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# Aircraft Maintenance System

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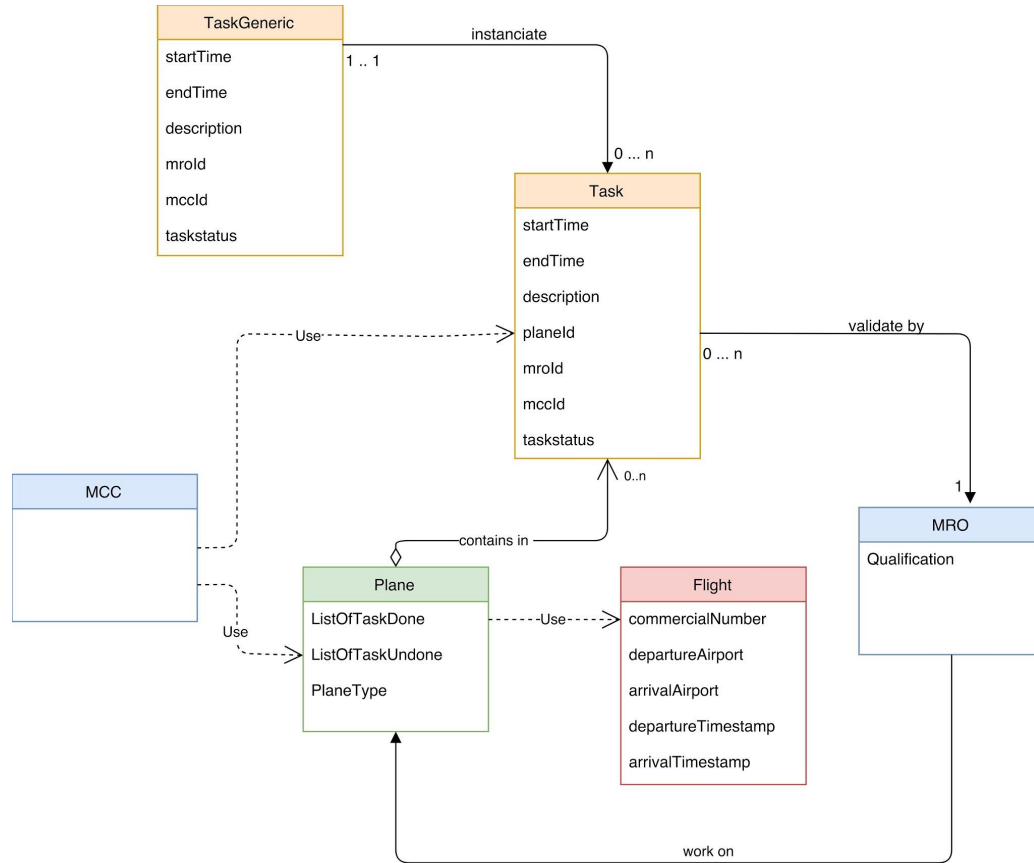
# 1 - System Definition

- Aircraft maintenance planning software.
- Sets of tasks to do in the coming weeks.
- Association of human and technical resources for all aircraft maintenances.

