

Test Case ID	TS_PAS_UC_1-1	Test Case Description	Verify that BMO Staff can successfully log into the ParkSense system. Prerequisites: ParkSense system is operational; valid login credentials are available.		
Created By	John Jorel Landicho	Reviewed By	Timothy Jay V. Sayson	Version	1.0

S #	Prerequisites:
1	ParkSense system is operational; valid login credentials are available.
2	The user has valid or invalid login credentials (username and password).
3	The login page is accessible.

S #	Test Data
1	BMO Email
2	BMO Password
3	No credentials entered
4	Invalid Credentials

**Test Scenario** BMO Staff logs into the system with valid credentials.

Step #	Step Details	Expected Results
1	Open the ParkSense login page.	The login page displays fields for username and password.
2	Enter a valid username and password.	The system accepts the input and enables the login button.
3	Enter an invalid username and/or password.	The system displays an error message, "Invalid username or password."
4	Enter no credentials and click "Login."	The system displays an error message prompting the user to fill in both fields.
5	Click on "Forgot Password" link and enter a valid email/phone number.	The system sends a password reset link/code via email/SMS and displays a message: "Password reset link sent."
6	After successful login, log out of the system.	The user is successfully logged out and redirected to the login page.

Test Case ID	TS_PAS_UC_2-2	Test Case Description	Verify that BMO Staff can view historical occupancy reports based on collected data.		
Created By	Timothy Jay V. Sayson	Reviewed By	John Jorel Landicho	Version	1.0

S #	Prerequisites:
1	The Park Sense system is online and operational.
2	The dashboard is accessible by the BMO Staff.
3	Parking sensors are functional and accurately reporting space occupancy.
4	BMO Staff have logged into the system.

S #	Test Data
1	BMO Staff simply accesses existing reports

**Test Scenario** BMO Staff views occupancy and usage reports.

Step #	Step Details	Expected Results
1	Access the Park Sense dashboard.	The dashboard loads successfully and shows real-time parking data.
2	Navigate to the "View Reports" section.	The system opens the reports page with available report options.
3	Select parameters for the report (e.g., date range, report type).	The selected parameters are applied, and the "Generate Report" button becomes active.
4	Click "Generate Report."	The system retrieves the relevant data and displays a report, including occupancy data and visual aids (charts, graphs).

Test Case ID	TS_PAS_UC_3-3	Test Case Description	Verify that the ParkSense system detects a vehicle entry and updates occupancy data accurately.		
Created By	Angela Tauyan	Reviewed By	Timothy Jay V. Sayson	Version	1.0

S #	Prerequisites:
1	The Park Sense system is online and operational.
2	Arduino sensors are functional and calibrated.

S #	Test Data
1	Simulated vehicle entry

**Test Scenario** Simulated vehicle entry

Step #	Step Details	Expected Results
1	Simulate a vehicle passing through the entry point.	The Arduino sensor detects the vehicle.
2	The Arduino sensor detects the entry.	The system registers the vehicle entry and prepares to update occupancy.
3	Check if the system increments the occupied slot count.	The system increases the count of occupied parking slots by one within 2 seconds.

Test Case ID	TS_PAS_UC_4-4	Test Case Description	Verify that the ParkSense system detects a vehicle exit and updates occupancy data accurately.		
Created By	Rchie Libudan	Reviewed By	Timothy Jay V. Sayson	Version	1.0

S #	Prerequisites:
1	The Park Sense system is online and operational.
2	Arduino sensors are functional and calibrated.

S #	Test Data
1	Simulated vehicle exit

**Test Scenario** Vehicle exits the parking facility, and the system detects it.

Step #	Step Details	Expected Results
1	Simulate a vehicle passing through the exit point.	The Arduino sensor detects the vehicle.
2	The Arduino sensor detects the exit.	The system registers the vehicle exit and prepares to update occupancy.
3	Check if the system decrements the occupied slot count.	The system decreases the count of occupied parking slots by one within 2 seconds.

Test Case ID	TS_PAS_UC_5-5	Test Case Description	Verify that the system logs and records real-time parking occupancy based on vehicle entries and exits.		
Created By	John Jorel Landicho	Reviewed By	Timothy Jay V. Sayson	Version	1.0

S #	Prerequisites:
1	The Park Sense system is online and operational.
2	Arduino sensors are functional and calibrated.

S #	Test Data
1	Simulated entry and exit events

**Test Scenario** The system logs occupancy data as vehicles enter and exit.

Step #	Step Details	Expected Results
1	Simulate multiple vehicle entries and exits.	The system accurately detects each entry and exit event.
2	Verify that the system updates occupancy data in real-time.	The occupancy count reflects the actual number of vehicles currently in the parking facility.
3	Check the system’s historical log to ensure data accuracy.	The log shows a consistent and accurate record of all entries and exits, matching real-time data.

Test Case ID	TS_PAS_UC_6-6	Test Case Description	Verify that the display board shows the correct number of available slots for car drivers at the entrance.		
Created By	John Jorel Landicho	Reviewed By	Timothy Jay V. Sayson	Version	1.0

S #	Prerequisites:
1	ParkSense system is operational and real-time occupancy data is available.
2	Arduino sensors are functional and calibrated.

S #	Test Data
1	Simulated vehicle entry and exit events

**Test Scenario** Available slots are displayed on the board for car drivers to view.

Step #	Step Details	Expected Results
1	Simulate vehicles entering and exiting the parking facility.	The system accurately updates the occupancy count based on vehicle entries and exits.
2	Check if the display board updates the count of available slots after each entry/exit event.	The display board shows the correct number of available slots and updates within 2 seconds after any entry or exit.