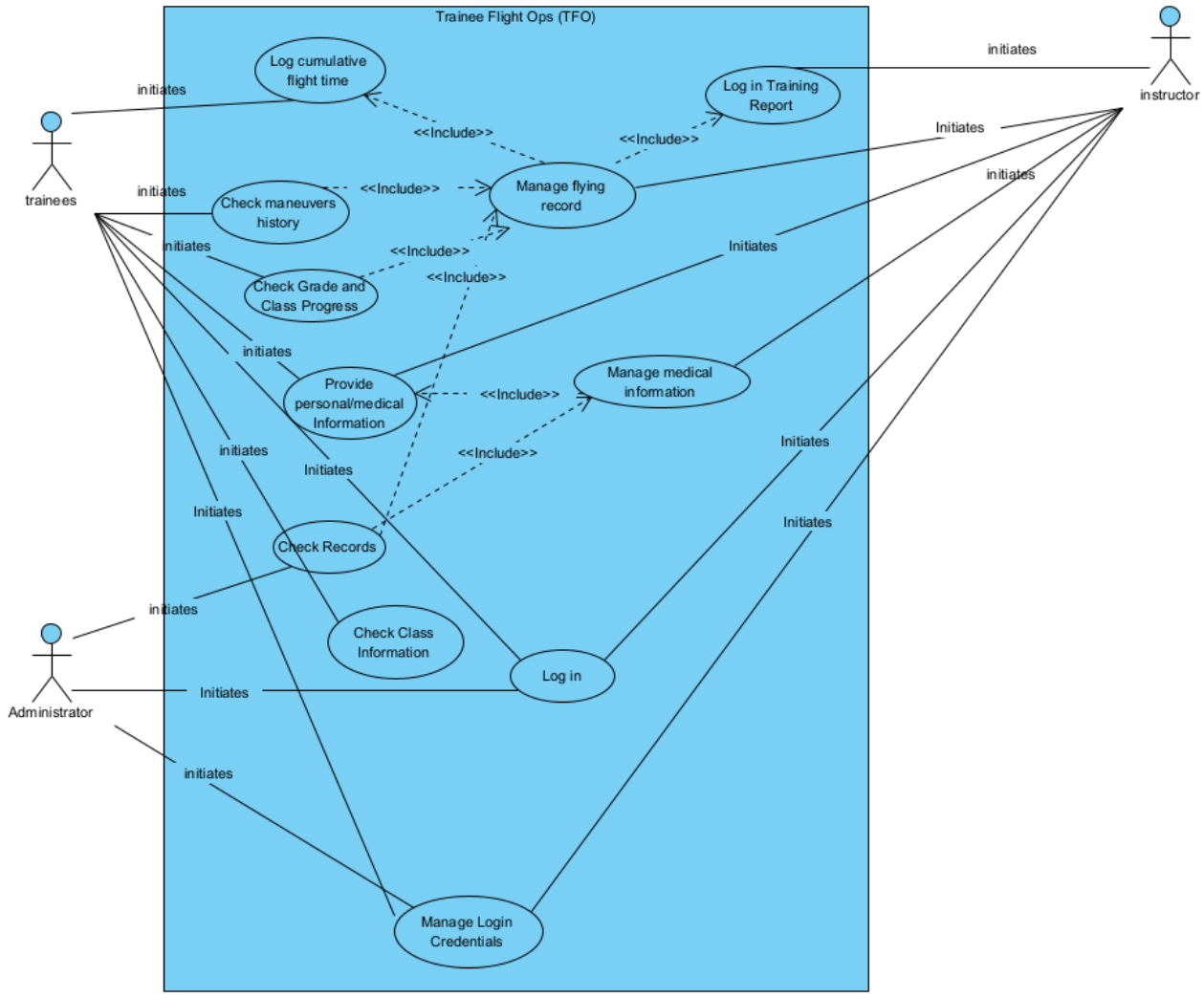
CNIT 182
Lab 3: Use Cases Diagrams & Use Case Narratives



Trainee Flight Ops TFO

Author: Team #8 **Date:** 09/30/2022

Use-Case Name:	Manage flying record	**Use Case Type** **Business Requirements:** ☐ **System Analysis:** ☐ **System Design:** ☑
Use-Case ID:	1	
Priority:	Medium	
Source:	TFO Project Case	

