

# Test Case Planning

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## 1. Use Case 1 - <<Track Missed Doses>>

<b>Test Case ID</b>	TC01 -Positive Test Case (Detect Missed Dose Automatically)	
<b>Test Objective</b>	Verify that the system correctly identifies and records a missed dose when the scheduled time passes without a logged taken entry.	
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>• The application should be running.</li> <li>• Patient P1 exists in the system.</li> <li>• Prescription# 1 exists for P1 with a scheduled dose time: 8 AM.</li> <li>• The current time is 08:30 AM, and no dose has been logged yet.</li> </ul>	
<b>Test steps</b>	<p>Run the “Check Missed Doses” function</p> <p>- once written out/implemented</p> <p>The system should compare the current time with each scheduled medication time.</p> <p>It should find that P1 didn’t log the dose for Prescription# 1 by 08:00 AM.</p> <p>The system should mark that dose as “missed” and save it in the patient’s record.</p>	
<b>Input Values</b>	<b>FIELD</b>	<b>VALUE</b>
	Patient ID	P1
	Prescription number	1
	Scheduled Time	08:00
	Current time	08:30
	Dose Logged	NO
<b>Expected results</b>	<p>The system will show a message like: “Missed dose detected for Prescription# 1 (P1).”</p> <p>The system will store this dose as “missed” with a timestamp and reason.</p> <p>The missed dose will show up in the patient’s medication history or summary list.</p>	

<b>Test Case ID</b>	<b>TC02 -Negative Test Case (Incorrect Time Comparison)</b>												
<b>Test Objective</b>	To make sure the system doesn't mark a dose as missed if it was logged on time or before the scheduled time.												
<b>Preconditions</b>	<p>Application is running.</p> <p>Patient P1 exists.</p> <p>Prescription# 1 is scheduled for 08:00 AM.</p> <p>The patient logged the dose at 07:59 AM which is on time.</p>												
<b>Test steps</b>	<p>Run "Check Missed Doses."</p> <p>The system will compare the scheduled time and the actual log time.</p> <p>It should see that the dose was taken on time.</p> <p>No "missed dose" should be added.</p>												
<b>Input Values</b>	<table> <thead> <tr> <th><b>FIELD</b></th> <th><b>VALUE</b></th> </tr> </thead> <tbody> <tr> <td>Patient ID</td> <td>P1</td> </tr> <tr> <td>Prescription number</td> <td>1</td> </tr> <tr> <td>Scheduled Time</td> <td>08:00</td> </tr> <tr> <td>Current time</td> <td>07:59</td> </tr> <tr> <td>Dose Logged</td> <td>YES</td> </tr> </tbody> </table>	<b>FIELD</b>	<b>VALUE</b>	Patient ID	P1	Prescription number	1	Scheduled Time	08:00	Current time	07:59	Dose Logged	YES
<b>FIELD</b>	<b>VALUE</b>												
Patient ID	P1												
Prescription number	1												
Scheduled Time	08:00												
Current time	07:59												
Dose Logged	YES												
<b>Expected results</b>	<p>The system should show: "No missed doses detected for P1."</p> <p>Nothing new is added to the missed dose list.</p> <p>The system keeps the log marked as "taken."</p>												

<b>Test Case ID</b>	<b>TC03 - Boundary Test Case (Same-Minute Grace Limit)</b>
<b>Test Objective</b>	To check if the system accepts a dose that is logged exactly at the scheduled time (the boundary point) as being on time.

<b>Preconditions</b>	Application is running.  Patient P1 exists.  Prescription# 1 is scheduled for 08:00 AM.  The patient logs the dose at 08:00 AM exactly.												
<b>Test steps</b>	Run “Check Missed Doses.”  The system will compare the scheduled and logged times.  It will see that both times are the same.  The dose should count as on time.												
<b>Input Values</b>	<table> <thead> <tr> <th>FIELD</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>Patient ID</td> <td>P1</td> </tr> <tr> <td>Prescription number</td> <td>1</td> </tr> <tr> <td>Scheduled Time</td> <td>08:00</td> </tr> <tr> <td>Current time</td> <td>08:00</td> </tr> <tr> <td>Dose Logged</td> <td>YES</td> </tr> </tbody> </table>	FIELD	VALUE	Patient ID	P1	Prescription number	1	Scheduled Time	08:00	Current time	08:00	Dose Logged	YES
FIELD	VALUE												
Patient ID	P1												
Prescription number	1												
Scheduled Time	08:00												
Current time	08:00												
Dose Logged	YES												
<b>Expected results</b>	The system will treat the dose as “taken” not missed.  No missed entry should be made.  The patient’s history should still show “taken” for Prescription# 1.												

<b>Test Case ID</b>	<b>TC04 - Negative Test Case (Missing Prescription Data)</b>
<b>Test Objective</b>	To check what happens if the prescription is missing required information like the scheduled time.
<b>Preconditions</b>	Application is running.  Patient P1 exists.  Prescription# 2 exists, but the “scheduled time” field is empty.

<b>Test steps</b>	Run “Check Missed Doses.”  The system tries to read the scheduled time for Prescription# 2.  Since it’s empty, it can’t compare the times.  The system should handle this with a clear error message.												
<b>Input Values</b>	<table> <thead> <tr> <th>FIELD</th> <th>VALUE</th> </tr> </thead> <tbody> <tr> <td>Patient ID</td> <td>P1</td> </tr> <tr> <td>Prescription number</td> <td>2</td> </tr> <tr> <td>Scheduled Time</td> <td>empty</td> </tr> <tr> <td>Current time</td> <td>07:59</td> </tr> <tr> <td>Dose Logged</td> <td>YES</td> </tr> </tbody> </table>	FIELD	VALUE	Patient ID	P1	Prescription number	2	Scheduled Time	empty	Current time	07:59	Dose Logged	YES
FIELD	VALUE												
Patient ID	P1												
Prescription number	2												
Scheduled Time	empty												
Current time	07:59												
Dose Logged	YES												
<b>Expected results</b>	The system should display: “Scheduled time missing for Prescription# 2.”  It shouldn’t record anything as missed since it can’t verify it.  The doctor or admin should be prompted to fix the prescription data.												