

# CSE213 CRA Report Template

Autumn 2025

Topic: <b>Simulating operations of a Flight training academy</b>		
ID: 2210268	Name: <b>Mohona Hossain Madhu</b>	User1: <b>Student Pilot</b>
		User2: <b>Medical Specialist</b>
ID: 2211176	Name: <b>Sabbir Islam Alvi</b>	User3: <b>Examination Officer</b>
		User4: <b>Financial Officer</b>
ID: 2331611	Name: <b>Md Aman Ullah Al Mubin</b>	User5: <b>Flight Instructor</b>
		User6: <b>Air traffic controller</b>
ID: 2310195	Name: <b>Nusaiba Jafra Jahin</b>	User7: <b>Maintenance Engineer</b>
		User8: <b>Safety Officer</b>

P.T.O

**Possible event type:**

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

Process-1: Login			
			event type
Workflow:	event-1	validate user ID	VL
	event-2	validate password	VL
	event-2	If event-2 is successful: -load the role-specific dashboard on success else: -show error message "User not found"	OP

Process-n: SignOut			
			event type
Workflow:	event-1	User clicks Sign Out.	UIE
	event-2	Redirect to the login page with confirmation.	DP

## Workflow of user-specific goals:

User-1 name: <b>Student Pilot</b>			
User-1, Goal-1	Description of Goal-1: Student Pilot books training session		event type
Workflow:	event-1	Login Process to be executed	See the login process.
	event-2	If the login is successful, go to the Student Pilot dashboard, which includes a navigation bar: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, Leave. The dashboard shows the average flight hours, total flight hours, and an action button to book a flight session.	OP
	event-3	Select Book Flight Session	UIE
	event-4	Checks for any warning message: Medical examination, financial due & pre-flight lesson	VR
	event-5	If event-4 is successful: -show the available slots for the flight with instructor names else: -depending on the verification failure, show the appropriate warning message	DP, OP
	event-8	If the selected slot does not clash with any previous booking: -selected slot is submitted for booking request else: -show error message booking is already available for that period -go to event-5 again	UID  DP
	event-9	If event-8 is successful: -create a provisional booking that shows the status is pending for the instructor to accept	DP
	event-10	Show a confirmation message that the booking request has been sent.	OP

<b>User-1, Goal-2</b>	<b>Description of Goal-2:</b> Student pilot access flight Logbook		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful: the Student Pilot Dashboard appears with navigation tabs: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, Leave. -The student pilot presses the “Logbook” button to access flight record details.	DP
	event-3	If the user presses the filter button: -show filter rules for date, aircraft model, flight time, flight path, instructor name else: -show the unfiltered list in event-4	UIE, UID
	event-4	Display list: -date -aircraft model -flight time -flight path -instructor name	OP
	event-5	If the user presses the Export button: -generate PDF	UIE
<b>User-1, Goal-3</b>	<b>Description of Goal-3:</b> Student pilot applies for the Exam		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Student Pilot Dashboard appears with navigation tabs: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, and Leave. The student pilot presses the “Exams” button to apply for a practical or theoretical exam.	UIE
	event-3	If the user chooses a practical exam: -show practical exam slots with time If the user chooses a theoretical exam: -show theoretical exam with time slots	DP
	event-4	The user selects the desired exam, and the system checks for any prerequisites needed for the exam. If prerequisites are missing for the particular exam,	UID, VL, OP

		show the prerequisite list and go to event-3	
	event-5	If event-4 is successful: -show confirmation message for the registered exam	OP
<b>User-1, Goal-4</b>	<b>Description of Goal-4:</b> Check schedule & upcoming sessions		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful: the Student Pilot Dashboard appears with navigation tabs: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, Leave. -the student pilot presses the “Schedule” button to view upcoming sessions and classes. -The list has an action button that the user can use to cancel a specific flight session	DP UIE
	event-3	Show a list of upcoming theoretical classes, which shows: course name, class timing, and the date of the class.	DP
	event-4	If the user cancels a flight session in event-2: -The user writes the reason for cancelling the session in the remarks	UID
<b>User-1, Goal-5</b>	<b>Description of Goal-5:</b> Book or cancel a Medical Checkup		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful: the Student Pilot Dashboard appears with navigation tabs: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, and Leave. -The student pilot presses the “Medical” button to view or manage medical appointments. -The list has a cancel action button, which can be used to cancel an appointment	DP, UIE
	event-3	If the user presses the ‘Create a new appointment’ button: -show a list of available doctors and their timing slots for a new appointment	DP, UID

	event-4	If event-3 is successful, show the message that the booking is done successfully.	OP
<b>User-1, Goal-6</b>	<b>Description of Goal-6:</b> Exam results and a certificate are available after an exam is passed		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login is successful: the Student Pilot Dashboard appears with navigation tabs: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, Leave.</p> <ul style="list-style-type: none"> <li>-The student pilot presses the “Results” button to view exam outcomes and certificates</li> <li>-Fetch the exam result for the practical and theoretical session with a pass or fail status from the file</li> </ul>	DP
	event-3	<p>If an exam from event-2 is passed: -Create a certificate PDF for the exam</p> <p>else if the exam is not passed: -show message Exam not passed -show a button to reapply for the failed exam</p>	UIE, UID
<b>User-1, Goal-7</b>	<b>Description of Goal-7:</b> Financial Status		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login is successful: -Show the list of outstanding due payments and the last date of payment.</p> <p>-the Student Pilot Dashboard appears with navigation tabs: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, Leave.</p> <p>-The student pilot presses the “Billing” button to view pending dues and payment history.</p> <p>-Download the bill action button downloads the specific bill, and another button ‘Clear bill’ is present</p>	DP UIE, UID
	event-3	Show the list of previously paid bills.	DP
	event-4	<p>If the ‘Clear bill’ button is pressed in event-2”</p> <ul style="list-style-type: none"> <li>-user inputs the transaction ID</li> <li>-a message is sent to the financial officer with the transaction ID to confirm the bill payment</li> </ul>	UIE, UID

<b>User-1, Goal-8</b>	<b>Description of Goal-8:</b> Student pilot applies for leave application		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login is successful: the Student Pilot Dashboard appears with navigation tabs: Dashboard, Logbook, Exams, Schedule, Medical, Results, Billing, Leave.</p> <p>-The student pilot presses the "Leave" button to submit a leave application</p> <p>-Leave the application form box open, which includes data entry boxes: student name, student ID, leave period, and reason for leave application</p>	UIE, UID
	event-3	<p>The system validates the form entries:</p> <p>-checks that the leave period is within valid limits and not overlapping any booked flight or exam</p> <p>-ensures that the reason field is not empty</p>	VL
	event-4	<p>If event-3 is successful:</p> <p>-Display confirmation message</p> <p>else:</p> <p>-show appropriate warning message</p>	VR, OP
	event-5	<p>If event-4 is successful:</p> <p>-System logs the submission date and shows the leave in the Leave history list</p>	DP, OP