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Primary Business Actor:	Instructor	
Primary System Actor:	Trainee Flight Ops	
Other Participating Actors:	Trainee	
Other Interested Stockholders:	Administrator	
Description:	Allows users to access data pertaining to flight times and training reports	
Precondition:	The user is logged into the TFO system.	
Trigger:	System user requests flying record data from system	
Typical Course Of Events:	**Actor Action**	**System Response**
	Step 1: User selects flying record data from user interface.	Step 2: System checks if user is a trainee or instructor. Step 3: If user is an instructor, the system returns the training reports for the instructor's trainees. Step 4: If user is a trainee, prompts the user if they want to access/log cumulative flight time, check maneuver history, or check grade and class progress.
	Step 5: User selects which information they want access to.	Step 6: System displays appropriate information based on prior user selection.
Alternate Courses:	None	
Conclusion:	The use case concludes when the system displays the requested information to the user.	
Postcondition:	None	
Business Rules:	Trainees can only access information regarding their own training. Instructors can only access/create training reports for their own trainees.	
Implementation Constraints and Specifications:	All data should be available to be managed by administrators.	
Assumptions:	All actors have access to the system and possess login credentials for their own accounts.	
Open Issues:	None	

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Author: Team #8 **Date: 09/30/2022**

Use-Case Name:	Check maneuvers history	**Use Case Type** **Business Requirements:** ☐ **System Analysis:** ☐ **System Design:** ☑
Use-Case ID:	2	
Priority:	Medium	
Source:	TFO Project Case	
Primary Business Actor:	trainee	
Primary System Actor:	Trainee Flight Ops	
Other Participating Actors:	Instructor	
Other Interested Stockholders:	None	

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Description:	Allows trainees to view the maneuvers that they have completed.	
Precondition:	Trainees have logged into TFO system.	
Trigger:	trainee selects check maneuvers history from the user interface.	
Typical Course Of Events:	**Actor Action**	**System Response**
	Step 1: trainee selects check maneuvers history from the user interface.	Step 2: System provides a list of maneuvers that the trainee has completed.
	Step 3. trainee selects a maneuver from the list.	Step 4: System provides grades and notes associated with the selected maneuver.
Alternate Courses:	none	
Conclusion:	The use case concludes when the system provides the trainee with the grades and notes associated with the maneuver they completed.	
Postcondition:	none	
Business Rules:	Trainees may not view other the maneuver history of other trainees.	
Implementation Constraints and Specifications:	None	
Assumptions:	None	
Open Issues:	none	

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Author: Team #8 **Date: 09/30/2022**

Use-Case Name:	Log cumulative flight time	**Use Case Type**
Use-Case ID:	3	**Business Requirements:** ☐
Priority:	Medium	**System Analysis:** ☐
Source:	TFO Project Case	**System Design:** ☑
Primary Business Actor:	Flight trainees	
Primary System Actor:	Trainee Flight Ops	
Other Participating Actors:	None	
Other Interested Stockholders:	Instructors	
Description:	Allows trainees to log their flight time and adds it to their previous cumulative time	
Precondition:	Trainee is logged into the TFO system	
Trigger:	When trainee completes some flying time and needs to log their time	
Typical Course Of Events:	**Actor Action**	**System Response**
	Step 1: Trainee selects “log flight time” from user interface	Step 2: System prompts user to enter the number of flying hours to log
	Step 3: Trainee enters the number of flying hours that they wish to log	Step 4: System saves the entry and adds the entered number with the previous amount of cumulative flight hours of the trainee
		Step 5: System informs user that the hours have been logged and presents the new total cumulative hours

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Alternate Courses:	None	
Conclusion:	The use case ends when the flight hours have been correctly logged.	
Postcondition:	User's cumulative flight hours have increased.	
Business Rules:	None	
Implementation Constraints and Specifications:	None	
Assumptions:	Assumes trainees are logging the correct amount of hours and may receive disciplinary action if they try to log hours they did not do.	
Open Issues:	None	

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Author: Team #8 **Date:** 09/30/2022

Use-Case Name:	Manage medical information	**Use Case Type**	
Use-Case ID:	4	**Business Requirements:**	☐
Priority:	Medium	**System Analysis:**	☐
Source:	TFO Project Case	**System Design:**	☑
Primary Business Actor:	Flight trainees, Instructors, Administrators		
Primary System Actor:	Trainee Flight Ops		
Other Participating Actors:	None		
Other Interested Stockholders:	None		
Description:	Allows users to read and edit personal medical information		
Precondition:	The user is logged into the TFO system.		
Trigger:	User requests medical data from system		
Typical Course Of Events:	**Actor Action**	**System Response**	
	Step 1: User selects manage medical information in user interface.	Step 2: Checks if user is a trainee, instructor, or administrator.	
		Step 3: If the user is a trainee or instructor, display personal and medical information	
Alternate Courses:	Step 3b: If the user is an administrator, they receive access to view medical records for any trainee or instructor. Step 3c: If the user is a trainee or instructor and has not already entered medical information, prompt for initial entry of personal/medical information.		
Conclusion:	The user is presented with relevant medical and personal information.		
Postcondition:	None		
Business Rules:	Users are only allowed to view their own medical data and data administration follows FERPA guidelines.		
Implementation Constraints and Specifications:	None		
Assumptions:	None		
Open Issues:	None		

