

CSE213 CRA Report

Autumn 2025

Topic: Simulating operations of a e-Visa management portal of a country		
ID: 2331024	Name: Tanjil Hasan Emon	User 1 : Applicant
		User 2 : Registered Agent
ID: 2312151	Name: Galib Hasan	User 3 : Visa Officer
		User 4 : Issuer
ID: 2110113	Name: Ashraful Rifat	User 5 : Operation Manager
		User 6 : Policy Manager
ID: 2210233	Name: Sharmin Akter Bithe	User 7 : Finance Clerk
		User 8 : Support Agent

P.T.O

NOTE:

- Download this template and create a google-docs file with the following **file name format**:
 - MS1_GroupNo_MS1FinalVersion_topicKeyword_id1_id2_id3_id4
 - Ex: MS1_Group70_MS1FinalVersion_IRAS_1234567_2345678_3456789_4567890
- Group Leader will create the google-docs using this template and will share the google-docs file among group members. All of the group members need to work on the same document.
- Sample Report Link (**Contains Mistakes**):
https://drive.google.com/file/d/1OzUBb4aqFNKhYV-D1mfIRUHpXuamwPrZ/view?usp=drive_link
- **ONLY ONE SUBMISSION from EACH GROUP**
- **To lock your content, you MUST upload a PDF file. NO LINK will be accepted.**
 - **By 15-October-25**, Wednesday, the group leader **MUST upload the PDF of your google-docs containing workflows for ALL 64 goals (16 goals per member).**
 - **For 8 users, 64 workflows (16 workflows per member). That means it will be a complete submission of MS1.**
 - **Submission Link: <https://forms.gle/YnVEoNp5iYYcMm1v8>**

Possible event type:

- UIE - - user input to trigger event
- UID - - user input to be considered as data
- OP – display content (output)
- VL – validation check
- VR – verification check
- DP – fetching data from file system and process it to get some calculated outcome (data processing)

NOTE:

there can be workflows for common **processes** as follows (**BUT, these are NOT GOALS**):

Process-1: Login			
			event type
Workflow:	event-1	Enter username(must be 4 digit number) and password	VL
	event-2	Validate login credentials against database	VL
	event-3	Verify user role and permissions	VR.
	event-4	If login is successful, Open dashboard(role)	OP

Process-2: SignOut			
			event type
Workflow:	event-1	Button click for signout	UIE
	event-2	Take user back to login page	UIE

Process-n: Change Password			
			event type
Workflow:	event-1	Click the “Change Password” button from dashboard.	UIE
	event-2	Enter old password	UID
	event-3	Enter new password	UID
	event-4	Re-enter new password for confirmation	UID
	event-5	Validates that new passwords match	VL
	event-6	Verify old password with database	VR
	event-7	If valid, update password in user record	DP

	event-8	Show success message: "Password updated"	OP

Workflow of user specific goals:

User-1 name: Applicant			
User-1, Goal - 1	Description of Goal-1: View e-Visa Info - User can see visa info in category wise.		event type
Workflow:	event-1	After LogIn the User is on the MAIN DASHBOARD.	OP
	event-2	The user clicks "View e-Visa Info".	UIE
	event-3	System shows the Visa Info page (visa type combobox + info area).	OP
	event-4	The user selects a visa type from the combobox.	UID
	event -5	The user clicks "Load".	UIE
	event -6	If no visa type selected → system shows warning else → system displays the visa information in the text area.	VL / OP
	event -7	The user clicks "Back" to return to the Applicant Dashboard.	UIE
	event -8	System shows Applicant Dashboard.	OP
User-1, Goal-2	Description of Goal-2: Apply for New Visa (create & submit) - Fill application form and submit		
Workflow:	event-1	After LogIn the user is on the Applicant Dashboard.	OP
	event-2	User clicks "Apply for Visa".	UIE
	event-3	The system shows the Application Form (all fields).	OP
	event-4	The user fills the required fields (full name, passport no, nationality, mother language, visa type, purpose, contact email) and selects gender.	UID
	event-5	User clicks "Submit".	UIE

	event-6	If any required field missing → system shows warning (validation) else → system allows submit.	VL / OP
	event-7	If gender not selected → system shows warning	VL / OP
	event-8	If validation passes → system accepts submission and shows "Application received."	VR / OP
	event-9	The system clears the form fields.	DP, OP
	event-10	The user clicks "Back" to the Applicant Dashboard.	UIE
	event-11	System shows Applicant Dashboard.	OP
<hr/>			
User-1, Goal-3	Description of Goal-3: Find Your Application ID - User will get Application ID by using their passport number to search.		
Workflow:	event-1	After LogIn the user is on the Applicant Dashboard.	OP
	event-2	User clicks "Find Application ID".	UIE
	event-3	The system shows the Find Application scene (passport input + result area).	OP
	event-4	User enters passport number.	UID
	event-5	User clicks "Find".	UIE
	event-6	If the passport field is empty → system shows a warning else → system searches and responds.	VL / DP / OP
	event-7	If no matching applications → system shows warning else → system shows matching application details in the text area and shows "Applications Found" info.	OP
	event-8	The user clicks "Back" to the Applicant Dashboard.	UIE
	event-9	System shows Applicant Dashboard.	OP
<hr/>			

User-1, Goal-4	Description of Goal-4: .Check & Update Application - Users can check their application and update the application		
Workflow:	event-1	After LogIn in the user is on the Applicant Dashboard.	OP
	event-2	The user clicks "Check / Update Application".	UIE
	event-3	System shows Update scene (Application ID input + current details fields).	OP
	event-4	User enters Application ID.	UID
	event-5	User clicks "Search".	UIE
	event-6	If Application ID is empty → system shows warning else → system shows the application's current name, email and passport fields.	VL / OP
	event-7	If no application with that ID → system shows warning	OP
	event-8	The user edits one or more fields (new name, new email, new passport).	UID
	event-9	User clicks "Update".	UIE
	event-10	If all new fields are empty → system shows warning else → system updates the application and shows "Update Successful"	VL / OP
	event-11	After update → system saves changes and shows confirmation	DP / OP
	event-12	System clears the form/labels.	DP / OP
	event -13	The user clicks "Back" to the Applicant Dashboard.	UIE
	event -14	System shows Applicant Dashboard.	OP
User-1, Goal-5	Description of Goal-5: Provide Travel History - User will provide their travel History.		
Workflow:	event-1	The user is on the Applicant Dashboard.	OP
	event-2	The user clicks "Travel History".	UIE

	event-3	The system shows a Travel History scene (country, from/to date pickers, application ID, table).	OP
	event-4	The user enters the country, chooses from-date and to-date, and enters Application ID.	UID
	event-5	User clicks "Save".	UIE
	event-6	If any required field empty → system shows a warning else → continue.	VL / OP
	event-7	If to-date is before from-date → system shows warning "To-date must be same or after from-date." else → continue.	VL / OP
	event-8	The system saves the travel history and adds the row to the table.	DP / OP
	event-9	The system shows confirmation "Travel history saved successfully."	OP
	event-10	The system clears input fields.	DP / OP
	event-11	The user clicks "Back" to the Applicant Dashboard.	UIE
	event-12	System shows Applicant Dashboard.	OP