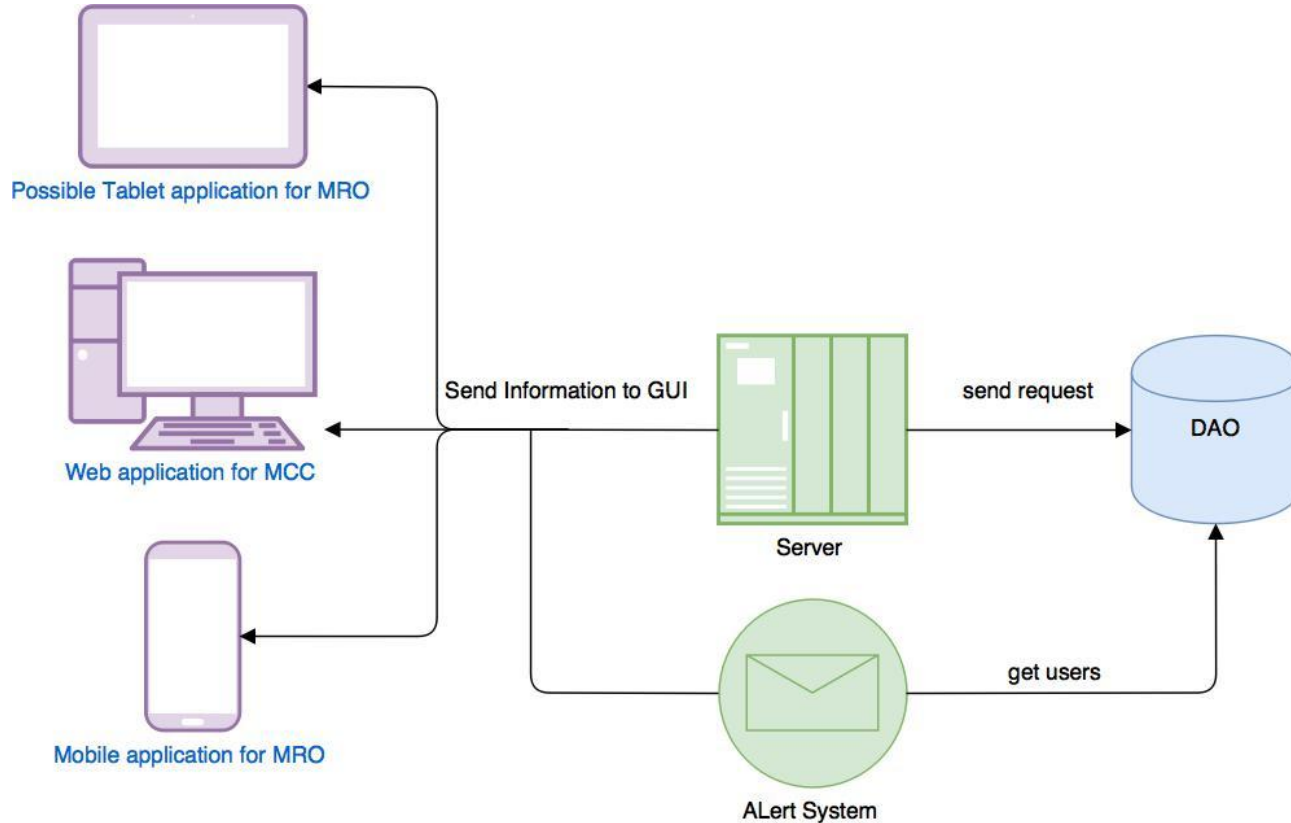
## 2 - Users

- Maintenance Control Center (MCC) : distribute tasks to some MRO.
- Maintenance Repair and Overhaul (MRO) : consult planned tasks.

