Republic of the Philippines
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
QUEZON CITY BRANCH

Capstone 2

Sprint 2 Test Cases & Results Report

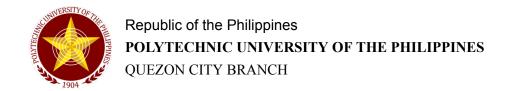Sprint 2 Artifacts

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BSIT 4-1

October 08, 2025

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Sprint 2 Test Cases & Results Report

Not Executed	112
Passed	37
Failed	4
Total Executed	41
Success Rate	**90.24%**

	Test Plan				
#	Steps/Condition	Input Data	Expected Result	Status	Comment
Login					
L-001	Employee: Login with correct Email and correct Password	sethpelagio20@gmail.com Password123!	SmartSupport Employee Dashboard	Passed	
L-002	Leave the account idle for more than 30 minutes, then try to navigate to another page		User is redirected to the login page and receives 401 when the token is expired	Not Executed	
L-003	Manually change the token (e.g., through browser dev tools) and refresh the page		User is redirected to the login page and receives 401 Unauthorized	Not Executed	
L-004	Click the Logout button		User is logged out, session is cleared, and redirected to the login page	Passed	
L-005	Try to open a protected page after logging out		User is redirected back to the login page	Not Executed	
Forgot Password					
FP-001	Click Forgot Password		Redirect to forgot password page	Passed	

FP-002	Enter a registered email address and click Send Reset Link	sethpelagio20@gmail.com	A reset link is sent to the email and a success message is shown	Passed	
FP-003	Enter an unregistered email address and click Send Reset Link	fakeemail@gmail.com	A message is displayed indicating that the email is not registered	Passed	
FP-004	Open the reset link received in the email and go to the Reset Password page		The Reset Password page is displayed	Passed	
FP-005	Enter a new password and confirm it, then click Submit	NewPassword123	Password is updated successfully and user is redirected to Login page	Passed	
FP-006	Open the same reset link again after successfully resetting the password		The link is no longer valid and an expiration/invalid link message is shown	Passed	
FP-007	Open the reset link after 30 minutes of receiving it		The link is expired and an expiration message is displayed	Passed	
Role Management					
RM-001	Log in as System Administrator		Successfully logged in and redirected to dashboard	Passed	
RM-002	Go to Accounts then open Role Management		Role Management page is displayed	Failed	
RM-003	Change Employee role to Ticket Coordinator	Ticket Coordinator	Role is updated and reflected in the user profile	Failed	
RM-004	Log in as the updated Ticket Coordinator		Can access coordinator pages	Passed	
RM-005	Navigate to the ticket section as Ticket Coordinator		Can view, manage, and approve tickets	Passed	

RM-006	Check if User Management page is available in the menu		User Management page is not visible or accessible for Coordinator	Passed	
RM-007	Change Ticket Coordinator role to System Administrator	System Admin	Role is updated and reflected in the user profile	Failed	
RM-008	Log in as the updated System Administrator (was Coordinator)		Can access system admin dashboard	Passed	
RM-009	Go to User Management page as System Administrator		Can manage user roles and view all tickets	Passed	
RM-010	Change System Administrator role to Employee	Employee	Role is updated and reflected in the user profile	Failed	
RM-011	Log in as the updated Employee (was Admin)		Can access employee pages only	Passed	
RM-012	Submit a ticket as the updated Employee		Ticket is submitted successfully	Passed	
RM-013	Go to Coordinator pages and User Management page as Employee		Access is denied	Passed	
Ticket Validation					
TV-001	Log in as Ticket Coordinator		Coordinator dashboard loads successfully	Passed	
TV-002	Go to Active Tickets		List of submitted tickets is displayed	Passed	
TV-003	Open a ticket with Category: IT, Sub-Category: System Maintenance	Category: IT Sub-category: System Maintenance	Dynamic form fields are displayed based on category and sub-category	Passed	

TV-004	Reject the ticket with a rejection message	Rejection Reason: "Not enough details provided"	Ticket is rejected successfully, and rejection message is displayed to user	Passed	
TV-005	Attempt to reject the ticket without providing a rejection message	Rejection Reason: (left blank)	Error message is displayed; rejection is not processed	Passed	
TV-006	Approve a valid ticket		Ticket is approved successfully	Passed	
TV-007	Verify system logs after rejecting or approving a ticket		Ticket review action is recorded in the system logs	Not Executed	
AMS/BMS Integration					
IN-001	Submit valid ticket that should be routed to AMS/BMS	Valid ticket JSON payload (category: IT, sub-category: System Maintenance)	API sends request to AMS/BMS, returns 200 OK, ticket marked as routed	Not Executed	
IN-002	AMS/BMS service is down during routing	AMS/BMS endpoint unavailable (simulate 500 error or timeout)	Ticket routing fails, error logged with status, retry initiated if configured	Not Executed	
IN-003	Successful AMS/BMS routing is logged		Integration log recorded with: ticket ID, timestamp, status: "success"	Not Executed	
IN-004	Failed AMS/BMS routing is logged	AMS/BMS returns 500 Internal Server Error	Integration log recorded with: ticket ID, timestamp, status: "failed", and error details	Not Executed	
IN-005	Retry mechanism triggers after AMS/BMS timeout	Simulated timeout on AMS/BMS (e.g., no response for 10s)	System retries API call per configured policy, logs each attempt	Not Executed	
IN-006	Submit ticket with incomplete required fields	JSON missing key fields (e.g., no sub-category or system ID)	HDTS does not call AMS/BMS; logs validation error and marks routing as failed	Not Executed	

