

Test Case Planning

Group members	Vaishnavi Madagiri, Abhiram Allugubelli, Pooja Challala, Yasaswi Veera, Bella Lopez, Ahmed Abubakr Siddiq
----------------------	-----------------------------------------------------------------------------------------------------------

1. Use Case 1 - <<Dose Reminder Notification System>>

Test Case ID	TC01 - Positive Test Case (Reminder Triggered on Time)												
Test Objective	Verify that the system sends a reminder notification when the scheduled medication time arrives.												
Preconditions	<p>Application is running.</p> <p>Patient P1 exists in the system.</p> <p>Prescription#1 exists for P1 with scheduled dose time: 8:00 AM.</p> <p>Notifications are enabled for the patient.</p> <p>Current system time is 7:59 AM.</p>												
Test steps	<ol style="list-style-type: none"> 1. System monitors scheduled times in background. 2. Time advances to 08:00 AM. 3. Program checks for upcoming prescriptions. 4. Reminder notification is generated. 												
Input Values	<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>Notifications</td> <td>ON</td> </tr> </tbody> </table>	Field	Value	Patient ID	P1	Prescription Number	1	Scheduled Time	08:00	Current Time	08:00	Notifications	ON
Field	Value												
Patient ID	P1												
Prescription Number	1												
Scheduled Time	08:00												
Current Time	08:00												
Notifications	ON												
Expected results	<p>System sends notification:</p> <p>“Reminder: It’s time to take Prescription #1.”</p> <p>Notification appears before the dose is marked missed.</p> <p>Dose remains in "pending" status.</p>												

Test Case ID	TC02 - Negative Test Case (Notifications Disabled)												
Test Objective	Verify that the system does NOT send reminders if notifications are turned off.												
Preconditions	<p>Application is running.</p> <p>Patient P1 exists.</p> <p>Prescription#1 scheduled for 08:00 AM.</p> <p>Notifications are DISABLED for P1.</p>												
Test steps	<ol style="list-style-type: none"> 1. Time reaches 08:00 AM. 2. System checks reminder status. 3. Patient preferences are read. 												
Input Values	<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>Notifications</td> <td>OFF</td> </tr> </tbody> </table>	Field	Value	Patient ID	P1	Prescription Number	1	Scheduled Time	08:00	Current Time	08:00	Notifications	OFF
Field	Value												
Patient ID	P1												
Prescription Number	1												
Scheduled Time	08:00												
Current Time	08:00												
Notifications	OFF												
Expected results	<p>No reminder is produced.</p> <p>No errors occur.</p> <p>Prescription state remains unchanged.</p>												

Test Case ID	TC03 - Boundary Test Case (Reminder at Exact Minute)
Test Objective	Confirm that the system triggers reminder exactly at the scheduled boundary time.
Preconditions	<ul style="list-style-type: none"> • Application is running. • Patient P1 exists. • Prescription#2 is scheduled for 09:30 AM. • Notifications are enabled.

Test steps	1. System time reaches 09:30 AM exactly. 2. Reminder engine executes.	
Input Values	Field	Value
	Patient ID	P1
	Prescription Number	2
	Scheduled Time	09:30
	Current Time	09:30
	Notifications	ON
Expected results	<p>Reminder fires at exactly 9:30 AM.</p> <p>System does not delay notification.</p> <p>No early / duplicate reminders.</p>	

Test Case ID	TC04 - Negative Test Case (Invalid Notification Time Data)	
Test Objective	Verify system behavior if scheduled time is corrupted or missing.	
Preconditions	<p>Application is running.</p> <p>Patient P1 exists.</p> <p>Prescription#3 exists with missing scheduled time.</p>	
Test steps	<p>1. Reminder service attempts to read schedule.</p> <p>2. System fails to load time value.</p>	
Input Values	Field	Value
	Patient ID	P1
	Prescription Number	3
	Scheduled Time	null
	Notifications	ON
Expected results	<p>System displays/logs error:</p> <p>“Cannot send reminder: scheduled time not available.”</p> <p>No reminder is sent.</p> <p>System should not crash.</p>	