<b>User-2 name: Medical Specialist</b>			
<b>User-2, Goal-1</b>	<b>Description of Goal-1:</b> Dashboard view that shows two patient categories, Pre-flight Patients and Regular Patients		event type
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations.</p>	DP



		<ul style="list-style-type: none"> <li>-The medical specialist presses the “Dashboard” tab to view today’s scheduled patients.</li> <li>-the dashboard shows two separate lists of two patient categories, Pre-flight Patients and Regular Patients, scheduled for today and the upcoming week</li> <li>-there is a filter and search option along with the list</li> </ul>	
	event-3	The medical specialist may select either patient from the list and view their previous medical records.	DP
<b>User-2, Goal-2</b>	<b>Description of Goal-2:</b> Medical Specialist conducts pre-flight medical exams and issues clearance		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations.</p> <ul style="list-style-type: none"> <li>-The medical specialist presses the “Pre-flight Exams” tab.</li> <li>-Display a list of upcoming medical assessments scheduled for today</li> </ul>	DP
	event-3	<p>The Medical Specialist selects a pre-flight patient from the list:</p> <ul style="list-style-type: none"> <li>-open the pre-filled medical assessment form</li> <li>-enter the patient’s vision, hearing, and vital-sign results</li> <li>-add any optional remarks</li> </ul>	UID, UIE
	event-4	The system validates the entered data fields and checks the results against the minimum medical thresholds (vision, hearing, vitals)	VR, DP
	event-5	<p>If event-4 is successful:</p> <ul style="list-style-type: none"> <li>-issue medical clearance for the patient</li> <li>-update the patient record with status = “Fit to Fly” and record clearance expiry date</li> </ul> <p>else:</p> <ul style="list-style-type: none"> <li>-update the patient record with status = “Unfit</li> </ul>	OP
<b>User-2,</b>	<b>Description of Goal-3:</b> Medical Specialist conducts medical		

<b>Goal-3</b>	<b>exams</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations.</p> <ul style="list-style-type: none"> <li>-The medical specialist presses the "Regular Patients" tab.</li> <li>-show a list of regular patients registered manually in the system</li> </ul>	DP, OP
	event-3	<p>The Medical Specialist selects a regular patient from the list:</p> <ul style="list-style-type: none"> <li>-Show the patient's previous medical records</li> <li>-enter the patient's current vital signs</li> <li>-enter the patient assessment</li> <li>-prescribe any medication if required</li> </ul>	UIE, UID
	event-4	<p>If a future checkup is to be made:</p> <ul style="list-style-type: none"> <li>-Provide an action Schedule Next Checkup</li> <li>-System checks available slots and conflicts for the selected date</li> <li>-create an appointment for the selected date and send the appointment to the patient</li> </ul>	UID, UIE, DP
<b>User-2, Goal-4</b>	<b>Description of Goal-4:</b> Temporarily suspend the student for medical reasons		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations.</p> <ul style="list-style-type: none"> <li>-The medical specialist presses the "Suspensions" tab.</li> <li>-a form box shows a search bar to search for the student's name</li> <li>-display matching results showing student name, ID, and current flight training status</li> </ul>	UIE, UID
	event-3	The Medical Specialist selects the student from the list, opens the student's current medical assessment.	DP

	event-4	If the specialist identifies a health concern that might affect flight safety: -click the "Suspend Student" option -enter the reason for suspension and any additional notes	DP, UID, UIE
	event-5	Update the student's medical status to "Temporarily Unfit for Flight."	
<b>User-2, Goal-5</b>	<b>Description of Goal-5:</b> Export Medical report		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations. -The medical specialist presses the "Reports" tab. -the dashboard shows a search bar -the medical specialist searches for the desired patient name using ID or name -the medical specialist enters the date range to download the medical history of the patient	UIE, UID, DP
	event-3	After entering the filter rules in event-2, the medical specialist presses the download button to download the PDF file.	UID
<b>User-2, Goal-6</b>	<b>Description of Goal-6:</b> Renew medical clearance		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations. -The medical specialist presses the "Renewals" tab. -show a list of suspended pilots -a search bar shows to search for the suspended pilots	DP
	event-3	The Medical Specialist selects a suspended pilot from the list or searches for the name using the search bar.	UID, UIE

		A medical clearance form box opens.	
	event-4	The medical specialist enters the suspended pilot's current vitals, vision, and a summary as to why the suspension on the medical clearance is removed.	UIE
	event-5	After all the data entry fields have been filled, the medical specialist presses the "Update medical clearance" button.	UID
	even-6	The system validates the entered data fields and checks the results against the minimum medical thresholds (vision, hearing, vitals)	VR, DP
	event7	If event-6 is successful, the medical clearance status is updated.	OP
<b>User-2, Goal-7</b>	<b>Description of Goal-7:</b> Medical specialist records urgent medical events & escalates		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations. -The medical specialist presses the "Incidents" tab. -display a simple form for entering event details (student name/ID, date, time, location, and short notes)	OP
	event-3	The Medical Specialist enters the urgent event details, such as symptoms, cause, or the immediate condition of the student.	UIE, UID
	event-4	The system saves the information to the file and creates a new Medical Incident Record, marked as "Urgent."	DP
	event-5	The system automatically flags the patient.	DP
<b>User-2, Goal-8</b>	<b>Description of Goal-8:</b> Medical specialists manage and record student vaccinations		
Workflow:	event-1	Login Process to be executed	See the login process

	event-2	<p>If the login process is successful, the Medical Specialist Dashboard appears with navigation tabs: Dashboard, Pre-flight Exams, Regular Patients, Suspensions, Reports, Renewals, Incidents, Vaccinations.</p> <ul style="list-style-type: none"> <li>-The medical specialist presses the "Vaccinations" tab.</li> <li>-show vaccination management panel (list of students and vaccine status)</li> </ul>	DP, OP
	event-3	<p>The medical specialist searches for a specific student from the list present to view/add vaccine records: vaccine name, date given, batch no., expiry</p>	UIE, UID
	event-4	<p>After the medical specialist enters information in event-3, the specialist presses the save button.</p>	UID
	event-5	<p>If information is present in event-3:</p> <ul style="list-style-type: none"> <li>-the system saves the info after the medical specialist presses the save button</li> </ul> <p>else:</p> <ul style="list-style-type: none"> <li>-show message "Information not filled properly"</li> </ul>	VL

