input field of account and password.	Valid input of account and password of administrator account. Click login.	Redirect to the main page of the application, and give user full authority of control.	As expected	Pass
3	Login Page Empty input field of account and password.	Valid input of account and password of viewer account . Click login.	Redirect to the main page of the application, user only allowed to view the data and schedule.	As expected	Pass
4	Login Page Empty input field of account and password.	Invalid of account or invalid password. Click login.	Stay at the same page and present an error message of the invalid login.	As expected	Pass
5	Application main page	Click logout.	Redirect to the login page.	As expected	Pass

3.2 Insertion and Storage of Data

Insertion and Storage of Data

No.	Initial State	Input	Expected Output	Actual Output	Result
1	Application main page, admin account.	Click Add Data.	Redirect to the Application adding data page.	As expected	Pass
2	Application adding data page.	Add the inexistent data to target database with correct data type. Click submit.	Stay in same page and all inputs are cleaned. Data appear in the corresponding database.	As expected	Pass
3	Application adding data page.	Add the data to target database with incorrect data type or incorrect pattern. Click submit.	Stay in same page and save valid data. Error messages indicate the invalid inputs.	As expected	Pass
4	Application adding data page.	Add the data which already existed in target database. Click submit.	Stay in same page and save data. Error message indicates the redundancy of data.	As expected	Pass
5	Application adding data page.	Add data which out of domain (such as reservation date in past days) to target database. Click submit.	Stay in same page and save data. Error message indicates that the data out of valid range.	As expected	Pass
6	Application main page, viewer account.	Click Add Data.	Error message.	As expected	Pass

3.3 View, Modify and Delete Data

View, Modify and Delete Data

No.	Initial State	Input	Expected Output	Actual Output	Result
1	Application main page, admin and viewer account	Click View Data.	Redirect to the View Data page.	As expected	Pass
2	Application view data page, admin and viewer account.	Select target database, click view.	Stay at same page. Display the content of all data from corresponding database.	As expected	Pass
3	Application view data page, admin and view account.	Select target database and give specific condition, click view.	Stay at same page. Display the content of target data from corresponding database.	As expected	Pass
4	Application view data page, admin account.	Modify the displayed data and change the value by another valid value. Click save.	Stay at same page. The value in display area and database have been changed.	As expected	Pass
5	Application view data page, admin account.	Modify the displayed data and change the value by invalid value(empty for required value or out of valid range). Click save.	Stay at same page, no change happen in displayed data or database. Error messages indicate the unexpected changes.	As expected	Pass

View, Modify and Delete Data

No.	Initial State	Input	Expected Output	Actual Output	Result
6	Application view data page, admin account.	Delete whole one row of data by clicking deletion button at end of the row. Click save.	Stay at same page. The deleted row disappear and the data in database is deleted as well.	As expected	Pass
7	Application view data page, admin account.	Delete whole one row of data if the data is expected to use in future (Patient reservation in next few days). Click save.	Stay at same page. Pop up a deletion confirmation window. Confirming the deletion will remove the row from the list. Cancel deletion will save the data.	As expected	Pass
8	Application view data page, viewer account.	Modify the displayed data.	Stay at same page. Data is not editable.	As expected	Pass
9	Application view data page, viewer account.	Click delete button.	Stay at same page. Deletion button does not exist.	As expected	Pass
10	Application view data page, viewer account.	Click save.	Stay at same page. Save button does not exist.	As expected	Pass

3.4 View Schedule and Modify Schedule

View Schedule and Modify Schedule

No.	Initial State	Input	Expected Output	Actual Output	Result
1	Application main page, admin and viewer account.	Click view schedule.	Redirect to the view schedule page.	As expected	Pass
2	Application view schedule page, admin and viewer account.	Select type and date of the schedule. Click view.	Stay at same page. The page displays the existing schedule.	As expected	Pass
3	Application view schedule page, admin account.	Click adding button and add a new reserved time into blank area of schedule. Click save.	Stay at same page. The new time period is added into schedule.The new schedule is saved into database.	As expected	Pass
4	Application view schedule, page admin account.	Click on adding button on a reserved area. Click save	If no error happens , stay at same page. No adding button on a reserved area.	As expected	Pass
5	Application view schedule page, admin account	Click on moving button on a reserved area and choose an empty area. Click save.	If no error happens stay at same page. The selected time period is set at new area. The new schedule is saved into database.	As expected	Pass

View Schedule and Modify Schedule

No.	Initial State	Input	Expected Output	Actual Output	Result
6	Application view schedule page, admin account	Click on moving button on a reserved area and choose a reserved area. Switch the reservation. Click save.	If no error happens, stay at same page. The selected time period is switched with another one. The new schedule is saved into database.	As expected	Pass
7	Application view schedule page, admin account.	Application validates the changes of schedule.	Checks on the sequences of procedures in clinic. If adding, moving, and switching violate the the sequence, show error message.	As expected	Pass
8	Application view schedule page, admin account.	Click delete button to remove a reservation. Click save.	Pop up a window for deletion confirmation. If continue to delete, remove the reservation. Save the new schedule to database.	As expected	Pass
9	Application view schedule page, viewer account.	Click adding or click moving or click delete or click save.	Stay at same page. No adding button, no moving button, no deletion button, no save button.	As expected	Pass

4 Non-Functional Requirements Testing

4.1 Usability Testing

No.	Initial State	Input	Expected Output	Actual Output	Result
1	Application is running	Performing generate simulation schedule tasks	Less than five mouse clicks	As expected	Pass
2	Application is running	New users with instructions to complete import data task	Complete it in three minutes	As expected	Pass
3	Application is running	New users without instructions to complete import data task	Complete it in three minutes and no more than three errors	As expected	Pass

4.2 Performance Testing

No.	Initial State	Input	Expected Output	Actual Output	Result
1	Application is not running	Start application and generate simulation schedule	Less than five minutes	As expected	Pass
2	Application is running	import 100 thousand data	not crash	As expected	Pass
3	Application is running	import 10000 thousand data	crash	As expected	Pass