User-1, Goal-6	Description of Goal-6: Pay Visa Fee - User will pay the visa fee.		
Workflow:	event-1	The user is on the Applicant Dashboard.	OP
	event-2	The user clicks "Pay Fee".	UIE
	event-3	System shows Pay Fee scene (Application ID search, payable amount label, amount input, receipt area).	OP
	event-4	The user enters Application ID and clicks "Search".	UID / UIE
	event-5	If Application ID empty → system shows error else → system displays the payable amount for that application.	VL / DP / OP
	event-6	If no matching application → system shows warning	OP

	event-7	The user enters the amount and clicks "Pay".	UID / UIE
	event-8	If amount field empty → system shows error else → continue. (VL / OP)	VR / OP
	event-9	If entered amount is not equal payable amount → system shows error else → system processes payment.	VL / OP
	event-10	On success → system shows generated receipt in the receipt area and message .	DP / OP
	event-11	The user clicks "Back" to the Applicant Dashboard.	UIE
	event-12	System shows Applicant Dashboard.	OP
<hr/>			
User-1, Goal-7	Description of Goal-7: Track Application Status - User can track their application status.		
Workflow:	event-1	The user is on the Applicant Dashboard.	OP
	event-2	User clicks "Track Application".	UIE
	event-3	System shows Track Application scene (application ID input + applications table).	OP
	event-4	User enters the Application ID and clicks "Load".	UID / UIE
	event-5	If input empty → system shows warning else → system loads apps.	VL / DP / OP
	event-6	If no matching applications → system shows warning else → system fills the table with the application's status and required action. (OP)	OP
	event-7	The user reviews the table entries (status + required action).	OP
	event-8	The user clicks "Back" to the Applicant Dashboard.	UIE
	event-9	System shows Applicant Dashboard.	OP
<hr/>			

User-1, Goal-8	Description of Goal-8: Generate Receipt of e-Visa - User can generate receipt of visa.		
Workflow:	event-1	The user is on the Applicant Dashboard.	OP
	event-2	User clicks "Generate Receipt".	UIE
	event-3	System shows Generate Receipt scene (Application ID input + receipt area).	OP
	event-4	The user enters the Application ID and clicks "Search".	UID / UIE
	event-5	If input empty → system shows warning else → system searches.	VL / DP / OP
	event-6	If no matching application → system shows warning else → system displays formatted receipt details in the receipt area.	OP
	event-7	The user clicks "Back" to the Applicant Dashboard.	UIE
	event-8	System shows Applicant Dashboard.	OP

User-2 name: Registered Agent			
User-2, Goal-1	Description of Goal-1: Create Client Profiles - Add a client record.		event type
Workflow:	event-1	The user is logged in.	OP
	event-2	The user clicks "Create Client" on Agent Dashboard.	UIE
	event-3	System shows Create Client form (name, passport no, contact). (OP)	OP
	event-4	The user enters client name, passport number and contact.	UID
	event-5	User clicks "Create" (or "Save")	UIE
	event-6	If any field empty → system shows a warning	VL / DP / OP

		else → system saves the client and shows confirmation	
	event-7	System clears the client form fields.	DP / OP
	event-8	The user clicks "Back" to the Registered Agent Dashboard. (UIE)	UIE
	event-9	System shows Registered Agent Dashboard.	OP
<hr/>			
User-2, Goal-2	Description of Goal-2: Check Client List - Registered Agent can check the list of their clients.		
Workflow:	event-1	The user is logged in.	OP
	event-2	The user clicks "Client List" on the Agent Dashboard.	UIE
	event-3	The system shows the Client List page (table with client ID, name, passport, contact).	DP , OP
	event-4	System loads and displays saved client rows in the table; if no clients → system shows warning	DP / OP
	event-5	The user scrolls or inspects the client table.	OP
	event-6	The user clicks "Add Client" to create a new client.	UIE
	event-7	System navigates to Create Client form.	OP
	event-8	The user clicks "Back" to the Registered Agent Dashboard.	UIE
	event-9	System shows Registered Agent Dashboard.	OP
<hr/>			
User-2, Goal-3	Description of Goal-3: Delete and Update Clients - Registered Agent can Delete and Update Clients		
Workflow:	event-1	The user is logged in.	OP
	event-2	The user clicks "Delete / Update Clients" on Agent Dashboard.	UIE
	event-3	System shows the Update/Delete scene (Client ID input + current details labels + new fields).	OP
	event-4	User enters Client ID to search.	UID

	event-5	User clicks "Search".	UIE
	event -6	If Client ID empty → system shows warning else → system finds client and displays current name, contact and passport; if not found → system shows warning	VL / DP / OP
	event-7	User edits any new field(s) (new name, new contact, new passport)	UID
	event-8	User clicks "Update".	UIE
	event-9	If all new fields empty → system shows warning else → system updates the client, saves changes	VL / DP / OP
	event-10	The system clears the update form and labels.	DP / OP
	event-11	User enters Client ID to delete (or reuse the same input).	UID
	event-12	User clicks "Delete".	UIE
	event-13	If Client ID empty → system shows warning else → system deletes the client if found	VL / DP / OP
	event-14	The system clears the form.	DP / OP
	event-15	The user clicks "Back" to the Registered Agent Dashboard.	UIE
	event-16	System shows Registered Agent Dashboard.	OP
<hr/>			
User-2, Goal-4	Description of Goal-4: Apply Visa for Client - Registered Agent can apply visa for client.		
Workflow:	event-1	User is logged in.	OP
	event-2	User clicks "Prepare Application" (Apply Visa for Client) on Agent Dashboard.	UIE
	event-3	The system shows the Client Application form (clientId, client name, passport, nationality, mother language, visa type, gender, agent email, client email).	OP

	event-4	The user fills all fields and selects gender and visa type.	UID
	event-5	If any required field is empty or visa type not selected → system shows warning else → allow submit. (VL / OP)	VL / OP
	event-6	User clicks "Submit".	UIE
	event-7	If submission conflict or missing info → system shows appropriate warning else → system accepts application and shows confirmation	VR / DP / OP
	event-8	The system clears the application form fields.	DP / OP
	event-9	The user clicks "Back" to Registered Agent Dashboard.	UIE
	event-10	System shows Registered Agent Dashboard.	OP