User-3 name: Examination Officer			
User-3, Goal-1	Description of Goal-1: Exam officer creates & publishes exam slots		event type
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. The examiner presses the “Dashboard” tab.</p> <ul style="list-style-type: none"> <li>-create new exam event</li> <li>-select exam type (theory/practical)</li> <li>-set date and time</li> <li>-capacity</li> </ul>	UIE, UID
	event-3	<p>If all the information is entered in event-2:</p> <ul style="list-style-type: none"> <li>-verify whether any other examiner is hosting an exam on that date and time</li> </ul>	VR
	event-4	<p>If event-3 is successful:</p> <ul style="list-style-type: none"> <li>-publish exam slots</li> </ul> <p>else:</p> <ul style="list-style-type: none"> <li>-show message “Exam slot not available”</li> </ul>	DP, OP
	event-5	Display the list of published exams on the dashboard.	OP
User-3, Goal-2	Description of Goal-2: Examiner checks the student’s eligibility for the exam		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. The examiner presses the “Eligibility” tab.</p> <ul style="list-style-type: none"> <li>-the system verifies the student’s eligibility to give the exam, the system checks the completed hours, instructor endorsement, valid medical, and cleared fees</li> </ul>	VL
	event-3	The examiner manually checks the list of students who	UIE, UID

		applied. If the examiner sees a candidate not suitable for the applied exam, reject the student with a short reason in the remarks and press the "Update exam status" button.	
	event-4	If event-3 is successful: -Update registration status in the system and notify students automatically	OP, DP
<b>User-3, Goal-3</b>	<b>Description of Goal-3:</b> The Examiner conducts marking and stores the results of the students		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. -The examiner presses the "Marking" tab. -show a list of exams that were held recently	OP, DP
	event-3	The examiner selects the exam for mark input when the exam is selected, and a mark entry form box opens.	UIE
	event-4	The examiner enters the student's name to enter the mark, and a remarks option to add any comments. After all the data has been filled, the examiner presses the "Save" button, and the data is stored in the file.	UIE, UIE
	event-5	After all the marks have been entered, a list displays the marks for the students.	OP, DP
	event-6	The examiner can export the mark as a PDF form by pressing the PDF button.	UID
<b>User-3, Goal-4</b>	<b>Description of Goal-4:</b> The examiner generates certificates for the students who passed		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. -The examiner presses the "Certificates" tab. -Show a list of passed students with exam details	DP, OP

	event-3	The examiner filters the student list by exam	UIE
	event-4	The examiner selects all the passed students from the list to generate certificates.	UID, UIE
	event-5	The system validates if the student passed the desired exam and generates downloadable PDF certificates for the student.	VL, DP, OP
<b>User-3, Goal-5</b>	<b>Description of Goal-5:</b> The examiner processes new exams for re-sit requests		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. The examiner presses the “Re-sit Requests” tab. -open Re-sit Requests panel and show pending requests list: student, exam, reason	OP, DP
	event-3	Select a single or a batch of re-sit requests to review	UIE, UID
	event-4	The examiner verifies the reason.	OP,
	event-5	If the event-3 is successful: -The examiner adds the single student or a batch of students to the upcoming exam list. The examiner does this by selecting the students and pressing the “Enroll in exam” button, which opens a list of upcoming exams. The examiner selects an appropriate exam and presses the “Update” button. else: -The students who are rejected by the examiner select those students and press the “Reject” button -the system updates the student's application to “rejected.”	UID, UIE
	event-6	If the “Enroll in exam” button is pressed in event-5: -system check for validation, minimum flight hours for practical exam, and for theoretical exam, check for available seats left before enrolling the students in the exam list else: -show appropriate warning message	VL, OP, DP
<b>User-3,</b>	<b>Description of Goal-6:</b> Examiner reports exam misconduct		



<b>Goal-6</b>			
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. The examiner presses the “Misconduct” tab. -open the Misconduct Reports panel, which has a button to add a new report and shows a list of previous Misconduct Reports.	OP, DP
	event-3	The examiner clicks New Report and enters basic details: session ID, exam ID, student ID (s), and a brief description of misconduct.	UIE
	event-4	The system verifies whether all the fields have been filled properly.	VL
	event-5	If event-3 is successful: -system adds this record to the student profile and adds a warning strike to the student record, and saves the record	DP, OP
<b>User-3, Goal-7</b>	<b>Description of Goal-7:</b> Examiner creates seating plans for exams.		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. The examiner presses the “Seating Plan” tab. -the examiner selects the exam from the list to create a seating plan	UID, OP, DP
	event-3	The examiner chose the seating plan option: Random seat plan, Alphabetical seat plan, ID-wise seat plan.	UID
	event-4	After the examiner chooses an option from the list, the system generates a list of the seating plan, which includes the student ID, name, and seat number.	DP, OP
	event-5	The examiner may repeat process 4 if the desired seat plan is not met, or can press the Download seat plan	UID, DP, OP

		button to download a PDF copy.	
<b>User-3, Goal-8</b>	<b>Description of Goal-8:</b> Examiner creates questions		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Examination Officer Dashboard appears with navigation tabs: Dashboard, Eligibility, Marking, Certificates, Re-sit Requests, Misconduct, Seating Plan, and Question Bank. The examiner presses the “Question Bank” tab. -Open the Question Creation panel -Show controls: Add Question, save draft, and finalize & download PDF -shows a list of previously made questions	UID
	event-3	Click Add Question to create a new question entry.	UID
	event-4	Choose question type: Short answer, Brief/Paragraph, Multiple Choice, Checkbox.	UID
	event-5	Enter question text and required fields.	UIE,
	event-6	If the user presses “Save Draft”: -the questions made are saved in the file to edit later else if the user presses Finalize and download PDF: -the questions made are saved, and a PDF of the questions made is downloaded	UIE, UID
	event-7	The examiner may see the saved draft, finalized question from the “Exam paper” list, or download a previous paper from the download list.	UID

<b>User-4 name: Financial Officer</b>			
<b>User-4, Goal-1</b>	<b>Description of Goal-1:</b> Financial officer records student payments (cash/bank slip / manual entry)		event type
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments,	DP, OP