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Author: Team #8 **Date:** 09/30/2022

Use-Case Name:	Check grades and class progress	**Use Case Type**	
Use-Case ID:	5	**Business Requirements:**	☐
Priority:	Medium	**System Analysis:**	☐
Source:	TFO Project Case	**System Design:**	☑
Primary Business Actor:	trainee		
Primary System Actor:	Trainee Flight Ops		
Other Participating Actors:	Instructor		
Other Interested Stockholders:	None		
Description:	Allows trainees to view the overall progress they have in each of their classes and view their current grades.		
Precondition:	Trainee has logged into TFO system		
Trigger:	The trainee selects check grades and class progress from the user interface.		
Typical Course Of Events:	**Actor Action**	**System Response**	
	Step 1: Trainee selects check grades and class progress from the user interface.	Step 2: System provides the user with a list of their classes.	
	Step 3: Trainee selects a class from the list.	Step 4: System provides the overall class grade and the percentage of the course that has been completed.	
Alternate Courses:	none		
Conclusion:	The system provides the user with their grades and class progress.		
Postcondition:	none		
Business Rules:	Trainees may not view the grades and class progress of other trainees.		
Implementation Constraints and Specifications:	None		
Assumptions:	None		
Open Issues:	none		

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Author: Team #8 **Date:** 09/30/2022

Use-Case Name:	Check class information	**Use Case Type**	
Use-Case ID:	6	**Business Requirements:**	☐
Priority:	Medium	**System Analysis:**	☐
Source:	TFO Project Case	**System Design:**	☑
Primary Business Actor:	Flight trainees		

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Primary System Actor:	Trainee Flight Ops	
Other Participating Actors:	None	
Other Interested Stockholders:	None	
Description:	Allows trainees to check information for a class	
Precondition:	Trainee has logged into the TFO system	
Trigger:	When trainee is interested in taking a class and needs to know if they have the pre-requisites completed as well as basic information about the class	
Typical Course Of Events:	**Actor Action**	**System Response**
	Step 1: Trainee selects "class information" from user interface	Step 3: System shows user a list of all available classes and prompts user to select one
	Step 3: Trainee selects the class that they wish to view	Step 4: System provides all information about the class, including pre-requisites, credit hours, and description
Alternate Courses:	None	
Conclusion:	The use case ends when the system shows all the class information.	
Postcondition:	None	
Business Rules:	None	
Implementation Constraints and Specifications:	None	
Assumptions:	None	
Open Issues:	None	

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Author: Team #8 **Date: 09/30/2022**

Use-Case Name:	Provide personal/medical information	**Use Case Type**
Use-Case ID:	7	**Business Requirements:** ☐
Priority:	Medium	**System Analysis:** ☐
Source:	TFO Project Case	**System Design:** ☑
Primary Business Actor:	trainee/instructor	
Primary System Actor:	Trainee Flight Ops	
Other Participating Actors:	None	
Other Interested Stockholders:	None	
Description:	The trainee or instructor provides the system with their personal and medical information to keep the information on record.	
Precondition:	The user has logged into the TFO system.	
Trigger:	The user selects provide personal/medical information in the user interface.	
Typical Course Of Events:	**Actor Action**	**System Response**

	Step 1: The user selects provide personal/medical information in the user interface.	Step 2: The system provides a form that contains any previously submitted personal/medical information.
	Step 3: The user enters their personal/medical information into the form.	
	Step 4: The user selects save changes from the user interface.	Step 5: The system provides the user with a prompt asking if they are sure they want to make those changes.
	Step 6: The user selects yes.	Step 7: The system updates the database with the new information.
		Step 8: Send a message to the user stating the change was successful.
Alternate Courses:	Step 6a: If the user selects no then the changes are not saved GO TO Step 2.	
Conclusion:	The system sends a success message to the user confirming that the change was successful, or the user exits the process early.	
Postcondition:	none	
Business Rules:	Users may only provide or modify their own personal/medical information.	
Implementation Constraints and Specifications:	None	
Assumptions:	The personal information for trainees and instructors is different, for example instructors have an instructor certificate ID number; we assume the information entry for the two users are similar.	
Open Issues:	none	

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Author: Team #8 **Date: 09/30/2022**

Use-Case Name:	Log training report	**Use Case Type**
Use-Case ID:	8	**Business Requirements:** ☐
Priority:	Medium	**System Analysis:** ☐
Source:	TFO Project Case	**System Design:** ☑
Primary Business Actor:	Instructor	
Primary System Actor:	Trainee Flight Ops	
Other Participating Actors:	None	
Other Interested Stockholders:	None	
Description:	Allows instructors to log training reports regarding trainees	
Precondition:	Instructor is logged into the TFO system.	
Trigger:	Instructor selects 'Log training report in user interface'	
Typical Course Of Events:	**Actor Action**	**System Response**
	Step 1: Instructor selects 'Log training report in user interface'	Step 2: System verifies that user is an instructor.
		Step 3: If user is an instructor, display UI for adding new training report logs or viewing past training reports.

