

# Medicine Shop Automation Software (MSA)

*TEST SUITE*

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# UNIT TESTS

## Database connection method

This testing is for the database connection method and checks for events when the database is available and when it is not available due to connection failure or other technical reasons.

Input	Expected Output
Connection to the Database in the given URL is not available	An error message should be displayed
Connection to the Database at the given URL is available	No error message should be displayed

## Login method

This testing uses the login method for the medicine shop owner in various scenarios.

### Medicine Shop Owner

This testing checks the show manager login method in different cases

Input	Expected Output
No medicine shop owner account created and login is clicked	Error Message should be displayed
Medicine shop owner account is created, but entered username or password is wrong	Error message should be displayed
Medicine shop owner account is created, and entered username or password is correct	No Error message should be displayed and the user should be logged in

## Change account details method

This testing is for changing login details for medicine shop owners. This testing checks the change account details method in the medicine shop owner interface in different cases on entering the required data and clicking the update button.

Input	Expected Output
Entry for email is not a valid email format	An error message should be displayed
Entry for username is blank	An error message should be displayed
Entry for password is blank	An error message should be displayed
Entry for username is not blank and entry for email and mobile number is valid	No error message should be displayed and account should be updated
Entry for name is blank	An error message should be displayed
Entry for username is already existing username	An error message should be displayed

## Add Medicine method

This testing tests the add medicine method of our interface.

Input	Expected Output
Entry for Medicine id is not a valid format	An error message should be displayed
Entry for quantity is zero or a negative number	An error message should be displayed
String entry for Batch number is not of the specified length	An error message should be displayed
Entry for the expiry date is blank	An error message should be displayed
Entry for the expiry date is a past date	An error message should be displayed
Entry for vendor id is not a valid format	An error message should be displayed
Current entry is already present in the database, or one or more entered fields mis-match with a previous entry in the database	An error message should be displayed
All entry fields are correctly entered with the right format	Successful input message displayed

## Add New Medicine method

This testing tests the add medicine method of our interface.

Input	Expected Output
Entry for medicine trade name is blank	An error message should be displayed
Entry for medicine generic name is blank	An error message should be displayed
Entry for vendor id is not a valid format	An error message should be displayed
Entry for unit selling price is zero or a negative number	An error message should be displayed
Entry for purchase price is zero or a negative number	An error message should be displayed
Current entry is already present in the database, or one or more entered fields mis-match with a previous entry in the database	An error message should be displayed
All entry fields are correctly entered with the right format	Successful input message displayed, and a cheque favouring the vendor is provided to the shop owner for printing. Also a strip containing the medicine code is printed for the medicine shelf.

## Add Vendor method

This testing tests the add vendor method of our interface.

Input	Expected Output
Entry for Vendor Name is blank	An error message should be displayed
Entry for email is not a valid email format	An error message should be displayed
Entry for mobile number is not a number	An error message should be displayed
Entry for the Vendor Address is blank	An error message should be displayed
Entry for Vendor Name is not blank and entry for email and mobile number is valid	No error message should be displayed and a new account should be created
Entry for Vendor Name is blank	An error message should be displayed
Entry for Vendor Name is already existing Vendor Name	An error message should be displayed



## Generating List of Below Threshold Medicines

This testing checks the “Generate List of Below Threshold Medicines” method in the medicine shop manager’s interface.

Input	Expected Output
If no medicines exist in the database.	An error message should be displayed
If medicines exist in the database before pressing this button	No error message should be displayed and a detailed report of all medicines below their respective threshold mark with vendor details, medicine id, and quantity required provided to the shop owner in a document for printing.

## Generating List of Expired Medicines

This testing checks the “Generate List of Expired Medicines” method in the medicine shop manager’s interface.

Input	Expected Output
If no medicines exist in the database.	An error message should be displayed
If medicines exist in the database before pressing this button	No error message should be displayed and a detailed list of expired medicines along with the respective vendors provided to the shop owner in a document for printing.

## Sell Medicine method

This testing checks the Sell Medicine method in the show manager interface. A popup asks the user for the customer information to be printed on a receipt the medicine id he wants to order and its quantity.

Input	Expected Output
The medicine ID entered does not exist before pressing this button	An error message should be displayed
The quantity for an existing medicine is less than the quantity entered before pressing this button	An error message should be displayed
The customer details are entered in the wrong format before pressing this button. Example: Phone number does not have 10 digits.	An error message should be displayed
The medicine ID exists, quantity demand is met and customer details are in the correct format before pressing this button.	No error message is displayed and a receipt containing the customer details and medicine list along with their quantity is provided to the shop owner in a document for printing.

## Search Medicine

This testing checks the search medicine function.

Input	Expected Output
If name is empty	List of all the medicines to be displayed
No result with the provided search term present	“No Medicine with this name printed on the screen”
Input is as expected	List of all the medicines with all the details displayed on the screen

## Calculate Threshold

This testing checks the “calculate threshold”.

Input	Expected Output
If database contains no medicine	No change will happen
Medicine are present	Threshold of all the Medicine will be updated

## Printing Vendor Wise Payments

This testing checks the “Print Vendor Wise Payment” method in the medicine shop manager’s interface. All the vendor transactions are taken into account for a particular period of time which is read from the user on pressing this button. A popup asks the user for the duration for which the vendor wise transactions are to be displayed.

Input	Expected Output
The vendor ID entered does not exist.	An error message should be displayed
No vendor transactions are created in the given duration before pressing this button	An error message should be displayed
A proper start date and end date is entered and Vendor Transactions are created in this duration for that particular vendor before pressing this button	No error message should be displayed and a detailed report of all medicines bought in the period along with their quantity and id from that particular vendor. In the report, the net expenditure over the period with the selected vendor is also mentioned.
The duration entered is in a wrong format.	An error message should be displayed

## Calculating Profit and Revenue

This testing checks the “calculate profit and revenue” method in the medicine shop manager’s interface. All the transactions and expenditures are taken into account for a particular period of time which is read from the user on pressing this button. A popup asks the user for the duration for which the profit and revenue is to be displayed

Input	Expected Output
No transactions and expenditures are created in the given duration before pressing this button	An error message should be displayed
A proper start date and end date is entered and Transactions/expenditures are created in this duration before pressing this button	No error message should be displayed and a document containing a detailed report of all medicines sold in the period along with their quantity and id, and similarly all medicines bought from the different vendors in the given time. In the report, the net profit and net expenditure over the period are mentioned.
The duration entered is in a wrong format.	An error message should be displayed