		Holds, Fees, Reports, Installments, Scholarships, Suppliers, and Refunds. The officer presses the "Payments" tab. -Show list of unpaid invoices and recent payments	
	event-3	Financial officer selects an invoice and enters payment details: invoice ID, amount, method, reference. After selecting the method, the financial officer enters the transaction ID.	UID
	event-4	The system verifies the amount.	VR
	event-5	If event-4 is successful: -mark invoice paid, generate receipt -update the student bill status to paid else: -show message "amount does not match."	DP, OP
<b>User-4, Goal-2</b>	<b>Description of Goal-2:</b> The Financial Officer places or removes a financial hold on the student account		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments, Holds, Fees, Reports, Installments, Scholarships, Suppliers, Refunds. The officer presses the "Holds" tab. -display flagged student ID's and their overdue invoices	OP, DP
	event-3	Select the student and choose Place Hold or Remove Hold	UIE, UID
	event-4	System checks the current invoice and hold status	VR
	event-5	If event-4 is successful: -update the student ID hold status else if the hold status entered already exists for the student ID: -show message "Hold status not changed" else: -show appropriate warning message	DP, OP
<b>User-4, Goal-3</b>	<b>Description of Goal-3:</b> The Financial Officer updates the fee structure and service prices		
Workflow:	event-1	Login Process to be executed	See the login

			process
	event-2	If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments, Holds, Fees, Reports, Installments, Scholarships, Suppliers, Refunds. The officer presses the "Fees" tab. -open the Fee Configuration panel showing the current rates in a list form	OP
	event-3	The financial officer edits the service or fee items and sets new prices and their effective dates	UIE, UID
	event-4	The system validates the changes to negative fees	VR
	event-5	If valid: -save the updated fee structure	DP, OP
<b>User-4, Goal-4</b>	<b>Description of Goal-4:</b> Generate a monthly financial statement		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments, Holds, Fees, Reports, Installments, Scholarships, Suppliers, and Refunds. The officer presses the "Reports" tab. -choose month and report type: fees collected, outstanding dues	UIE, UID
	event-3	Display summary and simple chart	OP, DP
	event-4	The financial officer presses the Export button to download the PDF	UID, DP
<b>User-4, Goal-5</b>	<b>Description of Goal-5:</b> The Financial Officer creates an Installment Plan for students		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments, Holds, Fees, Reports, Installments, Scholarships, Suppliers, and Refunds. The officer presses the "Installments" tab.	UID, OP, DP

		-select the student and create an Installment Plan from the list. The officer may search for a specific student from the list	
	event-3	The system verifies eligibility by assessing financial holds	VR
	event-4	If valid: -Save the installment schedule and generate payment plan invoices	DP
	event-5	The officer then downloads the specific instalment plan for the student	UID
<b>User-4, Goal-6</b>	<b>Description of Goal-6:</b> The financial officer applies scholarships to student IDs		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments, Holds, Fees, Reports, Installments, Scholarships, Suppliers, and Refunds. The officer presses the "Scholarships" tab. -open the Scholarships panel, which shows a list of students with their current grade -the officer may search for a specific student by name or ID	UID, OP, DP
	event-3	Select the student and enter scholarship details: type, amount, and duration	UIE, UID
	event-4	The system verifies eligibility by checking the grade of the student and checking if the student has any previous scholarship	VR
	event-5	If event-4 is successful: -apply the scholarship to the student's account and update the balance -show a confirmation message "Scholarship applied successfully" else: -show "Scholarship not applied"	DP, OP
<b>User-4, Goal-7</b>	<b>Description of Goal-7:</b> The financial officer pays the supplier and maintenance invoices or enters new supplier information		

Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments, Holds, Fees, Reports, Installments, Scholarships, Suppliers, Refunds.</p> <p>The officer presses the "Suppliers" tab.</p> <ul style="list-style-type: none"> <li>-show a list of unpaid supplier and maintenance invoices</li> <li>-an option is available to add a new supplier with basic details (supplier name, contact, account info)</li> </ul>	UID, OP, DP
	event-3	<p>If a new supplier is added:</p> <ul style="list-style-type: none"> <li>-system saves supplier info to the file and updates the supplier list</li> </ul>	DP
	event-4	The officer selects the supplier invoice to pay and enters payment details	UIE, UID
	event-5	System verifies the payment details with the existing slip and the existing fund	VR
	event-6	<p>If valid:</p> <ul style="list-style-type: none"> <li>-mark the invoice as paid</li> <li>-generate a payment receipt for record</li> </ul>	DP, OP
	event-7	The officer downloads or prints the payment receipt for documentation	UID, OP
<b>User-4, Goal-8</b>	<b>Description of Goal-8:</b> The Financial Officer issues refunds for cancelled training sessions		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	<p>If the login is successful, the Financial Officer Dashboard appears with navigation tabs: Payments, Holds, Fees, Reports, Installments, Scholarships, Suppliers, Refunds.</p> <p>The officer presses the "Refunds" tab.</p> <ul style="list-style-type: none"> <li>-show a list of cancelled training sessions and affected students</li> <li>-option to search for a specific student from the list</li> </ul>	UID, OP, DP
	event-3	Select the student and enter refund details: refund method (bank or cash) and refund amount	UIE, UID

	event-4	The system verifies the refund amount with the actual training session amount	VR
	event-5	If event-4 is successful: -message shows "Refund is successful" else: -show message "refund amount does not match"	DP, OP

## User-5 name: **Flight Instructor**

User-5, Goal-1	Description of Goal-1: <b>Flight Instructor Approves Flight requests.</b>		event type
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the Login was successful, go to the Flight Instructor dashboard and click a button to: -Show pending flight requests.	OP
	event-3	The Flight Instructor selects a flight request.	UID
	event-4	System validates -instructor license -duty hours	VR
	event-5	-Update the schedule -Display updated schedule.	DP/OP
User-5, Goal-2	Description of Goal-2: <b>Uploading lesson plan file &amp; materials.</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the Login was successful, go to the Flight Instructor dashboard and click a button to: -Open selected sessions.	UIE
	event-3	The flight instructor enters data into the lesson plan, which includes -Flight plan -Lesson type -Training/Class time -Requirements	UID
	event-4	The system will validate the text file.	VL

	event-5	Attach a text file to the session record.	DP
	event-6	Confirm upload and show message -Lesson Plan has been updated	DP/OP
<b>User-5, Goal-3</b>	<b>Description of Goal-3:</b> Conduct a session and record the evaluation		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login was successful, go to the Flight Instructor dashboard and click the specific button to proceed to the evaluation section	UIE
	event-3	The system will validate -Session presence -Session completion	VL
	event-4	The flight instructor fills up an evaluation form, which will include -Ratings -Comments -Recommendation	UIE/UID
	event-5	The system will update -evaluations -progress	DP
	event-6	The system will display -Session summary -Recommended steps	OP
<b>User-5, Goal-4</b>	<b>Description of Goal-4:</b> Recommend student for exam (endorsement)		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login was successful, go to the Flight Instructor dashboard and click the specific button to show the student's progress	UIE
	event-3	System checks students' -Flight hours -Evaluation History	VL
	event-4	Flight Instructor marks endorsement for examination and leaves a short note.	UIE



