

# Use Case Specification

To understand better the following **Use Case Specifications**, first check the [Use Case Diagram](#) that illustrates them.

These Use Cases are specified by the initials US, which refers to **User Stories**. Those User Stories will be used later to make the project planning with an agile methodology (Scrum).

There are some use cases grouped by the same type of action.

Id	US011, US021, US031, US041, US051
Name	List users dogs samples incidents infractions
Description	List all elements of the corresponding class in table format.
Normal Flux	
Actors	User with the required role for each object data management.
Pre-conditions	To be logged in the app.
Activation	Click on list button.
Description	A list of users dogs samples incidents infractions appears in table format.
Post-conditions	User can click on a row to check the detailed info about that object.
Alternative Flux 1	
Description	There is no elements in database to list.
Post-conditions	A descriptive info message is shown to the user.
Alternative Flux 2	
Description	There is some database error while retrieving data.
Post-conditions	A descriptive warning message is shown to the user.

Id	US012, US022, US032, US042, US052
Name	Filter users dogs samples incidents infractions
Description	Filter all elements of the corresponding class in table format.
Normal Flux	
Actors	User with the required role for each object data management.

Pre-conditions	To be logged in the app.
Activation	Click on filter button.
Description	User types in or selects the filter criteria to get a list of filtered users dogs samples incidents infractions in table format.
Post-conditions	User can click on a row to check the detailed info about that object or change the filtering criteria.
Alternative Flux 1	
Description	There is no elements in database that match the filtering criteria.
Post-conditions	A descriptive info message is shown to the user.
Alternative Flux 2	
Description	There is some database error while retrieving data.
Post-conditions	A descriptive warning message is shown to the user.

Id	US013, US023, US033, US043, US053
Name	Add user dog sample incident infraction
Description	Add a new object of a given class to its corresponding table in database.
Normal Flux	
Actors	User with the required role for each object data management.
Pre-conditions	To be logged in the app.
Activation	Click on add button.
Description	User completes the according form to add a new user dog sample incident infraction.
Post-conditions	A success message is shown to the user.
Alternative Flux 1	
Description	There is some form field with validation errors.
Post-conditions	As many info messages as validation errors are shown to the user.
Alternative Flux 2	
Description	There is some error while sending data to database.
Post-conditions	A descriptive warning message is shown to the user.

Id	US014, US024, US034, US044, US054
Name	Modify users dogs samples incidents infractions
Description	Modify an object of the corresponding class.
Normal Flux	
Actors	User with the required role for each object data management.
Pre-conditions	To be logged in the app.
Activation	Click on modify button.
Description	User completes the according form to modify an existing user dog sample incident infraction.
Post-conditions	A success message is shown to the user.
Alternative Flux 1	
Description	There is some form field with validation errors.
Post-conditions	As many info messages as validation errors are shown to the user.
Alternative Flux 2	
Description	There is some error while sending data to database.
Post-conditions	A descriptive warning message is shown to the user.

Id	US015, US025, US035, US045, US055
Name	Delete user dog sample incident infraction
Description	Delete an existing object of a given class from its corresponding table in database.
Normal Flux	
Actors	User with the required role for each object data management.
Pre-conditions	To be logged in the app.
Activation	Click on delete button.
Description	User confirms that is sure to delete the selected user dog sample incident infraction.
Post-conditions	A success message is shown to the user.
Alternative Flux 1	

Description	The selected object cannot be deleted due to dependency reasons.
Post-conditions	A descriptive warning message is shown to the user.
Alternative Flux 2	
Description	There is some error while sending the deletion action to database.
Post-conditions	A descriptive warning message is shown to the user.

Id	US016
Name	Login
Description	Log in the app with username and password.
Normal Flux	
Actors	Any existing user.
Pre-conditions	To be registered in the app.
Activation	Click on login button.
Description	User types in the username and password and submits the form.
Post-conditions	The user is redirected to the dashboard according with its role.
Alternative Flux 1	
Description	The username doesn't exist.
Post-conditions	A descriptive info message is shown to the user.
Alternative Flux 2	
Description	The password is not valid for the given username.
Post-conditions	A descriptive info message is shown to the user.

Id	US017
Name	Logout
Description	Log out from the app.
Normal Flux	
Actors	Any existing user.
Pre-conditions	To be logged in the app.

Activation	Click on logout button.
Description	User clicks in the logout button to end its active session in the app.
Post-conditions	The user is redirected to the home page.
Alternative Flux 1	
Description	There is some error while sending the logout action to the backend.
Post-conditions	A descriptive warning message is shown to the user.

Id	US018
Name	Register
Description	Register a new user in the app.
Normal Flux	
Actors	Any future worker in our app.
Pre-conditions	Not to be registered yet in the app.
Activation	Click on register button.
Description	User completes the required fields and submits the form.
Post-conditions	The user is automatically logged in and redirected to the welcome page.
Alternative Flux 1	
Description	The typed username already exists.
Post-conditions	A descriptive info message is shown to the user.
Alternative Flux 2	
Description	The fields password and password repeat don't match.
Post-conditions	A descriptive info message is shown to the user.

Id	US036 (includes US0361, US0362, US0363)
Name	Analyze Sample (includes Sequence Sample, Obtain STR pattern, Find STR match)
Description	Analyze a new or an existing sample.
Normal Flux	

Actors	User with Bioinformatics Technician ("bio") role.
Pre-conditions	To be logged in the app as a bio user.
Activation	Click on analyze sample button.
Description	Firstly, the sequence machine gives us the FASTA file with the raw DNA. Secondly, the STR pattern is obtained (number of repeats of each target locus). Thirdly, the previous STR pattern is tested against all database to find a potential matching.
Post-conditions	If matching occurs, a success message is shown to the user and the existing dog details are shown. If matching doesn't occur and the sample comes from the veterinarian clinic, the current sample is stored as the first sample of the new dog, as well as its STR pattern; otherwise (the sample comes from the street agent), the sample is stored as an anonymous sample.
Alternative Flux 1	
Description	There is some errors while obtaining STR pattern.
Post-conditions	A descriptive info message is shown to the user.
Alternative Flux 2	
Description	There is some errors while looking for STR matching.
Post-conditions	A descriptive info message is shown to the user.

Id	US056
Name	Validate Infraction
Description	Validate (approve or reject) an infraction proposal.
Normal Flux	
Actors	User with Police Officer ("oficer") role.
Pre-conditions	An existing DNA sample has been match with another one, that means, a dog has been identified.
Activation	Click on validate infraction button.
Description	User checks all the evidences of the infraction and submits the form with the "approve" button.
Post-conditions	An automated official document of approval is generated and a descriptive success message is shown to the user.
Alternative Flux 1	

Description	User checks all the evidences of the infraction and submits the form with the “reject” button.
Post-conditions	An automated official document of rejection is generated and a descriptive success message is shown to the user.
Alternative Flux 2	
Description	There is some error while sending the validation action to the backend.
Post-conditions	A descriptive info message is shown to the user.

Id	US057
Name	Generate Official Document
Description	Generate a PDF document to leave proof of the Police Officer approval or rejection of an infraction.
Normal Flux	
Actors	This is an automatic process after each time an officer validates an infraction.
Pre-conditions	An existing infraction proposal has to be with “pending” status.
Activation	An officer clicks on “approve” or “reject” button of the validate infraction form.
Description	User checks all the evidences of the infraction and submits the form with the “approve” button.
Post-conditions	An automated official document of approval is generated and a descriptive success message is shown to the user.
Alternative Flux 1	
Description	There is some error while sending the validation action to the backend.
Post-conditions	A descriptive info message is shown to the user.