User-2, Goal-5	Description of Goal-5: Provide Client Travel History - Registered Agent can provide clients Travel History		
Workflow:	event-1	The user is logged in.	OP
	event-2	The user clicks "Client Travel History" on Agent Dashboard.	UIE
	event-3	The system shows a Travel History scene (country, from/to dates, client ID, table).	OP
	event-4	The user enters the country, picks from-date and to-date, and enters client ID. (UID)	UIE
	event-5	User clicks "Save".	UIE
	event-6	If any field is empty → system shows warning "Please fill in all fields." else → continue.	VL / OP
	event-7	If to-date is before from-date → system shows warning else → continue. R5-event-8 — System saves travel history and adds the new row to the table.	VL / OP

	event-8	System saves travel history and adds the new row to the table	OP
	event-9	System shows confirmation "Travel history saved successfully."	" OP
	event-10	The system clears the travel-history input fields.	DP / OP
	event-11	User clicks "Back" to the Registered Agent Dashboard.	UIE
	event-12	System shows Registered Agent Dashboard.	OP
User-2, Goal-6	Description of Goal-6: Manage Clients Payments		
Workflow:	event-1	The user is logged in.	OP
	event-2	The user clicks "Client Payments" on Agent Dashboard.	UIE
	event-3	System shows Payments scene (client ID search, payable amount label, amount input, receipt area).	OP
	event-4	The user enters the client ID and clicks "Search".	UID / UIE
	event-5	If client ID empty → system shows warning else → continue.	VL / OP
	event-6	The user enters the amount in amountTextField and clicks "Pay".	UID / UIE
	event-7	If amount empty → system shows warning else → continue.	VL / OP
	event-8	If entered amount is not equal payable amount → system shows warning else → system processes payment, shows generated receipt in receipt area.	VL / DP / OP
	event-9	System clears payment input fields (amount and client search).	DP , OP
	event-10	User clicks "Back" to the Registered Agent Dashboard.	UIE

	event-11	System shows Registered Agent Dashboard.	OP
User-2, Goal-7	Description of Goal-7: Check Client Application Status - Registered Agent can check the status of clients application.		
Workflow:	event-1	The user is logged in.	OP
	event-2	The user clicks "Track Clients' Applications" on Agent Dashboard.	UIE
	event-3	System shows Track Applications scene (client ID input + applications table).	OP
	event-4	The user enters the client ID and clicks "Apply Filter" / "Search".	UID / UIE
	event-5	If client ID empty → system shows warning else → system loads that client's applications.	VL / DP / OP
	event-6	If no matching applications → system shows warning else → system populates table rows for each application.	OP
	event-7	For each application the system shows status and a suggested required action (Pending→"Submit required documents", Approved→"Collect visa", Rejected→"Review rejection reason", else→"Contact support").	DP / OP
	event-8	The user inspects the table entries.	OP
	event-9	The user clicks "Back" to the Registered Agent Dashboard.	UIE
	event-10	System shows Registered Agent Dashboard.	OP
User-2, Goal-8	Description of Goal-8: View Clients Applications Summary - Registered Agent can see clients applications status summary in a Pie Chart.		
Workflow:	event-1	The user is logged in.	OP
	event-2	The user clicks "Clients Applications Summary" on Agent Dashboard.	UIE
	event-6	System displays a summary Pie Chart of the applications.	VL

	event-7	System annotates each part with required action based on status (Pending/Approved/Rejected).	DP / OP
	event-8	The user reviews the summary.	OP
	event-9	The user clicks "Back" to the Registered Agent Dashboard.	UIE
	event-10	System shows Registered Agent Dashboard.	OP

User-3 name: Visa Officer

New goal - view notice board

User-3, Goal-1	Description of Goal-1: Application Review Panel — open and view new applications to check basic details		event type
Workflow:	event-1	Login process - Enter username and password	See log in process.
	event-3	Verify user role and permissions	VR
	event-4	If login successful, load Visa Officer dashboard	OP
	event-5	Click Application Review Button.	UIE
	event-6	Load list of applications with status = SUBMITTED or READY_FOR REVIEW from in-memory list. .	DP
	event-7	Display applications in a TableView (ID, name, visa type, submitted date).	OP
	event-8	Click on a row or Open to view full application detail.	UIE
	event-9	Fetch full application details (personal info, documents, payment status, travel history).	DP
	event-10	Show application detail pane.	OP
	event-11	Click Back	UIE
	event-12	Return to review list	OP

User-3, Goal-2	Description of Goal-2: Document Verification Tool — view uploaded files and mark valid/invalid		
Workflow:	event-1	Login process execution.	See login process from goal-1
	event-2	From application detail click on button Documents or Verify Documents.	UIE
	event-3	Load document list (file names/paths, types) for the application.	DP

	event-4	Display list of documents.	OP
	event-5	Select a document to preview (open image/pdf).. .	UIE/DP/OP.
	event-6	Click Valid or Invalid for a document. .	UIE/UID.
	event-7	Validate selection and optional comment (non-empty if marking Invalid).	VL
	event-8	Save verification result to document record (<i>verificationStatus</i>)	DP
	event-9	Append a note to action log.	DP
	event-10	Show updated verification status on screen.	OP
<hr/>			
User-3, Goal-3	Description of Goal-3: Payment Verification System — check payment info and mark payments Verified or Flagged		
Workflow:	event-1	Login process execution.
	event-2	From application detail click Payment or Check Payment.	UIE.
	event-3	Load payment record (amount, date, receipt id, receipt file).	DP.
	event-4	Display payment details and receipt preview..	OP.
	event-5	Compare displayed payment amount against expected fee (automatic check). .	(DP → VR).
	event-6	If OK, click Mark Verified; if not, click Flag Payment.	(UIE / UID)
	event-7	If Flag: enter a short reason.	UID
	event-8	Validate input (reason non-empty if flagged).	VL
	event-9	Save payment status (<i>VERIFIED</i> or <i>FLAGGED</i>) and add action log entry.	DP
	event-10	Show confirmation message.	OP
<hr/>			
User-3, Goal-4	Description of Goal-4: View table of applicants with search/filter		
Workflow:	event-1	Login process execution.	UIE.