	event-5	System Updates -Student eligibility for Examination Officer.	DP
	event-6	The system shows a message -The student is eligible for the examination. else: -The student is not eligible for the examination.	OP
<b>User-5, Goal-5</b>	Description of Goal-5: <b>Report a defect in the aircraft or the simulator</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login was successful, go to the Flight Instructor dashboard and click the specific button to report any issues regarding the aircraft or the simulator	UIE
	event-3	Flight Instructor Selects -Flight Session or -Asset with defect	UID
	event-4	Flight Instructor enters defect details -Aircraft Description -Flight Time -Flight location	UIE, UID
	event-5	System will -record the defect -notifies the maintenance engineer	DP
	event-6	The system will show a confirmation message -"Defect Report Sent"	OP
<b>User-5, Goal-6</b>	Description of Goal-6: <b>View daily schedule and student details</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login was successful, go to the Flight Instructor dashboard and click the specific button to access -Daily schedule -Student details	UIE
	event-3	The system will fetch the instructor's daily schedule	DP
	event-4	System will display	OP

		-Schedule with session time -Student names -Aircraft ID	
	event-5	click a button to view student's -Flight hours -Examination Scores -Evaluation	UIE/OP
<b>User-5, Goal-7</b>	<b>Description of Goal-7: Flight Instructor to access student progress</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login was successful, go to the Flight Instructor dashboard and click on a button to -Access the progress of a student	UIE
	event-3	The Flight Instructor selects a student from the assigned list	UID
	event-4	The system will retrieve -Selected student's performance data	DP
	event-n	The system will display -Student progress	OP
<b>User-5, Goal-8</b>	<b>Description of Goal-8: Flight Instructor requests leave application</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If the login was successful, go to the Flight Instructor dashboard and click on a button to -Request Leave Application	UIE
	event-3	The leave application interface appears with fields: -name -ID -Reason -Leave date	UIE/UID
	event-4	The system will validate all required fields	VL
	event-5	The system will save the leave request and mark the instructor unavailable during leave	DP

	event-6	System will display message -“Leave Request Submitted for Approval”	OP
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User-6 name: <b>Air Traffic Controller(ATC)</b>			
User-6, Goal-1	Description of Goal-1: <b>ATC provides simulated flight clearances for training sessions.</b>		event type
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If Login was successful, go to the ATC dashboard and click a button to: -Show list of active or scheduled training sessions.	UIE
	event-3	ATC selects a session to monitor.	UID
	event-3	System displays: -Flight Instructor name -Student pilot name -Aircraft ID -Current flight status (Ready / Taxi / Airborne)	OP
	event-4	ATC enters clearance messages such as: -Taxi clearance -Take-off clearance -Climb/descend instructions	UIE/UID
	event-5	System displays confirmation message: -"Clearance Sent Successfully."	OP
User-6, Goal-2	Description of Goal-2: <b>ATC records and saves ATC transcript for each session.</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If Login was successful, go to the ATC dashboard and click a button to: -Open completed session transcript.	UIE
	event-3	System verifies that: -Session has ended -All messages have timestamps	VL
	event-4	The system stores the transcript file linked with session ID.	DP
	event-5	System displays message: -"Transcript Saved Successfully."	OP

<b>User-6, Goal-3</b>	<b>Description of Goal-3: ATC simulates weather or traffic conditions during sessions.</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If Login was successful, go to the ATC dashboard and click a button to: -Add Weather Scenario.	UIE
	event-3	ATC selects scenario type: -Weather -Traffic	UID
	event-4	System applies the scenario to the session.	DP
	event-n	System displays message: -"Scenario Applied Successfully."	OP
<b>User-6, Goal-4</b>	<b>Description of Goal-4: ATC monitors flight and reports any abnormal activity or safety issues.</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If Login was successful, go to the ATC dashboard and click a button to: -View Live Flight Tracking.	UIE
	event-3	System displays: -Aircraft position -Altitude -Speed -Route path	OP
	event-4	If abnormal behavior is detected (e.g., deviation, unsafe altitude): -ATC fills in incident details: description, time, severity.	UIE/UID
	event-5	System records the report and notifies the Safety Officer.	DP
	event-6	System displays confirmation message: -"Incident Report Sent."	OP
<b>User-6, Goal-5</b>	<b>Description of Goal-5: ATC approves take-off and landing requests for simulated sessions.</b>		

Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If Login was successful, go to the ATC dashboard and click a button to: -View pending take-off/landing requests.	UIE
	event-3	ATC reviews session details: -Instructor name -Aircraft type -Runway availability -Weather condition	UID
	event-4	System validates readiness and clearance rules.	VL
	event-5	If all checks are valid: -ATC clicks "Approve Take-off" or "Approve Landing." else: -ATC clicks "Abort Take-off" or "Abort Landing."	UIE
	event-6	System updates the flight record.	VP
	event-7	System displays confirmation: -"Clearance Approved."	OP
<b>User-6, Goal-6</b>	<b>Description of Goal-6: ATC reviews daily schedule and flight session list.</b>		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If Login was successful, go to the ATC dashboard and click a button to: -Show Today's Flight Schedule.	UIE
	event-3	System retrieves scheduled sessions including: -Session ID -Instructor name -Student pilot name -Aircraft number	DP
	event-4	System displays table format schedule with statuses (Pending / Ongoing / Completed).	OP
<b>User-6, Goal-7</b>	<b>Description of Goal-7: ATC access ATC communication logs for record keeping.</b>		
Workflow:	event-1	Login Process to be executed	See the login process

	event-2	If Login was successful, go to the ATC dashboard and click on a button to: -Select date range for logs.	UIE
	event-3	System retrieves communication data and session transcripts.	DP
	event-4	System generates a combined log report.	DP
	event-5	System displays message: -"Log Report is Ready."	OP
<b>User-6, Goal-8</b>	Description of Goal-8: ATC generates daily traffic summary chart for academy review.		
Workflow:	event-1	Login Process to be executed	See the login process
	event-2	If Login was successful, go to the ATC dashboard and click a button to: -Generate Daily Summary.	UIE
	event-3	System aggregates data: -Total flights handled -Number of incidents -Average clearance time	DP
	event-4	System displays: -Text summary	OP
	event-5	System confirms message: -"Summary Report is ready."	OP.