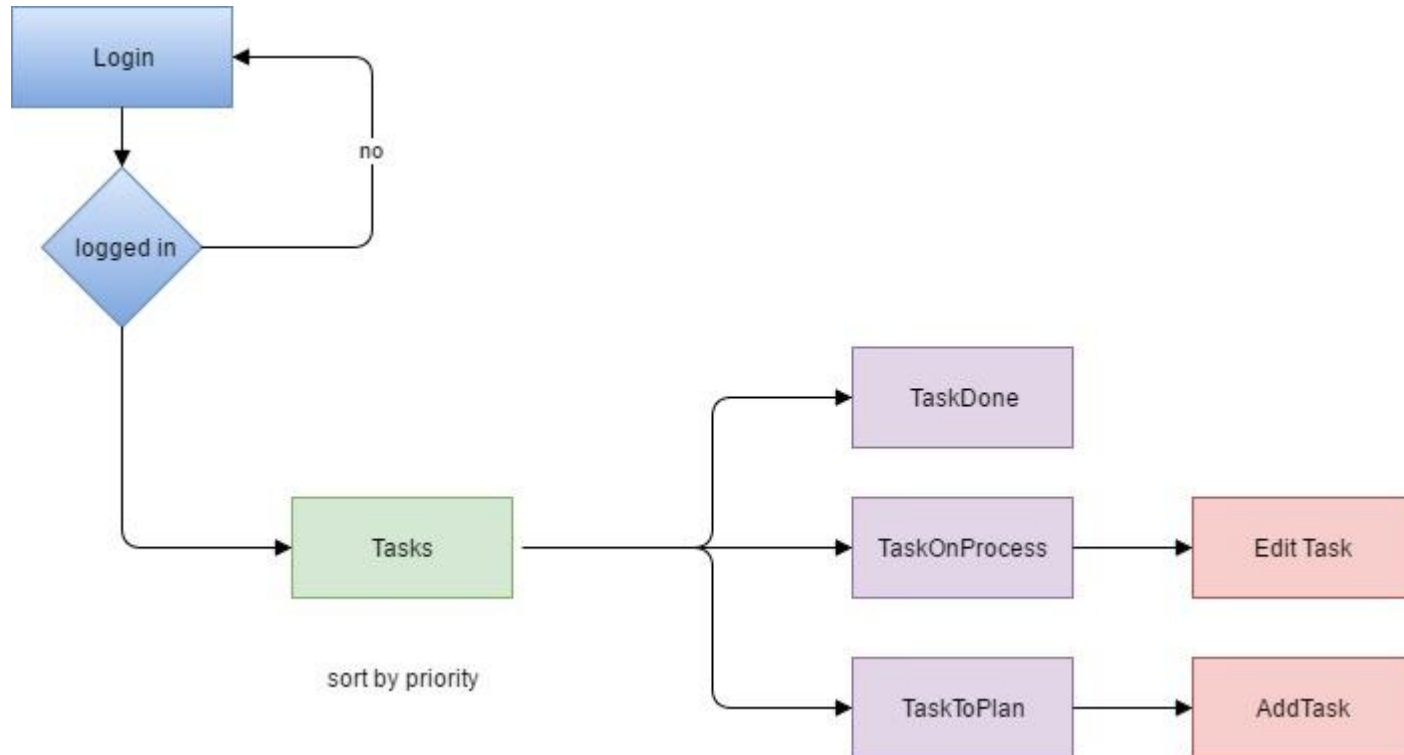
# 3 - Business Objects



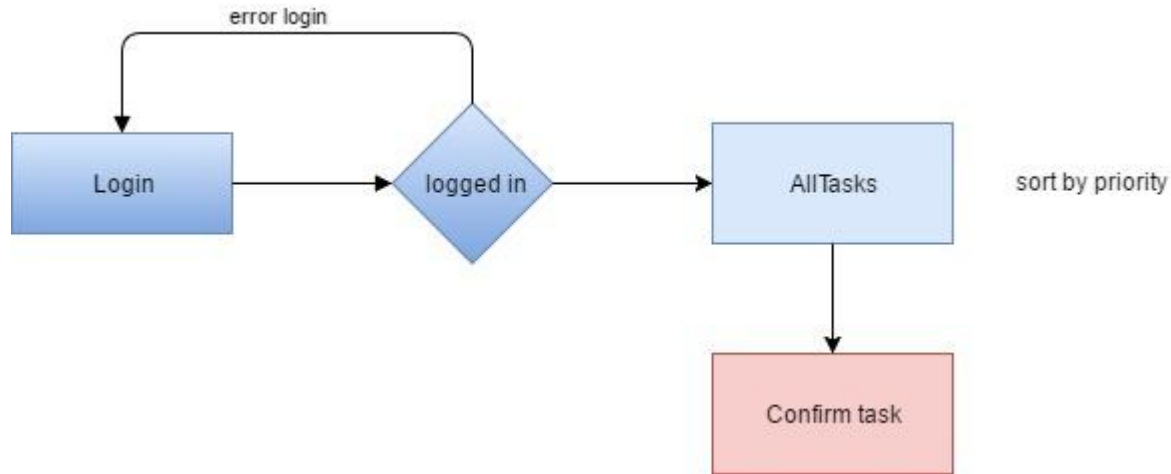