	event-2	Open Applicant Dashboard from Officer menu.	
	event-3	Load applicant summaries into TableView (name, visa type, status, assignee).	DP.
	event-4	Display table and filter controls (status dropdown, search box).	OP.
	event-5	Enter search text or pick a filter.	UID.
	event-6	Validate search input (optional length/characters).	VL
	event-7	Apply filter to the list	(DP
	event-8	refresh table.	OP)
	event-9	Click an applicant row to open detail.	(UIE → OP)
	event-10		
<hr/>			
User-3, Goal-5	Description of Goal-5: Visa Decision Manager — approve or reject applications and save decision		
Workflow:	event-1	Open the application assigned to you in detail view.	(UIE → OP).
	event-2	Review verification results (documents, payment, travel notes).	(DP → OP).
	event-3	Click Approve or Reject (or Recommend Approve if Issuer finalizes).	UIE.
	event-4	If Reject or RecommendApprove, enter a short reason/comment.	UID.
	event-5	Validate reason if required.	VL.
	event-6	Save decision to application record (status, decisionBy, decisionDate, decisionReason).	DP
	event-7	f approved and system design allows officer to issue: call e-visa generation workflow (handoff). Otherwise set status = READY_FOR_ISSUE and forward to Issuer.	(DP / OP)
	event-8	Show confirmation (Decision saved / forwarded).	OP
<hr/>			
User-3,	Description of Goal-6: Renewal & Cancellation Manager —		

Goal-6	review and process requests		
Workflow:	event-1	Open Renewals & Cancellations list from menu.	UIE.
	event-2	Load pending renewal/cancellation requests from in-memory list.	DP.
	event-3	Display requests in TableView.	OP.
	event-4	Click a request to open details (include original application info).	(UIE → DP → OP).
	event-5		
	event-6		
	event-7	Check related data (existing visa dates, payment if required)..	(DP → VR).
	event-8	Choose Approve or Reject request; enter reason if rejecting.	(UIE → UID)
	event-9	Validate reason	VL
	event-10	Save decision to request record and update application status.	DP
	event-11	Show confirmation message and (optionally) forward to Issuer for issuance/closure.	OP
User-3, Goal-7	Description of Goal-7: Travel History Checker — view travel entries and optionally flag suspicious entries		
Workflow:	event-1	From application detail click Travel History.	UIE.
	event-2	Load travel entries for that applicant (country, from/to dates, notes).	DP.
	event-3	Display travel history table.	OP.
	event-4	Select an entry and click Flag Suspicious (if needed).	(UIE / UID).
	event-5	Enter short reason for flagging.	UID.
	event-7	Save flag to travel entry	DP
	event-8	Show update/confirmation on screen.	OP

User-3, Goal-8	Description of Goal-8: Support & Report Center — read support messages, reply or add internal notes.		
Workflow:	event-1	Click Support & Reports or open message panel for current application.	UIE.
	event-2	Load support messages linked to the application (or global messages assigned to officer).	DP.
	event-3	Display message list and details pane.	OP.
	event-4	Click Reply or Add Internal Note.	UIE.
	event-5	Enter reply or note text.	UID.
	event-6	Validate message (non-empty).	VL
	event-7	Save reply/note to message thread or application notes.	DP
	event-8	Show confirmation and update message list.	OP

User-4 name: Issuer .

User-4, Goal-1	Description of Goal-1: View applications ready for issuing (filter + GUI).		event type
Workflow:	event-1	Login process - Enter username and password	See log in process.
			VL
			VR
	event-4	If login successful, load Issuer dashboard	OP
		Click Ready for Issuance.	UIE
	event-5	Load applicant summaries into TableView (name, visa type, status, assignee)..	DP
	event-6	Display table and filter controls (status dropdown, search box).	.OP
	event-7	Use filters (date range, visa type) and search box	UID
	event-9	Apply filter to the list and refresh table.	DP/OP
	event-10	Click an applicant row to open detail	UIE/OP
User-4, Goal-2	Description of Goal-2: Generate simple e-visa file (text + table + QR).		
Workflow:	event-1	Login process execution	See login process from Goal-1
	event-2	Click on button to open an application marked READY_FOR_ISSUE	UIE
	event-3	Click Generate e-Visa PDF	UIE
	event-4	Fetch application and decision data needed for the e-Visa (name, passport, validFrom, validTo).	DP.
	event-5	Construct a EVisa data object (visaid, issuedAt, validFrom, validTo).	DP
	event-6	Click on button to save as PNG.	DP

	event-7	Use iText to create a simple PDF: header, small table of fields.	DP
	event-8	Save PDF to local folder and store PDF path in the EVisa record.	DP
	event-9	Display success message with download button.	OP
<hr/>			
User-4, Goal-3	Description of Goal-3: Attach visa ID & timestamp (constructors / this)		
Workflow:	event-1	When generating e-Visa, compute unique visaId (e.g., V-YYYYMMDD-rand) and issuedAt = now.	DP.
	event-2	Call new EVisa(visaId, appId, issuedAt, validFrom, validTo, issuedBy) in code (constructor uses this).	DP.
	event-3	Save EVisa object into eVisaList and link to application (application.eVisaId = visaId).	DP.
	event-4	Display the visaid and issuedAt on screen..	OP.
	event-5
<hr/>			
User-4, Goal-4	Description of Goal-4: Mark application as Issued (setter + persistence)		
Workflow:	event-1	After e-Visa creation, call application.setStatus(ISSUED) and application.setEvisaId(visaId).	DP.
	event-2	Persist change to in-memory list and optionally write to backup (CSV/JSON).	DP.
	event-3	Update application row in UI to show ISSUED status.	OP.
	event-4	Log action in ActionLog (actorId, action = ISSUED, date).	DP.
	event-5	Show confirmation to Issuer.	OP.
<hr/>			
User-4, Goal-5	Description of Goal-5: Notify applicant (write to log / Alert)		