<b>User-7 name: Maintenance Engineer</b>			
<b>User-7, Goal-1</b>	<b>Description of Goal-1: Log a defect on an aircraft</b>		event type
Workflow:	event-1	Log in to the maintenance portal.	<b>VL</b>
	event-2	Select the correct aircraft asset, input a detailed defect description, choose a defect severity level, and upload supporting photos.	<b>UIE</b>
	event-3	Create a new defect report ticket with status = "New", link it to the aircraft's unique asset ID and recent flight log, and timestamp the entry for traceability.	<b>DP</b>
	event-4	Generate a unique ticket ID upon submission and automatically notify the assigned maintenance supervisor via system alert/email.	<b>OP</b>
	event-5	Select appropriate severity level and category from predefined dropdowns, and reattach the image if system validation flags an incomplete entry.	<b>UID</b>
<b>User-7, Goal-2</b>	<b>Description of Goal-2: Ground the asset immediately due to a critical defect compromising safety."</b>		
Workflow:	event-1	User selects the open defect ticket with severity = Critical and clicks the "Ground Asset" button on the maintenance portal interface.	<b>UIE</b>
	event-2	<p>The system performs a real-time check to determine if the asset is currently:</p> <p>Scheduled for flight/training</p> <p>In use, or</p> <p>Idle/available.</p>	<b>VR</b>



	event-3	<p><b>If:</b> the asset is scheduled for a future session or is currently in use:</p> <p>Update <code>asset.status</code> = Grounded, Automatically cancel all upcoming bookings, Flag sessions with "Maintenance Hold" status, Trigger real-time alerts to instructors and scheduler.</p> <p><b>Else:</b></p> <p>Update <code>asset.status</code> = Grounded, Set asset availability to "<b>Unavailable – Critical Defect</b>", Log the grounding reason with defect ticket ID reference.</p>	DP
	event-4	<p>System records the grounding action in the <b>audit log</b>, including:</p> <p>Timestamp, User ID, Asset ID, Linked defect ticket number, System decision path</p>	DP
	event-5	Notify Scheduling and Instructor through email, asset ID, option sms(if enable)	OP
User-7, Goal-3	<b>Description of Goal-Schedule a maintenance window</b>		
Workflow:	event-1	The maintenance planner logs into the system and selects the specific asset (e.g., aircraft tail number or simulator ID) that requires service. then one or more open defect tickets (preferably with severity = <i>Major</i> or <i>Critical</i> ) to the proposed maintenance task.	UIE
	event-2	Enter date and Time duration and Assigned maintenance staff or technician group for the work.	UID
	event-3	The system checks the <b>training or flight schedule</b> for the selected asset:	VR

		<p><b>If</b> the proposed window overlaps with booked sessions:  Display conflict warning with session IDs and users involved . Allow users to reschedule or send notification to coordinator for override.</p> <p><b>Else</b> (no conflicts):  Proceed to job order creation.</p> <p>This ensures the asset is not pulled from use unexpectedly.</p>	
	event-4	<p>A Job Order is generated with a unique ID (e.g., JO-7845).  The system marks the selected time as "Maintenance Reserved" on the scheduling calendar</p>	<b>DP</b>
	event-5	Send schedule confirmation to the maintenance team.	<b>OP</b>
<b>User-7, Goal-4</b>	<b>Description of Goal-4: Complete a maintenance task</b>		
Workflow:	event-1	<p>The maintenance technician securely logs into the maintenance portal.  They navigate to their assigned job orders and open the specific Job Order ID (e.g., JO-7845) that has been scheduled for their task.</p>	<b>VL</b>
	event-2	The technician records a detailed, step-by-step log of all maintenance actions taken, including inspections, repairs, or replacements performed.	<b>UIE</b>
	event-3	<p>The technician selects from a predefined list of tools and parts used during the task (e.g., part numbers, tool IDs).</p> <p>They input hours worked with start and end times or total elapsed time</p> <p>The system checks for parts inventory levels and flags if restocking is needed.</p>	<b>UID</b>

	event-4	<p>Upon finishing the work, the technician changes the job order status to "Completed" in the CMMS.</p> <p>This triggers a timestamped log entry and locks further edits to the work performed.</p> <p>The job order is then queued for inspection.</p>	DP
	event-5	Submit for inspection and show completion summary.	OP
User-7, Goal-5	Description of Goal-5: <b>Request quality inspection.</b>		
Workflow:	event-1	<p>The technician or maintenance staff opens the completed job order in the CMMS or maintenance portal and clicks the "Request Inspection" button.</p> <p>This action is only available when the job status is marked as Completed. The system prompts for optional inspection notes or special instructions.</p>	UIE
	event-2	<p>System creates inspection task linked to job order</p> <p>The inspection task includes:</p> <p>Job Order ID,</p> <p>Asset details,Defect ticket references,Work summary from the completed job.</p> <p>The system timestamps the creation of the inspection task.</p>	DP
	event-3	<p><b>Auto-assigns an inspector</b> based on role, availability, and workload (e.g., certified quality engineer assigned to that asset type),</p> <p>Or prompts the user to manually assign an inspector from a pre-approved list.</p> <p>Assignment triggers workload updates in the inspector's dashboard.</p>	UID
	event-4	The job order status changes from <b>Completed</b> to	DP

		<p><b>Awaiting Inspection.</b></p> <p>This status locks the job from further edits by the technician to preserve work integrity. A record of the status update with timestamp and user ID is saved in the audit log.</p>	
	event-5	Notify inspector and maintenance supervisor.	OP
User-7, Goal-6	Description of Goal-6: <b>Close maintenance ticket after inspection</b>		
Workflow:	event-1	<p>The assigned inspector logs into the maintenance system and accesses the inspection task to the job order.</p> <p>The inspector records detailed inspection findings, including any observations or deviations. They formally <b>approve or reject</b> the maintenance work based on compliance and quality standards. If approved, an electronic signature or authentication confirms the inspection completion.</p>	UIE
	event-2	<p>Following inspector approval, the system updates the linked defect ticket status from Open/Under Repair to Closed.</p> <p>The closure includes a timestamp and inspector's ID.</p> <p>Any final remarks or notes from the inspection are appended to the ticket history for traceability.</p>	DP
	event-3	<p>The system updates the asset's operational status from <b>Grounded/Maintenance</b> to <b>Available</b>.</p> <p>This change makes the asset visible and bookable in scheduling and operations systems.</p>	DP