# 4 - Technical Diagram



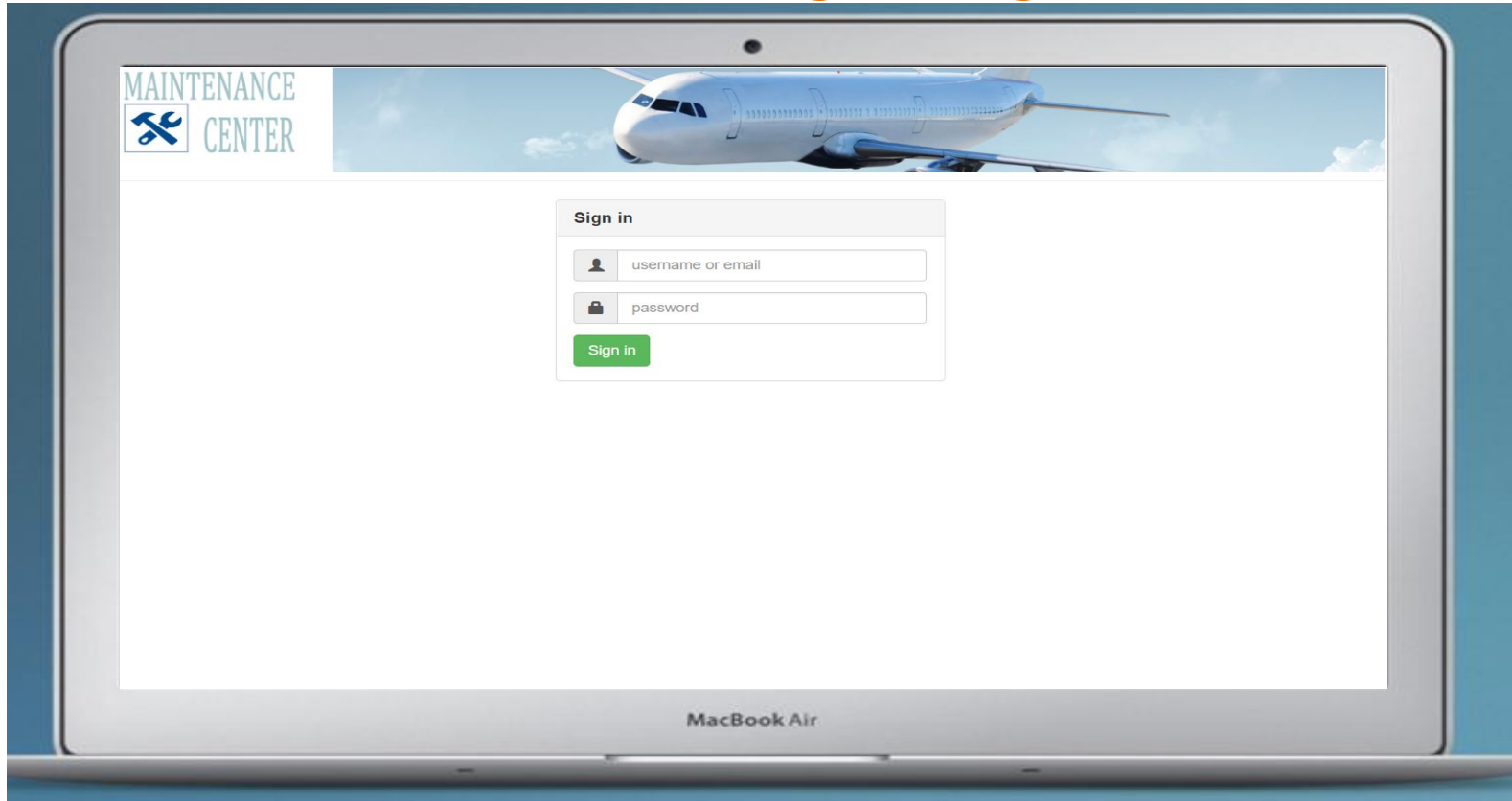
## 5 - Navigation Diagram : MCC Interface