Workflow:	event-1	After marking issued, prepare notification text (visald, download link).	DP.
	event-2	Append notification to NotificationList or ActionLog.	DP.
	event-3	Display an on-screen alert to Issuer: "Applicant notified."	OP.
	event-4	Add message to applicant's messages list so they see it in their Dashboard.	(DP → OP).
	event-5
<hr/>			
User-4, Goal-6	Description of Goal-6: Revoke an issued visa (change state & write to revoke log)		
Workflow:	event-1	Open Issued History and select an issued visa; click Revoke.	UIE.
	event-2	Show a small dialog requesting reason and confirm revoke.	(OP → UID).
	event-3	Validate reason (non-empty).	VL.
	event-4	Set eVisa.status = REVOKED and update linked application.status = REVOKED.	DP.
	event-5	Append a revokeLog entry (visald, appId, revokedBy, date, reason).	DP.
	event-6	Display confirmation and update UI.	OP
<hr/>			
User-4, Goal-7	Description of Goal-7: View issued visa history (read CSV / TableView)		
Workflow:	event-1	Open Issued Visa History from Issuer menu.	UIE.
	event-2	Load eVisaList from memory or read persisted CSV file (if using file restore).	DP.
	event-3	Display history in TableView (VisaID, AppID, IssuedAt, Status).	OP.
	event-4	Enter search/filter (visald, date range) and apply.	(UID → VL → DP → OP).

	event-5		
	event-6		
	event-7		
	event-8	Click an item to view/download the PDF.	(UIE → DP → OP).
<hr/>			
User-4, Goal-8	Description of Goal-8: Export issued list to CSV or PDF report (file I/O + iText + chart image).		
Workflow:	event-1	Click Export Issued List and choose format CSV or PDF.	(UIE / UID).
	event-2		
	event-3	Fetch selected records from eVisaList (respect date range/filter).	DP.
	event-4	Build CSV rows and open FileChooser to save file; write file..	(DP → OP).
	event-5		
	event-6	Build a simple PDF report with a table of records; optionally include a small chart image (optional). Use iText for PDF	(DP → OP)
	event-7		
	event-8	Save file and show success dialog with file path.	OP.
	event-9	Log export action to ActionLog.	DP.

User-5 name: Operation manager

User-5, Goal-1	Description of Goal-1: Operation Dashboard		event type
Workflow:	event-1	Login process - Enter username and password	See login process
	event-2	Validate login credentials against database	VL
	event-3	Verify user role and permissions	VR
	event-4	If login successful, load Operation Manager dashboard	OP.
	Event-5	From the main menu click "Operation Manager Dashboard".	UIE
	Event-6	Load dashboard layout and available function list as button from local config.	DP,OP
	Event-7	Display functional buttons (New/Unassigned, Approved/Denied, Backlog, Targets, Reports, Notices).	OP
User-5, Goal-2	Description of Goal-2: View list of newly applied / unassigned / current-day pending applications		
Workflow:	event-1	From the dashboard click "New / Unassigned Applications".	UIE
	event-2	Fetch today's submitted and unassigned applications from storage.	DP
	event-3	Display applications in a TableView (columns: AppID, Type, SubmittedAt, Status).	OP
	event-4	Choose a visa type from ComboBox filter and click "Apply Filter".	OP
	Event-5	Choose a visa type from the ComboBox filter and click "Apply Filter".	UID, UIE
	Event-6	Apply filter over fetched list and refresh table.	DP, OP
	Event- 7	Select an application row and click "Assign".	UIE
	Event- 8	Show officer selection list (ComboBox) and available officers (VR: check current load).	OP,VR

	Event-9	Choose officer and click "Confirm Assign"; if officer available assign and save else show "Officer not available".	UID ,UIE, DP,OP
	Event-10	Show assignment confirmation and update application row status to "Assigned".	OP,DP
<hr/>			
User-5, Goal-3	Description of Goal-3: View dashboard list of approved / denied / flagged applications		
Workflow:	event-1	From the dashboard click "Decisions (Approved/Denied/Flagged)".	UIE
	event-2	Fetch applications filtered by statuses Approved, Denied, Flagged	DP
	event-3	Display results in TableView grouped by status with quick filters	OP
	Event- 4	Type search text or pick a status filter then click "Search/Filter".	UID,UIE
	Event- 5	Apply search and refresh tables.	DP, OP
	event-6	Click a flagged row to open the detail pane and show why it is flagged (documents, notes).	UIE, DP,OP
	event-7	If manager requests review - add note & send it to assigned officer.	UID, UIE,DP,OP
<hr/>			
User-5, Goal-4	Description of Goal-4: View list of visas pending more than their due day		
Workflow:	event-1	From the dashboard click "Backlog / Overdue".	UIE
	event-2	Input threshold days (e.g., 7) or choose preset and click "Load".	UID, UIE
	event-3	Fetch applications older than threshold (DAYS.between(submitted, today) > threshold).	DP
	event-4	Display overdue list with days-waiting, priority marker, assigned officer.	OP
	event-5	Select one or many rows and click "Escalate" or "Reassign".	UIE
	event-6	If "Reassign" - pick new officer;	UID , VR , DP ,OP

		verify availability; save assignment; else show error.	
	event-7	Show summary count (total overdue) and option to export or notify officers.	OP
<hr/>			
User-5, Goal-5	Description of Goal-5: Set targets and re-submit flagged visas to visa approver		
Workflow:	event-1	From the dashboard click "Targets & Flagged Handling".	UIE
	event-2	Load current targets and flagged application list.	DP, OP
	event-3	In the "Set Target" area enter target values (e.g., reviews per day) and click "Save".	UID, UIE
	event-4	Validate target values (must be positive integers); if invalid show error else persist.	VL,DP,OP
	event-5	In flagged list select flagged application(s) and click "Resubmit to Approver".	UIE
	event-6	Add an optional manager note (UID) and click "Confirm Resubmit".	UID, UIE
	event-7	Save resubmission record and push application to approver queue (DP); mark local status = "Resubmitted".	DP ,OP
	event-8	Show confirmation message with resubmission ID and link to "Resubmitted list"	OP
<hr/>			
User-5, Goal-6	Description of Goal-6: See status for resubmitted visas		
Workflow:	event-1	From the dashboard click "Resubmitted Applications" (or use a quick link from resubmit confirmation).	UIE
	event-2	Fetch resubmitted items and their processing status (Pending with Approver, Reviewed, Decision).	DP
	event-3	Display list with columns: ApplID, ResubmittedAt, Approver, CurrentStatus, Notes.	OP
	event-4	Click an item to view timeline (original flag reason,	UIE, DP, OP