IN-007	AMS/BMS returns malformed or unexpected response	AMS/BMS responds with incomplete or incorrect fields	System logs the issue, may mark ticket as partially routed or failed, depending on config	Not Executed	
IN-008	Submit request without Authorization header	API request with missing Authorization token	HDTS rejects request with 401 Unauthorized, logs auth error	Not Executed	
IN-009	AMS/BMS responds with ticket rejection	AMS/BMS returns: { "status": "rejected", "reason": "Invalid routing type" }	Ticket status updated to "Rejected", rejection reason stored and shown to coordinator	Not Executed	
IN-010	Verify log fields after rejection		Logs include: ticket ID, rejection reason, reviewer ID, and timestamp	Not Executed	
IN-011	Submit ticket with unsupported category for AMS/BMS integration	Ticket with unsupported category (e.g., "Procurement")	System does not route, returns error: "Unsupported category", logs the incident	Not Executed	
IN-012	AMS/BMS responds slowly (simulate high latency)	Simulate delayed response (>5s)	HDTS waits for response, logs delay duration, marks ticket as routed if response received	Not Executed	
Knowledgebase CRUD					
KB-001	Attempt to access CRUD endpoints without authentication		401 Unauthorized response returned	Not Executed	
KB-002	Access CRUD endpoints with non-admin role (e.g., Employee)	(JWT token with non-admin role)	403 Forbidden; request is blocked	Not Executed	
KB-003	Create a new FAQ with valid data	{ "question": "How to reset password?", "answer": "Go to settings..." }	201 Created; JSON response includes new FAQ ID and contents	Not Executed	
KB-004	Attempt to create a duplicate FAQ	Same as KB-003	409 Conflict; message: "Duplicate FAQ already exists"	Not Executed	
KB-005	Retrieve all FAQs		200 OK; JSON array of existing FAQs	Not Executed	

KB-006	Retrieve a specific FAQ by ID	(e.g., GET /faqs/123)	200 OK; JSON response contains expected FAQ object	Not Executed	
KB-007	Update an existing FAQ with valid changes	{ "question": "How to reset password?", "answer": "Click Forgot Password" }	200 OK; JSON response includes updated FAQ	Not Executed	
KB-008	Attempt to update with a duplicate question	Duplicate of an existing FAQ	409 Conflict; duplicate message shown	Not Executed	
KB-009	Delete a FAQ entry	(e.g., DELETE /faqs/123)	200 OK or 204 No Content; FAQ entry removed	Not Executed	
KB-010	Attempt to create with missing required field	{ "question": "", "answer": "Some answer" }	400 Bad Request; message: "Question is required"	Not Executed	
KB-011	Check JSON structure in all API responses		Responses follow { code, message, data } format	Not Executed	
KB-012	Ensure actions are logged for audit		Action logs include: user ID, action type, timestamp, and FAQ ID	Not Executed	
SLA/Ticket Reports					
SLA-001	Login as System Administrator		Successfully logged in and redirected to Admin Dashboard	Not Executed	
SLA-002	Navigate to Reports page		Reports page is displayed with filtering options	Not Executed	
SLA-003	Apply date range filter	Start Date: 2025-01-01End Date: 2025-01-31	Reports filtered to show tickets within date range	Not Executed	
SLA-004	Apply category filter	Category: IT	Reports filtered by IT category	Not Executed	
SLA-005	Apply sub-category filter	Sub-Category: System Maintenance	Reports filtered by system maintenance sub-category	Not Executed	
SLA-006	Apply priority filter	Priority: High	Reports filtered by high priority tickets	Not Executed	
SLA-007	Apply ticket status filter	Status: Breached	Reports filtered by breached tickets	Not Executed	