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		Step 4: Instructors log grades and notes for each maneuver.
Alternate Courses:	Step 2b: If user is not an instructor, return them to the initial user interface.	
Conclusion:	User is shown interface to edit training report logs.	
Postcondition:	none	
Business Rules:	None	
Implementation Constraints and Specifications:	Only instructors are allowed to edit training reports.	
Assumptions:	None	
Open Issues:	none	

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Author: Team #8 **Date: 09/30/2022**

Use-Case Name:	Manage Log-in Credentials	**Use Case Type**	
Use-Case ID:	9	**Business Requirements:**	☐
Priority:	High	**System Analysis:**	☐
Source:	TFO Project Case	**System Design:**	☑
Primary Business Actor:	Trainee, Instructor, or Administrator		
Primary System Actor:	Trainee Flight Ops		
Other Participating Actors:	None		
Other Interested Stockholders:	None		
Description:	User changes their log-in password		
Precondition:	User is logged in		
Trigger:	User wishes to change their password		
Typical Course Of Events:	**Actor Action**	**System Response**	
	Step 1: User selects their profile settings on the user interface	Step 2: System shows user all their account details	
	Step 3: User selects "change password" next to their password	Step 4: System asks user to type in their previous password	
	Step 5: User enters their previous password	Step 6: System verifies the password, then prompts user to enter their new desired password	
	Step 7: User enter desired password	Step 8: System asks user to re-enter their password	
	Step 9: System re-enters the desired password	Step 10: System verifies that the passwords match, then provides confirmation of a successful password change to user	
Alternate Courses:	Step 6: System tells user that the password is incorrect, GO TO STEP 4 Step 10: System tells user that the passwords do not match, GO TO STEP 6		
Conclusion:	Use case ends with the user being provided confirmation of a successful password change		
Postcondition:	User's password has been changed		
Business Rules:	None		

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Implementation Constraints and Specifications:	None
Assumptions:	None
Open Issues:	none

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Author: Team #8 **Date: 09/30/2022**

Use-Case Name:	Check records	**Use Case Type**	
Use-Case ID:	10	**Business Requirements:**	☐
Priority:	Medium	**System Analysis:**	☐
Source:	TFO Project Case	**System Design:**	☑
Primary Business Actor:	Administrator		
Primary System Actor:	Trainee Flight Ops		
Other Participating Actors:	None		
Other Interested Stockholders:	None		
Description:	Allow administrators to check flying records and medical information.		
Precondition:	The user has logged into the TFO system.		
Trigger:	Administrator selects either flying records or medical information to access.		
Typical Course Of Events:	**Actor Action**	**System Response**	
	Step 1: User selects to 'check records'.	Step 2: System verifies that the user is an administrator.	
		Step 3: If user is an administrator, display links to either medical information or flying records.	
	Step 4: User selects medical information or flying records.	Step 5: System returns data on medical information and flying records for trainees and instructors.	
Alternate Courses:	Step 2b: If the user is not an administrator, return to the initial user interface.		
Conclusion:	User is presented with relative data based on what they requested.		
Postcondition:	none		
Business Rules:	None		
Implementation Constraints and Specifications:	Only administrators are allowed to check records besides their own. (Trainees can only access their own flight data | trainees and instructors can only access their own medical data).		
Assumptions:	None		
Open Issues:	none		

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Author: Team #8 **Date: 09/30/2022**

Use-Case Name:	Log-in	**Use Case Type**	
Use-Case ID:	11	**Business Requirements:**	☐
Priority:	High	**System Analysis:**	☐
Source:	TFO Project Case	**System Design:**	☑

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Primary Business Actor:	Administrator, trainees, instructors	
Primary System Actor:	Trainee Flight Ops	
Other Participating Actors:	None	
Other Interested Stockholders:	None	
Description:	Allow user to login to the TFO system.	
Precondition:	None	
Trigger:	User selects to login to the TFO system.	
Typical Course Of Events:	**Actor Action**	**System Response**
	Step 1: User enters username and password	Step 2: System verifies the user's credentials.
		Step 3: System gives the user access to the Trainee Flight Ops system.
Alternate Courses:	Step 2b: If the user credentials are incorrect, report this to the user and prompt for re-entry. Step 2c: If the user has entered incorrect credentials 5 times, lock out for an hour and direct to password reset through the user's email linked to their account.	
Conclusion:	User is logged into the system	
Postcondition:	User can use the system	
Business Rules:	Users are only allowed to log in to their own account.	
Implementation Constraints and Specifications:	None	
Assumptions:	None	
Open Issues:	none	