		manager note, approver action).	
	event-5	If needed, click "Add Internal Note" to annotate and save.	UID,UIE,DP, OP
User-5, Goal-7	Description of Goal-7: Generate simple report (total applications today; approved vs pending; most common application type)		
Workflow:	event-1	From the dashboard click "Reports".	UIE
	event-2	Choose report preset "Daily Summary" or enter date range and click "Generate".	UID,UIE
	event-3	Compute metrics: total applications (today), counts by status (approved vs pending), most common visa type.	DP
	event-4	Display report summary (small table + simple text metrics).	OP
	event-5	Show "Report generated" confirmation and show quick visual summary (counts).	OP
	event-6	If no data for the range → show "No data" message.	VL,OP
User-5, Goal-8	Description of Goal-8: Publish Notices		
Workflow:	event-1	From dashboard click "Publish Notice".	UIE
	event-2	Load Notice form (Title, Body, PublishDate optional, Audience checkboxes).	DP, OP
	event-3	Enter title and body (UID) and optionally pick publish date/audience.	UID
	event-4	Click "Validate"; check title/body non-empty and publish date valid; if invalid show error else enable Publish.	UIE,VL,OP
	event-5	Click "Publish" (UIE) → save notice and set visibility (DP) → push notification to dashboards if immediate.	DP, OP
	event-6	Show success "Notice published" and display notice preview on top of dashboard.	OP

User-6 name: Policy Manager

User-6, Goal-1	Description of Goal-1: Visa Rule Editor Add or edit simple rules	event type
Workflow:	event-1 Click Visa Rule Editor	UIE
	event-2 Load rules list	DP
	event-3 Display rules and New Rule button	OP
	event-4 Click New Rule and enter rule fields	UIE, UID
	event-5 Validate required fields and duplicate.	VL, VR
	event-6 Save rule and confirm	DP, OP
User-6, Goal-2	Description of Goal-2: Processing Time settings	
Workflow:	event-1 Click Processing Time Settings	UIE
	event-2 Load visa types and times.	DP
	event-3 Display editable time fields	OP
	event-4 Edit a time (enter days)	UID
	event-5 Validate positive integer	VL
	event-6 Save changes and show confirmation	DP,OP
User-6, Goal-3	Description of Goal-3: Requirement Checklist Set which documents are mandatory for each visa type	
Workflow:	event-1 Click Requirement Checklist	UIE
	event-2 Load visa types and their checklists	DP
	event-3 Display checklist for selected visa type.	OP
	event-4 Toggle required checkboxes	UID
	event-5 Validate	VL
	event-6 Save checklist changes and confirm	DP, OP

User-6, Goal-4	Description of Goal-4: View Policy Log See recent policy changes		
Workflow:	event-1	Click Policy Log	UIE
	event-2	Load policy log entries	DP
	event-3	Display log table	OP
	event-5	Validate filters(if used)	VL
	event-6	Apply filter and refresh view	DP, OP
User-6, Goal-5	Description of Goal-5: Enable/Disable Features managers need to quickly switch features (turn demo mode on in a class, disable feedback during maintenance).		
Workflow:	event-1	Click Feature Flags	UIE
	event-2	Verify current user can edit flags	VR
	event-3	Load flags into UI	DP
	event-4	Toggle a feature checkbox	UID
	event-5	Validatte (if sensitive)	VL
	event-6	Save flags and log change	DP, OP
User-6, Goal-6	Description of Goal-6: Publish Instruction Updates Clear up applicant confusion or reflect policy changes by updating the help/instructions visible on the public site.		
Workflow:	event-1	Click Instruction Updates	UIE
	event-2	Load current instruction	DP
	event-3	Display Instructions and Edit Button	OP
	event-4	Click Edit and enter new text.	UIE,UID
	event-5	Validate non-empty	VL
	event-6	Save updated instructions and show preview	DP, OP
User-6, Goal-7	Description of Goal-7: Review Policy Impact Before changing a rule, managers want to know how many		

	applications it will affect		
Workflow:	event-1	Click Policy Impact	UIE
	event-2	Load recent apps and rules	DP
	event-3	Display a rule selector	OP
	event-4	Choose a rule to simulate	UID
	event-5	Run simple filter to count affected apps	DP
	event-6	Show summary count and sample list	OP
<hr/>			
User-6, Goal-8	Description of Goal-8: Approve Major changes Confirm and save a policy change		
Workflow:	event-1	Click changes requests	UIE
	event-2	Load pending requests	DP
	event-3	Display request list with Open button	OP
	event-4	Open a request and read details	UIE, OP
	event-5	Enter approve/reject comment	UID
	event-6	Save decision and update request status	DP,OP

User-7 name: Finance Clerk

User-7, Goal-1	Description of Goal-1: Finance Clerk can view payment summary and dashboard details after login		event type
Workflow:	event-1	Login process is executed	UIE
	event-2	System loads Finance Dashboard scene showing summary cards — “Total Payments,” “Pending Verifications,” “Refunds Processed,” and side menu with actions: Verify Payment, Issue Refund, Reports, Export Data	OP
	event-3	System fetches financial data (totals, pending, refunded) from FinanceRecord table	DP
	event-4	<p>Validate fetched data integrity</p> <ul style="list-style-type: none"> • If valid → display totals on dashboard cards. • If invalid → show “Error loading dashboard data.” 	VL,OP
	event-5	<p>Verify data belongs to logged-in Finance Clerk</p> <ul style="list-style-type: none"> • If verified → display data on cards. • If not verified → show “Access denied.” 	VR,OP
	event-6	Display verified financial data on dashboard cards.	DP,OP
User-7, Goal-2	Description of Goal-2: Finance Clerk can verify an applicant's payment record for visa processing		
Workflow:	event-1	Login process is executed	UIE
	event-2	From Dashboard click “Verify Payment.”	UIE
	event-3	Display “Verify Payment” scene showing input field for Applicant ID / Application No. and a	OP