		Availability update is logged with timestamp and user ID for audit purposes.	
	event-4	<p>The completed job order, along with inspection reports and defect tickets, is archived in the system.</p> <p>All records are combined to the asset's <b>maintenance history</b>, enabling future reference and trend analysis</p> <p>Archived data remain accessible for audits, regulatory compliance, and performance reviews.</p>	<b>DP</b>
	event-5	Notify scheduling and fleet ops.	<b>OP</b>
<b>User-7, Goal-7</b>	<b>Description of Goal-7: Generate maintenance report</b>		
Workflow:	event-1	<p>The user opens the reporting module and specifies:</p> <p>The <b>date range</b> for the report. The <b>asset type</b> or category. The system validates input and confirms availability of data for the selected parameters.</p>	<b>UID</b>
	event-2	<p>All job orders completed within the date range for the selected asset type,</p> <p>Linked defect tickets including severity and resolution status,</p> <p>Recorded downtime hours and causes.</p> <p>Data is aggregated and cross-referenced to ensure completeness.</p>	<b>DP</b>
	event-3	<p>Job orders or defect tickets missing key fields(e.g., completion status, defect descriptions),</p> <p>Records without proper timestamps or technician remarks,</p> <p>Discrepancies between downtime logs and job order durations.</p> <p>Generate a validation report highlighting records requiring attention or correction before finalizing the</p>	<b>VR</b>

		report.	
	event-4	<p>A formatted PDF report featuring charts, tables, and key performance indicators (KPIs) like mean time to repair (MTTR), defect frequency, and asset availability</p> <p>An interactive summary dashboard for quick visualization and drill-down by asset or date.</p>	DP
	event-5	Send a report to the manager and QA team.	OP
User-7, Goal-8	Description of Goal-8: <b>Identify high-risk assets or recurring issues</b>		
Workflow:	event-1	<p>Run an automated report or query on the maintenance database to extract all defect tickets and downtime records linked to each asset for the <b>last 90 days</b>.</p> <p>Metrics include number of defects, total downtime hours, defect types, and severity levels.</p> <p>Use filters to focus on critical and recurring issues.</p>	DP
	event-2	<p>From the analysis results, flag assets that meet one or both of these criteria:</p> <p>Repeated defects: Assets with the same defect or failure mode reported 3 or more times within 90 days.</p> <p>Downtime threshold: Assets with more than 10 total hours of downtime logged during this period.</p> <p>Generate a list of candidate high-risk assets for review.</p>	VR
	event-3	For each identified asset, update its profile in the asset management system by tagging it with a "High-Risk" label.	DP

		Log a detailed reason in the asset record, e.g., "Repeated hydraulic pump failures (4 incidents) and 12 hours downtime in the last 90 days.	
	event-4	<p>Ensure the High-Risk status is clearly visible in the asset's profile dashboard for maintenance planners and technicians.</p> <p>Also add a visual flag or warning on the defect creation form when selecting or scanning this asset, alerting users of the high-risk status.</p> <p>This encourages heightened scrutiny during inspections and faster escalation.</p>	<b>DP</b>
	event-5	Notify engineering lead for review and action.	<b>OP</b>

User-8 name: <b>Safety Officer</b>			
User-8, Goal-1	Description of Goal-1: <b>Conduct daily safety inspection</b>		event type
Workflow:	event-1	<p>The safety officer or assigned personnel logs into the digital Safety Dashboard using secure credentials.</p> <p>The system displays scheduled inspection tasks for the day. The user selects the area or facility they're assigned to inspect (e.g., Hangar Bay 2, Sim Room A).</p>	<b>VL</b>
	event-2	<p>From the dashboard, the user selects the appropriate checklist type based on the location or activity:</p> <p>Options may include:</p> <p>Hangar Safety Checklist</p> <p>Simulator Bay Checklist</p> <p>Fueling Area Checklist</p> <p>General Facility Safety Checklist</p> <p>The checklist auto-populates with safety items specific to the selected area (e.g., trip hazards, fire extinguisher status, PPE availability).</p>	<b>UIE</b>
	event-3	<p>The user walks through each checklist item, entering:</p> <p>Pass/Fail or condition status (e.g., "Extinguisher pressure low", "Oil spill near e</p> <p>Comments or recommendations,</p> <p>Photos taken via tablet or mobile device for visual documentation of any issues.</p> <p>If a critical issue is identified, the system prompts for severity tagging and immediate escalation.</p>	<b>UIE</b>



	event-4	<p>Once the checklist is completed:</p> <p>The user submits the form, which is automatically logged into the inspection history for the selected area,</p> <p>The system timestamps the entry, links it to the inspector's ID, and stores the report in a centralized archive.</p> <p>If any items failed, the system auto-generates a corrective action task and routes it to the responsible maintenance or safety team.</p>	DP
	event-5	Generate safety status summary and notify Ops.	OP
<b>User-8, Goal-2</b>	<b>Description of Goal-2:Review pre-flight safety check submissions</b>		
Workflow:	event-1	<p>The Safety Officer or Maintenance Supervisor logs into the Flight Operations Portal or Maintenance Dashboard.</p> <p>Navigates to the "Pre-Flight Submissions" section.Filters submissions by aircraft tail number, date, or instructor name.Views a list of all pre-flight checks submitted for the day or upcoming scheduled flights.</p>	VL
	event-2	<p>The reviewer opens each submission and examines the completed digital pre-flight checklist, which includes checks such as:</p> <p>Fuel levels, Tire pressureOil quantityExterior damage,Emergency equipment,Control surface freedom.</p> <p>Instructor comments and attached images (if any) are reviewed for context or observations</p>	UIE
	event-3	<b>Validate That All Safety Items Are Marked "OK"</b>	VR

		<p><b>IF all required checklist items are marked as "OK":</b></p> <p>System marks the checklist as "<b>Passed</b>".Proceeds to the approval stage (Event-4).Reviewer receives a green indicator that the aircraft is safe for release.</p> <p><b>ELSE one or more checklist items are marked as "Not OK":</b></p> <p>The system <b>highlights the failed items</b> in red.</p> <p>Triggers a prompt to the reviewer to:</p> <p>View attached photos (if any),</p> <p>Read instructor comments,</p> <p>Decide whether to <b>flag for recheck</b> or <b>create a defect ticket</b>.</p> <p>The checklist is held in a "<b>Needs Review</b>" state until manually approved or flagged.</p>	
	event-4	<p>Approve or Flag Submission for Recheck</p> <p>Based on the review outcome :</p> <p>If all items are OK and complete: Click "Approve" to clear the aircraft for operation. The system logs the approval with a timestamp and reviewer ID.</p> <p>If issues are found: Click "Flag for Recheck", Add reviewer comments (e.g., "Oil low – confirm top-up before dispatch"), The system sends a notification to the instructor or maintenance team to reinspect or resolve.</p>	DP
	event-5	Update aircraft status and notify parties.	OP
User-8, Goal-3	Description of Goal-3: <b>Log a safety incident</b>		