## 5 - Navigation Diagram : MRO Interface

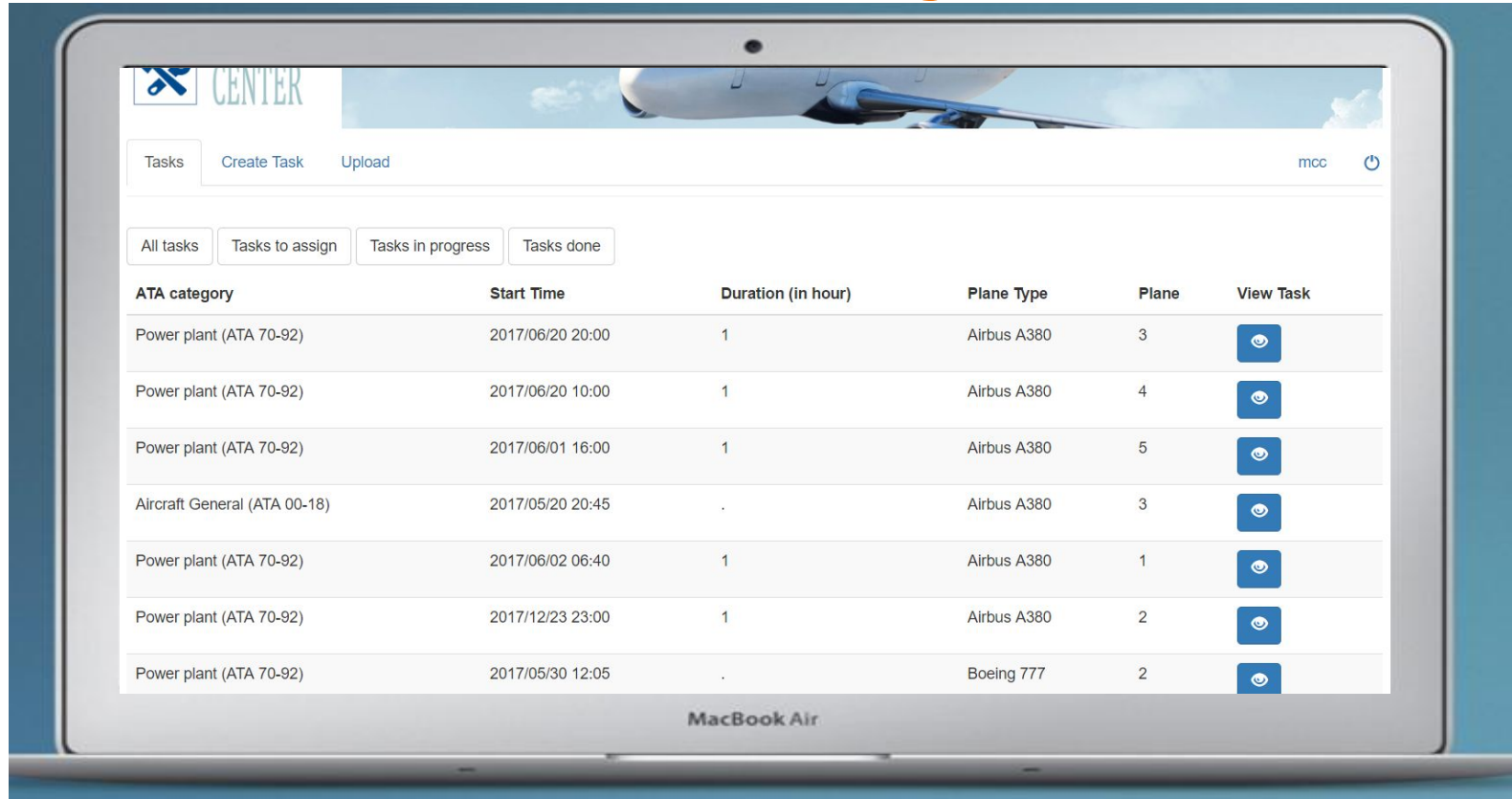


## 6 - Mockups : MCC/MRO Login Page

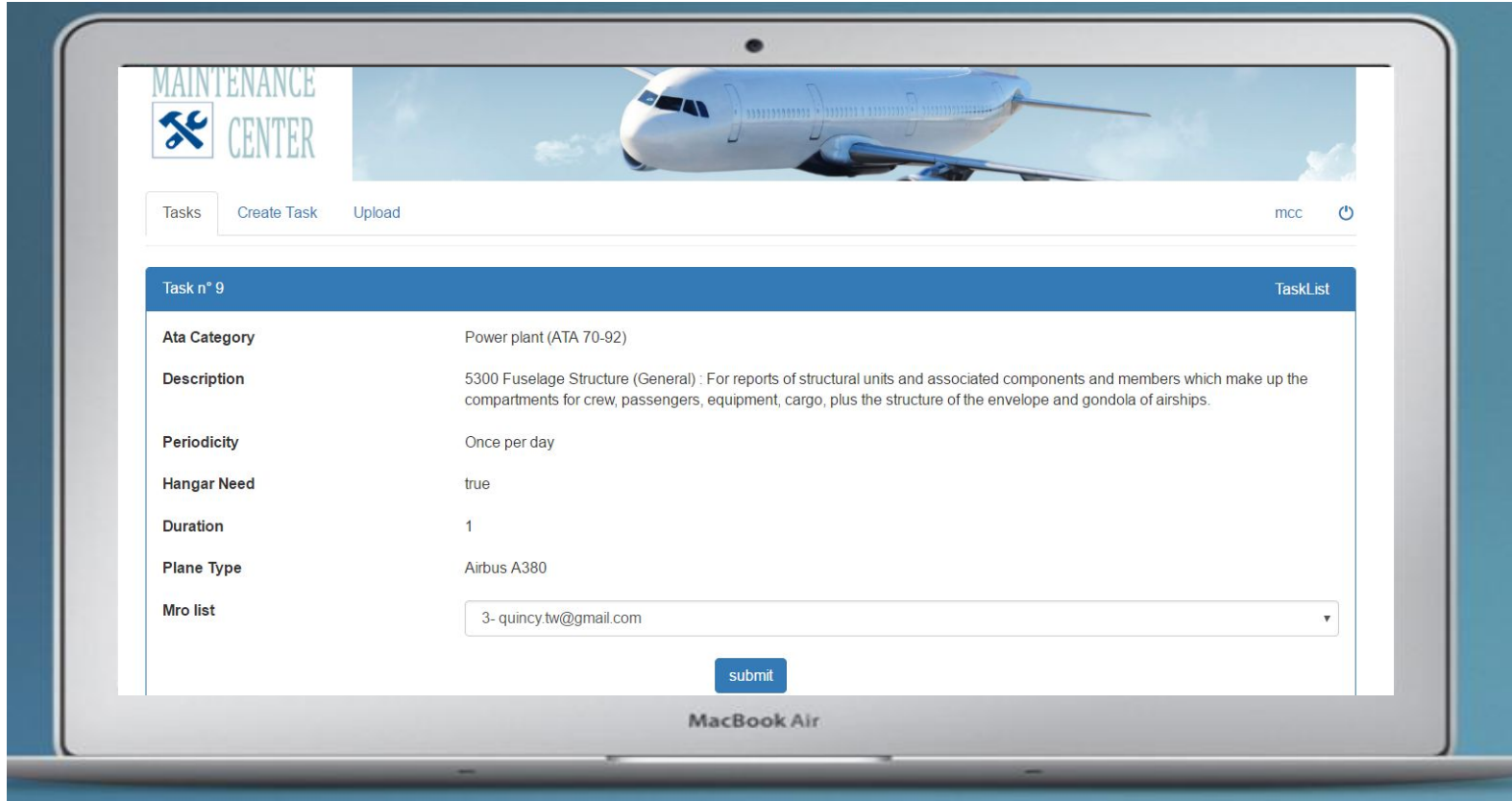




## 6 - Mockups : MCC Task to assign



## 6 - Mockups : MCC