		“Search” button	
	event-4	Clerk enters Applicant ID or Application No. and clicks Search button	UID,UIE
	event-5	Validate input field <ul style="list-style-type: none"> • If valid → continue to fetch payment record. • If invalid → show ‘Invalid Applicant ID’. 	VL,OP
	event-6	Verify payment record from PaymentRecord database <ul style="list-style-type: none"> • If found → show details (Applicant ID, Amount, Date, Transaction ID, Status). • If not found → show “Payment not found.” 	VR,DP,OP
	event-7	Click “Mark as Verified.”	UIE
	event-8	System updates record status to “Verified,” generates receipt, and displays success scene <ul style="list-style-type: none"> • If successful → show “Payment verified successfully.” • If failed → show “Unable to verify payment, try again.” 	DP,OP
	event-9	Show confirmation message “Payment verified successfully” and return to Dashboard	OP
User-7, Goal-3	Description of Goal-3: Finance Clerk can issue refunds for cancelled or rejected applications		
Workflow:	event-1	Login process is executed	UIE
	event-2	From Dashboard click “Issue Refund.”	UIE

	event-3	Display “Refund Form” scene with fields — Application ID, Refund Amount, Reason, and “Submit Refund” button — OP	UIE
	event-4	Clerk fills all the fields and clicks “Submit Refund.”	UID,UIE
	event-5	<p>Validate all inputs</p> <ul style="list-style-type: none"> • If valid → continue to check refund eligibility. • If invalid → show “Please fill valid refund details.” 	VL,OP
	event-6	<p>Verify refund eligibility using application status</p> <ul style="list-style-type: none"> • If eligible → continue to process refund. • If not eligible → show “Refund not allowed for this case.” 	VR,OP
	event-7	<p>Save refund record, update application as “Refunded,” and generate refund receipt</p> <ul style="list-style-type: none"> • If successful → show “Refund processed successfully.” • If fails → show “Unable to process refund, try again.” 	DP
	event-8	<p>Show message “Refund processed successfully” and redirect to Dashboard</p>	OP
User-7, Goal-4	Description of Goal-4: Finance Clerk can generate daily or monthly financial reports		
Workflow:	event-1	Login process is executed	
	event-2	From Dashboard click “Generate Report”	UIE
	event-3	Display “Generate Report” scene with dropdowns: Report Type (Daily/Monthly), Date Range, and	UIE,OP

		“Generate” button	
	event-4	Clerk selects report type and date range, then clicks “Generate.”	UID,UIE
	event-5	<p>Validate date inputs</p> <ul style="list-style-type: none"> • If valid → continue to verify transactions. • If invalid → show “Invalid date range.” 	VL,OP
	event-6	<p>Verify transaction records exist within selected range</p> <ul style="list-style-type: none"> • If records exist → continue to generate report. • If none → show “No records found.” 	VR,DP,OP
	event-7	<p>System processes payment and refund data, calculates totals, and generates report summary</p> <ul style="list-style-type: none"> • If successful → display report summary. • If fails → show “Unable to generate report.” 	DP
	event-8	Display report on screen with totals and “Download Report” button	OP
	event-9	<p>Clerk clicks “Download Report”; system exports file as PDF</p> <ul style="list-style-type: none"> • If successful → show “Report downloaded successfully.” • If fails → show “Unable to download report.” 	UIE,DP,OP

User-7, Goal-5	Description of Goal-5: Finance Clerk can export payment and refund data to CSV file		
Workflow:	event-1	Login process is executed	UIE
	event-2	From Dashboard click “Export Data.”	UIE
	event-3	Display “Export Data” scene showing format options: CSV, XLSX, and “Export” button	OP
	event-4	Clerk selects desired format and clicks “Export.”	UID,UIE
	event-5	<p>Validate selection</p> <ul style="list-style-type: none"> • If valid → continue to verify data availability. • If invalid → show “Please select export format.” 	VL,OP
	event-6	<p>Verify data available for export</p> <ul style="list-style-type: none"> • If available → generate export file. • If none → show “No data found.” 	VR,OP
	event-7	<p>System processes and generates export file</p> <ul style="list-style-type: none"> • If successful → display “File ready for download.” • If fails → show “Unable to generate export file.” 	DP
	event-8	Display “File ready for download” with download button	OP
User-7, Goal-6	Description of Goal-6: Finance Clerk can review pending payments that require manual verification		
Workflow:	event-1	Login process is executed	UIE
	event-2	From Dashboard click “Pending Payments.”	UIE
	event-3	Display “Pending Payments” scene listing all pending payment entries with “Verify” and	OP

		“Reject” buttons	
	event-4	<p>System loads pending records</p> <ul style="list-style-type: none"> • If records exist → display list. • If none → show “No pending payments.” 	VR,DP,OP
	event-5	Clerk clicks “Verify” or “Reject.”	UIE
	event-6	<p>Validate selection —</p> <ul style="list-style-type: none"> • If valid → update payment status accordingly. • If invalid → show “Invalid action.” 	VL,OP
	event-7	<p>System updates payment status accordingly</p> <ul style="list-style-type: none"> • If successful → show “Status updated successfully.” • If failed → show “Unable to update status.” 	DP
User-7, Goal-7	Description of Goal-7: Finance Clerk can search and filter transaction history by applicant name, ID, or date		
Workflow:	event-1	Login process is executed	UIE
	event-2	From Dashboard click “Transaction History.”	UIE
	event-3	Display “Transaction History” scene showing search bar, filters (Name, ID, Date), and “Search” button	OP
	event-4	Clerk enters keyword or selects filter options, then clicks “Search.”	UID,UIE
	event-5	Validate input fields	VL,OP

		<ul style="list-style-type: none"> • If valid → continue to verify matching records. • If invalid → show “Please enter valid search data.” 	
	event-6	<p>Verify matching records exist</p> <ul style="list-style-type: none"> • If found → display filtered transactions table. • If none → show “No results found.” 	VR,OP,DP
	event-7	Display filtered transactions table (Order ID, Applicant Name, Amount, Status, Date)	OP
<hr/>			
User-7, Goal-8		Description of Goal-8: Finance Clerk can send issue reports or support requests for payment discrepancies	
Workflow:	event-1	Login process is executed	UIE
	event-2	From Dashboard click “Report Issue.”	UIE
	event-3	Display “Report Issue” scene with fields — Subject, Message, Optional Screenshot, and “Send” button	OP
	event-4	Clerk fills in the details and clicks “Send.”	UID, UIE
	event-5	<p>Validate required fields</p> <ul style="list-style-type: none"> • If valid → continue to verify support connection. • If invalid → show “All fields required.” 	VL, OP
	event-6	<p>Verify connection with Support queue</p> <ul style="list-style-type: none"> • If connected → send message successfully. • If not connected → show “Unable to send at this time.” 	VR, DP
	event-7	Display confirmation “Issue submitted successfully” and return to Dashboard	