SLA-008	Generate report		SLA compliance metrics shown:- Avg resolution time- Total tickets per category- Compliance %	Not Executed	
SLA-009	Export report in PDF format		PDF report generated and downloadable	Not Executed	
SLA-010	Export report in CSV format		CSV report generated and downloadable	Not Executed	
SLA-011	Export report in Excel format		Excel report generated and downloadable	Not Executed	
SLA-012	Verify report contains graphical summaries		Graphs (bar/pie charts) show SLA breaches and resolved tickets visually	Not Executed	
SLA-013	Confirm real-time updates in report		New tickets or SLA updates reflected immediately without page reload	Not Executed	
Audit Logs					
AL-001	Login as System Administrator		Successfully logged in and redirected to Admin Dashboard	Not Executed	
AL-002	Perform CRUD operations (create, update, delete) on tickets or users	Varies based on CRUD action	Actions are logged with correct details	Not Executed	
AL-003	Access Audit Logs page		Audit Logs page displays list of user actions	Not Executed	
AL-004	Filter logs by date range	Start Date: 2025-09-01End Date: 2025-09-30	Logs filtered to show actions within date range	Not Executed	
AL-005	Filter logs by user ID	User ID: user123	Logs filtered to show actions performed by user123	Not Executed	
AL-006	Verify log entries contain required fields		Logs show: action type, user ID, timestamp, affected resource	Not Executed	
Chatbot Backend					
CB-001	Employee asks chatbot a question matching FAQ	"How do I reset my password?"	Chatbot fetches correct FAQ answer from backend	Not Executed	
CB-002	Employee asks chatbot a question with no FAQ match	"When is my next vacation?"	Chatbot suggests creating a new ticket	Not Executed	

CB-003	Verify chatbot fetches FAQs via Knowledgebase API		API calls are successful, FAQs returned in JSON	Not Executed	
CB-004	Check response when backend FAQ API is down		Chatbot displays error or fallback message	Not Executed	
Text to Speech					
TTS-001	Click the Text-to-Speech toggle ON		Chatbot responses are spoken aloud clearly and synced with text	Not Executed	
TTS-002	Click the Text-to-Speech toggle OFF		Audio playback stops	Not Executed	
TTS-003	Send multiple chatbot messages	Various chat inputs	Audio responses play sequentially without overlap or delays	Not Executed	
TTS-004	Check audio clarity and volume		Audio is clear, audible, and without distortion	Not Executed	
Suggestive Messages					
SM-001	User types a keyword in chatbot input	"password reset"	Chatbot suggests relevant FAQs related to password reset	Not Executed	
SM-002	User clicks on a suggested FAQ or category		Related content or FAQ page opens	Not Executed	
SM-003	User inputs an unmatched query	"unknown issue xyz"	Chatbot suggests creating a new ticket or related categories	Not Executed	
SM-004	User ignores suggestions and sends message	"Need help with system"	Normal chatbot response without suggestions	Not Executed	
Pre-Filled					
PF-001	User initiates ticket submission via chatbot prompt	"Report system downtime"	Form fields pre-filled with relevant data in JSON format	Not Executed	
PF-002	User reviews and edits pre-filled form fields		Changes are accepted and form remains editable	Not Executed	
PF-003	User submits the pre-filled form		Ticket created successfully with submitted data	Not Executed	
Redirect					
RD-001	Click "Go to Profile" link		User redirected to Profile page	Not Executed	

RD-002	Click "Submit Ticket" link		User redirected to Submit Ticket page	Not Executed	
RD-003	Click "FAQs" link		User redirected to Knowledgebase FAQ page	Not Executed	
RD-004	Try to access redirect link without login		Access denied or redirected to login page	Not Executed	
Backend Communication					
BC-001	Trigger ticket update from one module	Ticket ID: 12345, Status: "In Progress"	Ticket status updates in all connected modules in real-time	Not Executed	
BC-002	Trigger ticket update with invalid data	Ticket ID: 12345, Status: "InvalidStatus"	Update rejected; error logged for failed API call	Not Executed	
BC-003	Simulate API failure during ticket sync		Failure logged; retry mechanism triggered	Not Executed	
BC-004	Retry failed API call succeeds		Ticket update reflected successfully after retry	Not Executed	
BC-005	Trigger simultaneous updates from different modules	Ticket ID: 12345, Status: "Pending" / "Resolved"	Final ticket status consistent and no conflicts	Not Executed	
Communication					
C-001	User receives ticket update notification in real-time		Notification received immediately after ticket status changes	Not Executed	
C-002	Message delivery fails due to network error		Message delivery retried automatically	Not Executed	
C-003	User checks notification history filtered by date	Start Date: 2025-10-01End Date: 2025-10-07	Notifications filtered and displayed accurately	Not Executed	
C-004	Multiple users receive notifications simultaneously		All users receive notifications without delay	Not Executed	
C-005	Audit logs show all sent notifications with timestamps		Logs display accurate records of notifications sent	Not Executed	
API Service					
APS-001	Update ticket status to "In Progress"	Ticket ID: 12345Status: In Progress	Notification triggered and sent to relevant user(s)	Not Executed	