Workflow:	event-1	Open incident reporting form.The user (e.g., staff member or operator) initiates the process by navigating to the digital incident reporting system and opening the "New Incident Report" form via the dashboard or quick access panel.	UIE
	event-2	Enter location, time, parties involved, and type.The user fills in mandatory fields, including:  Location of the incident  Time and date of occurrence  Individuals or teams involved (names, roles)  Type of incident (e.g., safety, equipment failure, human error)	UID
	event-3	The system creates incident case ID.Upon submission of the initial form, the system auto-generates a unique Incident Case ID for tracking and reference. This ID is used throughout subsequent workflows and notifications	DP
	event-4	Link to any related maintenance or session data.The system cross-references internal databases to automatically associate the incident with any relevant:  Maintenance logs (e.g., recent repairs or inspections)  Training session records (e.g., who was trained, when, and on what procedures)	DP
	event-5	Notify the safety lead and training manager.	OP
User-8, Goal-4	<b>Description of Goal-4: Investigate incident and perform RCA</b>		
Workflow:	event-1	Open the incident case and start Root Cause Analysis.An assigned investigator (e.g., Safety Lead or Incident Manager) accesses the incident record using the <b>Incident Case ID</b> . From the case dashboard, they click “ <b>Initiate Root Cause Analysis</b> ”, which activates a structured RCA module that guides the process step-by-step.	UIE

	event-2	Log findings from interviews, logs, and observations. The investigator gathers and enters detailed findings using structured data entry sections like interview, system logs	<b>UIE</b>
	event-3	Choose root cause category (e.g., human error, mechanical). Once evidence is reviewed, the system presents a list of <b>Root Cause Categories</b> based on incident type and collected data. The investigator selects one or more <b>root cause(s)</b> from a structured taxonomy.	<b>UID</b>
	event-4	The system suggests corrective/preventive actions.	<b>DP</b>
	event-5	Save the final report and send it to management.	<b>OP</b>
<b>User-8, Goal-5</b>	<b>Description of Goal-5: Issue safety bulletin</b>		
Workflow:	event-1	<p>Create a new bulletin and select a topic (e.g., recent incident). Enter <b>bulletin title</b> (e.g., "Forklift Near-Miss – Lessons Learned")</p> <p>Select <b>bulletin category/topic</b> from a dropdown (e.g., Recent Incident, Safety Tip, Policy Update)</p> <p>Assign <b>urgency/priority level</b> (e.g., High – Immediate Attention, Informational)</p>	<b>UIE</b>
	event-2	<p>Pull data from completed investigation or checklist. Link the bulletin to a specific <b>Incident Case ID</b> or <b>Checklist ID</b>.</p> <p>Root cause summary Corrective actions Photos or diagrams Learning points</p> <p>Option to redact confidential or identifying information before publishing</p> <p><b>System Support:</b></p> <p>Searchable list of past incidents/checklists Auto-fill or drag-and-drop relevant content into bulletin template</p>	<b>DP</b>
	event-3	Select recipients (students, instructors, all staff). Manual selection (individuals or roles)	<b>UID</b>

		<p>Role-based targeting (e.g., "All Forklift Operators", "Warehouse Team")Group-based targeting (e.g., "Students in October Training Cohort")</p> <p><b>Advanced Filtering:</b></p> <p>Filter by department, role, shift, or training historySave recipient groups for future bulletins</p>	
	event-4	Format and publish bulletin to platform.	<b>DP</b>
	event-5	Track read acknowledgments and send reminders.	<b>OP</b>
<b>User-8, Goal-6</b>	<b>Description of Goal-6: Perform emergency equipment and PPE check</b>		
Workflow:	event-1	Start inspection of first-aid kits, extinguishers, and PPE.	<b>UIE</b>
	event-2	<p>Log condition, expiry, or replacement needed.For flagged items:</p> <p>Add a photo upload (e.g., damaged extinguisher or missing first-aid supplies)</p> <p>Option to enter notes or specific parts that require replacement</p> <p>System Features:</p> <p>Auto-highlight overdue or failed checks in red</p> <p>Validation that all required fields are completed before submission</p>	<b>UID</b>
	event-3	<p>Validate checklist completion.Once the form is submitted:</p> <p>The system automatically verifies all required items have been inspected</p> <p>Cross-checks mandatory fields (e.g., expiry dates entered for all first-aid items)</p> <p>Displays a completion confirmation message or</p>	<b>VR</b>

		<p>prompts user to finish incomplete sections</p> <p>Audit Trail:</p> <p>Logs completion timestamp</p> <p>Creates inspection report linked to location, inspector, and checklist version</p>	
	event-4	<p>Trigger part replacement order if required.If an item is marked as “Damaged,” “Expired,” or “Missing,” A replacement request is automatically created and sent to Inventory or Maintenance.</p> <p>Item details, issue description, and photos (if any) are included.</p> <p>Critical items also trigger an alert to the Safety Manager and are flagged as High Priority.</p> <p>Else if the item is marked “Good,” No action is taken; the item is logged as Passed.</p> <p>This ensures prompt replacement of faulty items and tracks issues for safety compliance.</p>	<b>DP</b>
	event-5	Send a report to the inventory and safety admin.	<b>OP</b>
<b>User-8, Goal-7</b>	<b>Description of Goal-7: Update personnel safety training compliance</b>		
Workflow:	event-1	<p>Search staff by role or department.The training admin logs into the system and filters staff by role (e.g., Machine Operator) or department (e.g., Maintenance). The system displays each employee’s training status (e.g., Completed, Overdue, Not Assigned).</p>	<b>UID</b>
	event-2	<p>Assign Training Modules to Overdue or Untrained Staff</p> <p>The admin selects staff with overdue or missing training and assigns relevant modules (e.g., “PPE Use,” “Fire Safety”).</p> <p>The system checks for prerequisites and prevents duplicate assignments.</p>	<b>DP</b>
	event-3	Assign training modules for overdue personnel.The system sends automated reminders:	<b>UIE</b>

		3 days before due. On the due date, Escalation to supervisor if overdue	
	event-4	Set deadlines and reminders. Users receive a notification via email and LMS dashboard with:  Training title  Due date  Direct access link Instructions or expectations may be included.	DP
	event-5	Notify users and track completion status.	OP
<b>User-8, Goal-8</b>	Description of Goal-8: Conduct monthly safety audit		
Workflow:	event-1	Select audit checklist and date range. The auditor logs into the system, selects a predefined audit checklist (e.g., Safety Compliance), and sets the date range (e.g., last 90 days) for review.	UID
	event-2	Pull data from inspections, incidents, and training. The system auto-loads relevant data from past inspections, incident reports, and training records to populate the audit checklist.	DP
	event-3	Add audit comments and compliance scores. The auditor reviews each section, assigns compliance scores, and adds comments or evidence (photos, notes) where issues or gaps are found.	UIE
	event-4	Generate audit reports with findings and action items. A full report is generated, summarizing:  Key finding  Compliance ratings  Corrective actions with assigned owners and deadlines	DP