		<ul style="list-style-type: none">● If sent → show “Issue submitted successfully.”● If failed → show “Issue submission failed, try again.”	
--	--	---	--

User-8 name: Support Agent

User-8, Goal-1	Description of Goal-1: Support Agent can view dashboard summary after login.		event type
Workflow:	event-1	Log in process is executed	UIE
	event-2	System loads Support Dashboard scene showing cards — “Total Tickets,” “Pending,” “Resolved,” and side menu with: View Tickets, Respond, Escalate, Reports.	OP
	event-3	System fetches ticket summary data from SupportTicket table.	DP
	event-4	Validate fetched data. • If valid → continue to display. • If invalid → show “Error loading dashboard.”	VL,OP
	event-5	Verify data belongs to logged-in Support Agent. • If verified → show summary on cards. • Else → show “Access denied.”	VR,OP
	event-6	Display verified summary data on dashboard cards (Total, Pending, Resolved).	DP,OP
User-8, Goal-2	Description of Goal-2: Support Agent can view all assigned support tickets.		
Workflow:	event-1	Log in process is executed	UIE
	event-2	From Dashboard click “View Tickets.”	UIE
	event-3	System loads “All Tickets” scene listing all assigned tickets with columns: Ticket ID, User Name, Issue Type, Status, Date.	OP
	event-4	Fetch assigned tickets from SupportTicket database.	DP
	event-5	Verify data availability. • If tickets found → display list. • Else → show “No tickets assigned.”	VR,OP
	event-6	Display verified ticket list on screen.	DP,OP

User-8, Goal-3	Description of Goal-3: Support Agent can respond to a user's support ticket.		
Workflow:	event-1	Log in process is executed	UIE
	event-2	From "All Tickets" click on a specific Ticket ID.	UIE
	event-3	Display "Ticket Details" scene showing user info, issue message, and reply input box.	OP
	event-4	Agent types reply and clicks "Send Response."	UIE,UID
	event-5	Validate reply input. • If valid → continue. • If invalid → show "Please enter a message."	VL,OP
	event-6	Verify ticket status (must be Open or Pending). • If valid → save reply, update ticket log. • Else → show "Cannot reply to closed ticket."	VR,DP,OP
	event-7	Show "Response sent successfully" and return to ticket list.	OP
User-8, Goal-4	Description of Goal-4: Support Agent can escalate an unresolved ticket to higher authority.		
Workflow:	event-1	Log in process is executed	UIE
	event-2	From "Ticket Details" click "Escalate."	UIE
	event-3	Show confirmation popup "Are you sure to escalate this ticket?" with Yes/No buttons.	OP
	event-4	Agent confirms escalation.	UIE
	event-5	Validate ticket eligibility for escalation. • If valid → forward to Senior Support queue. • If invalid → show "Ticket already escalated or closed."	VL,OP
	event-6	Verify ticket ownership and access permission. • If verified → forward to Senior Support queue. • If not verified → show "Access denied for this ticket."	VR,OP
	event-7	System updates status to "Escalated" and logs activity.	DP
	event-8	Show "Ticket escalated successfully."	OP

User-8, Goal-5	Description of Goal-5: Support Agent can close a resolved ticket.		
Workflow:	event-1	Log in process is executed	UIE
	event-2	From “Ticket Details” click “Close Ticket.”	UIE
	event-3	Confirm closure.	UIE
	event-4	Validate ticket resolution state. • If valid → continue. • If invalid → show “Ticket not yet resolved.”	VL,OP
	event-5	Verify ticket ownership and closure permission. • If verified → mark ticket as Closed. • If not verified → show “You are not authorized to close this ticket.”	VR,DP,OP
	event-6	Show message “Ticket closed successfully.”	OP
User-8, Goal-6	Description of Goal-6: Support Agent can search support tickets by user name, ticket ID, or date		
Workflow:	event-1	Log in process is executed	UIE
	event-2	From Dashboard click “Search Tickets.”	UIE
	event-3	Display “Search” scene with fields — Name, Ticket ID, Date, and “Search” button.	OP
	event-4	Agent enters search keyword and clicks “Search.”	UIE,UID
	event-5	Validate input fields. • If valid → continue. • If invalid → show “Please enter valid search data.”	VL,OP
	event-6	Verify matching tickets exist. • If found → show result list. • Else → show “No tickets found.”	VR,DP,OP
	event-7	Display search results list with Ticket ID, User Name, Date, and Status.	DP,OP
User-8, Goal-7	Description of Goal-7: Support Agent can generate daily or monthly support report.		
Workflow:	event-1	Log in process is executed	UIE
	event-2	From Dashboard click “Reports.”	UIE

	event-3	Display “Generate Report” scene with dropdowns: Report Type (Daily/Monthly), Date Range, and “Generate” button.	OP
	event-4	Agent selects type and range, then clicks “Generate.”	UIE,UID
	event-5	Validate inputs. • If valid → continue. • If invalid → show “Invalid date range.”	VL,OP
	event-6	Verify ticket records exist in range. • If found → continue. • Else → show “No records found.”	VR,DP,OP
	event-7	System calculates stats (Total, Resolved, Pending, Escalated) and generates report summary.	DP
	event-8	Display report and “Download PDF” option.	OP
	event-9	Agent clicks “Download PDF”; system exports file.	UIE,OP,DP
	event-10	Show “Report downloaded successfully.”	OP

User-8, Goal-8	Description of Goal-8: Support Agent can send internal issue or system feedback to admin.		
Workflow:	event-1	Log in process is executed	UIE
	event-2	From Dashboard click “Send Feedback.”	UIE
	event-3	Display “Feedback Form” scene with Subject, Message, and “Send” button.	OP
	event-4	Agent fills details and clicks “Send.”	UID,UIE
	event-5	Validate inputs. • If valid → continue. • If invalid → show “All fields required.”	VL,OP
	event-6	Verify connection with Admin support channel. • If connected → send message. • Else → show “Unable to send feedback.”	VR,DP,OP
	event-7	Display “Feedback sent successfully” and return to Dashboard.	OP