APS-002	Update ticket status to "Resolved"	Ticket ID: 12345Status: Resolved	Notification triggered and stored in database	Not Executed	
APS-003	Check database for saved notifications		Notification entries present with correct ticket and status info	Not Executed	
APS-004	Simulate failure in notification sending		Error logged, retry mechanism triggered	Not Executed	
Email Alerts					
EML-001	Trigger email alert for password reset	User email: user@example.com	Email sent successfully via Gmail API	Not Executed	
EML-002	Trigger email alert for approval action	Approval ID: 7890	Email sent and logged in email table	Not Executed	
EML-003	Check email logs for alert entries		Logs contain correct timestamps, recipients, and actions	Not Executed	
EML-004	Simulate Gmail API failure		Failure logged, retry mechanism triggered	Not Executed	
Audit & Validation					
AUV-001	Submit data containing SQL injection attempt	username=admin'; DROP TABLE users;--	Request is blocked or sanitized; no SQL injection occurs	Not Executed	
AUV-002	Submit script in form field	<script>alert('XSS')</script>	Script is escaped or removed; no script executes	Not Executed	
AUV-003	Check API response headers		Security headers like Content-Security-Policy, X-Content-Type-Options are present	Not Executed	
AUV-004	Submit valid sanitized input	username=test_user	Request succeeds without any security warnings or errors	Not Executed	
Backup & Recovery					
BCK-001	Check if backup automation is scheduled		Daily scheduled job is listed (e.g., CRON or scheduler info)	Not Executed	

BCK-002	Trigger manual backup from backup settings		Backup process starts and completes with a success message	Not Executed	
BCK-003	Check backup file naming format in backup directory		Backup file includes timestamp (e.g., backup_YYYYMMDD_HHMMSS.zip)	Not Executed	
BCK-004	Perform system restore using a selected backup file	Filename: backup_20251008_010000.zip	System restores to that backup's state, confirmation shown	Not Executed	
BCK-005	Validate backup file integrity		Backup file is complete and not corrupted	Not Executed	
BCK-006	Check system logs after backup and restore actions		Logs show timestamp, file name, and operation status	Not Executed	
BCK-007	Change backup schedule frequency	New Schedule: Weekly	System updates the schedule; logs reflect configuration change	Not Executed	
Error Handling					
ERR-001	Submit a request with missing required fields		{ "code": 400, "message": "Missing required fields" }	Not Executed	
ERR-002	Call an endpoint that does not exist		{ "code": 404, "message": "Not Found" }	Not Executed	
ERR-003	Submit a request with invalid ID format	id = "abc123!"	{ "code": 400, "message": "Invalid ID format" }	Not Executed	
ERR-004	Send malformed JSON in body	{ "name": "John" (incomplete JSON) }`	{ "code": 400, "message": "Malformed JSON" }	Not Executed	
ERR-005	Trigger internal server error via API logic	(valid input but backend fails)	{ "code": 500, "message": "Internal Server Error" }	Not Executed	
ERR-006	Inspect error logs		Log entry present with error code, message, endpoint, timestamp	Not Executed	
Deployment					
DEP-001	Perform User Acceptance Testing (UAT)		All critical user stories function as expected	Not Executed	
DEP-002	Conduct final QA testing on staging		No critical or high-priority bugs found in staging environment	Not Executed	

DEP-003	Verify staging environment stability		System is stable with consistent performance	Not Executed	
DEP-004	Verify that all prior Sprint 2 test cases passed		All test cases marked Passed or Not Executed with justification	Not Executed	

Test Result Report

After executing the test cases, a total of 41 tests were run out of the 153 planned. Of the 41 executed tests, 37 tests were successful, passing the validation criteria without any issues. This demonstrates that the majority of the core features, such as user login, ticket management, and report generation, are functioning correctly and meet the outlined requirements.

However, 4 test cases failed during execution. These failures were primarily related to the integration with external systems, specifically API syncing, and some issues in ticket validation. These failed tests indicate areas where further development is needed to ensure seamless functionality and integration. These failed cases are being logged for further investigation and resolution.

In addition to the executed tests, there are still 112 tests that remain unexecuted. These tests cover a broad range of functionalities and need to be prioritized in the next round of testing. It is critical to complete these tests to ensure full system coverage and catch any potential issues that may arise from untested areas.

The overall success rate for the tests conducted so far is 90.24%. While this is a strong result, the remaining unexecuted tests and the 4 failed cases highlight the need for continued focus and effort in refining the system. Moving forward, the next steps will include addressing the failed test cases, executing the remaining untested cases, and ensuring that no regressions occur during the next round of testing.