View task to assign

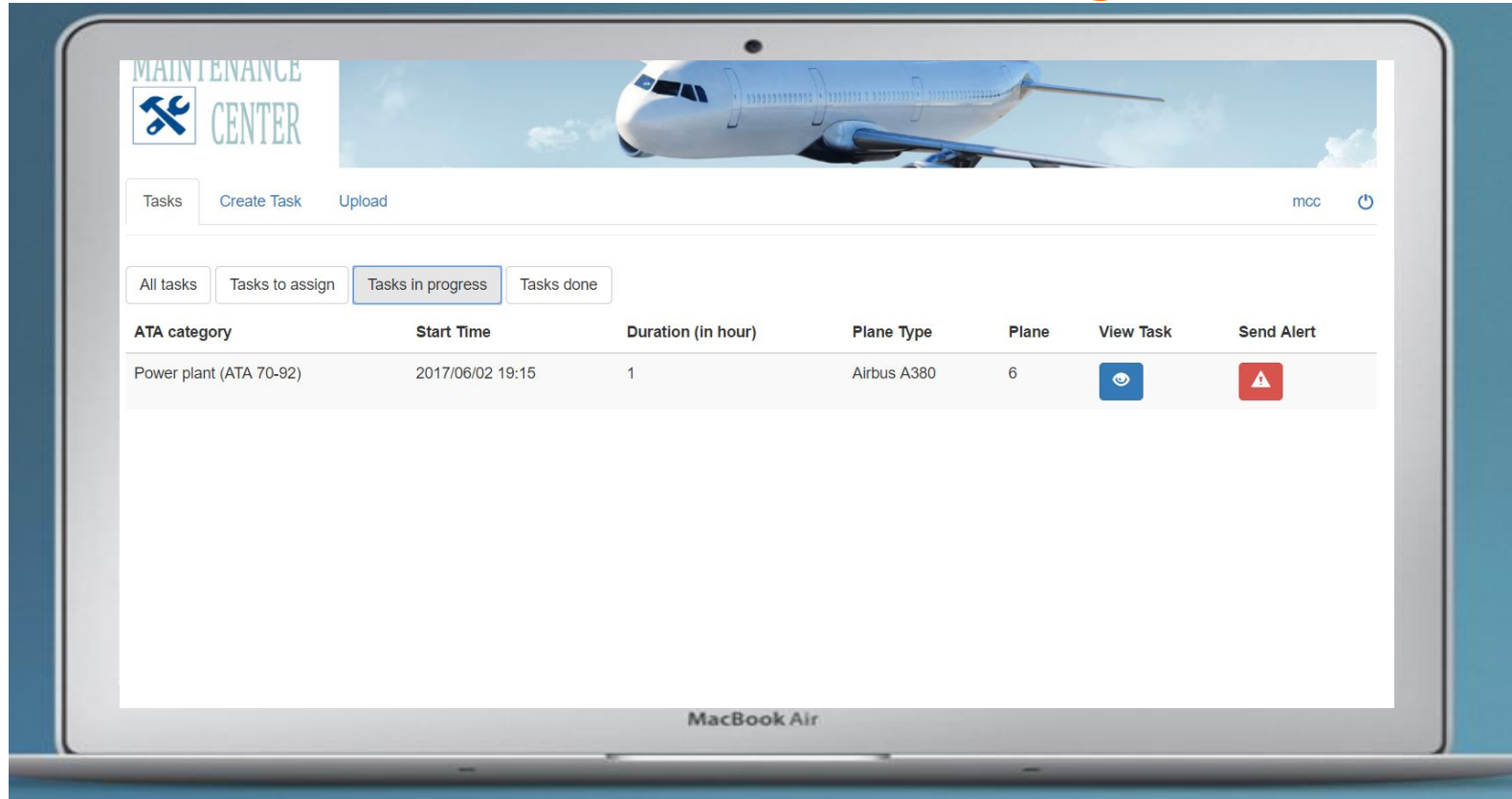


The image shows a mockup of a MacBook Air displaying a web application interface for a Maintenance Center (MCC). The interface features a header with the 'MAINTENANCE CENTER' logo and a banner image of an airplane. Below the header, there are navigation tabs: 'Tasks', 'Create Task', and 'Upload'. The main content area displays a task form for 'Task n° 9'. The form includes the following fields:

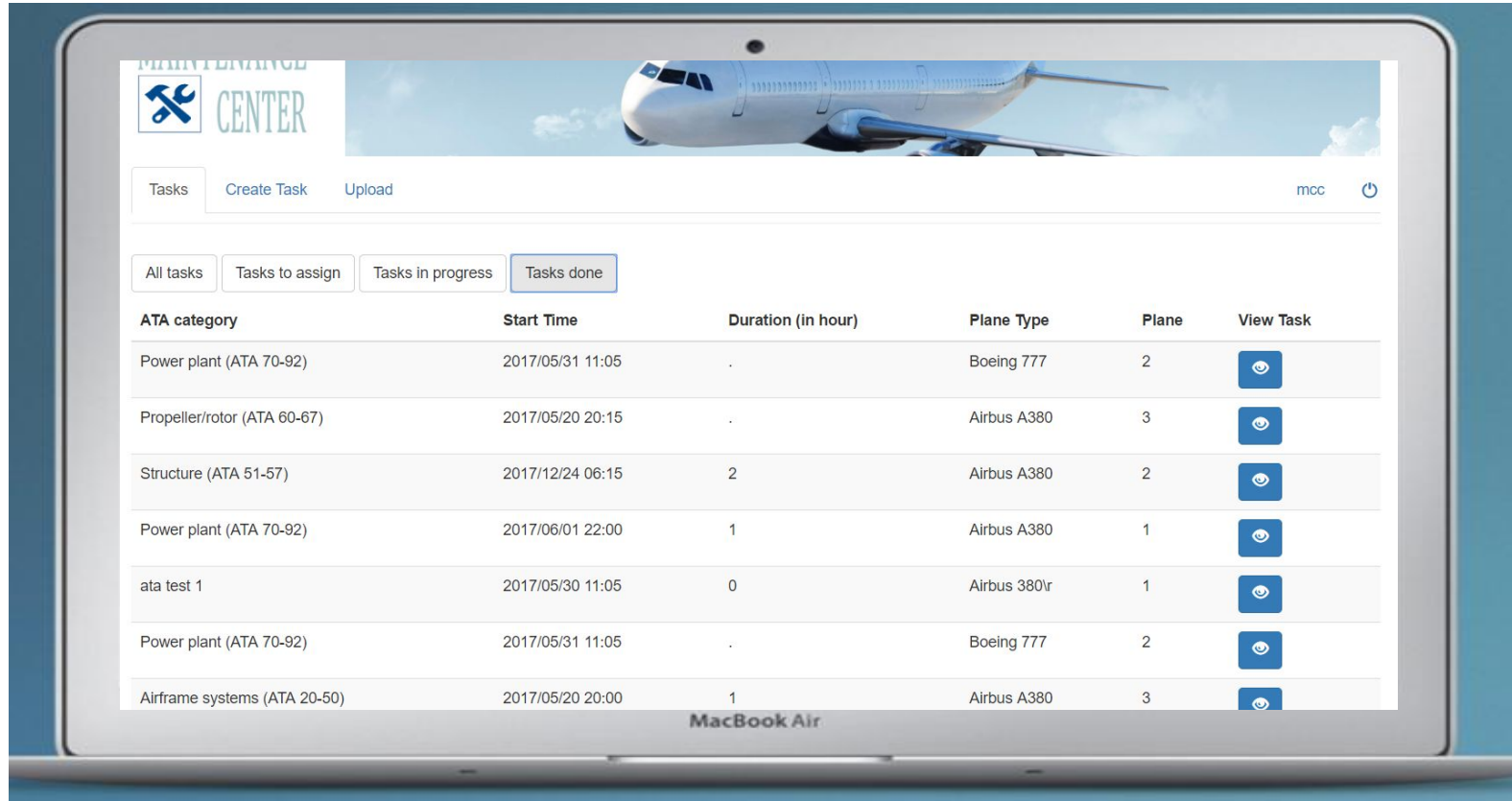
- Ata Category:** Power plant (ATA 70-92)
- Description:** 5300 Fuselage Structure (General) : For reports of structural units and associated components and members which make up the compartments for crew, passengers, equipment, cargo, plus the structure of the envelope and gondola of airships.
- Periodicity:** Once per day
- Hangar Need:** true
- Duration:** 1
- Plane Type:** Airbus A380
- Mro list:** 3- quincy.tw@gmail.com

A 'submit' button is located at the bottom of the form. The MacBook Air logo is visible at the bottom of the screen.

## 6 - Mockups : MCC/MRO Task in progress



## 6 - Mockups : MCC/MRO Task Done



## 6 - Mockups : MCC Create Task

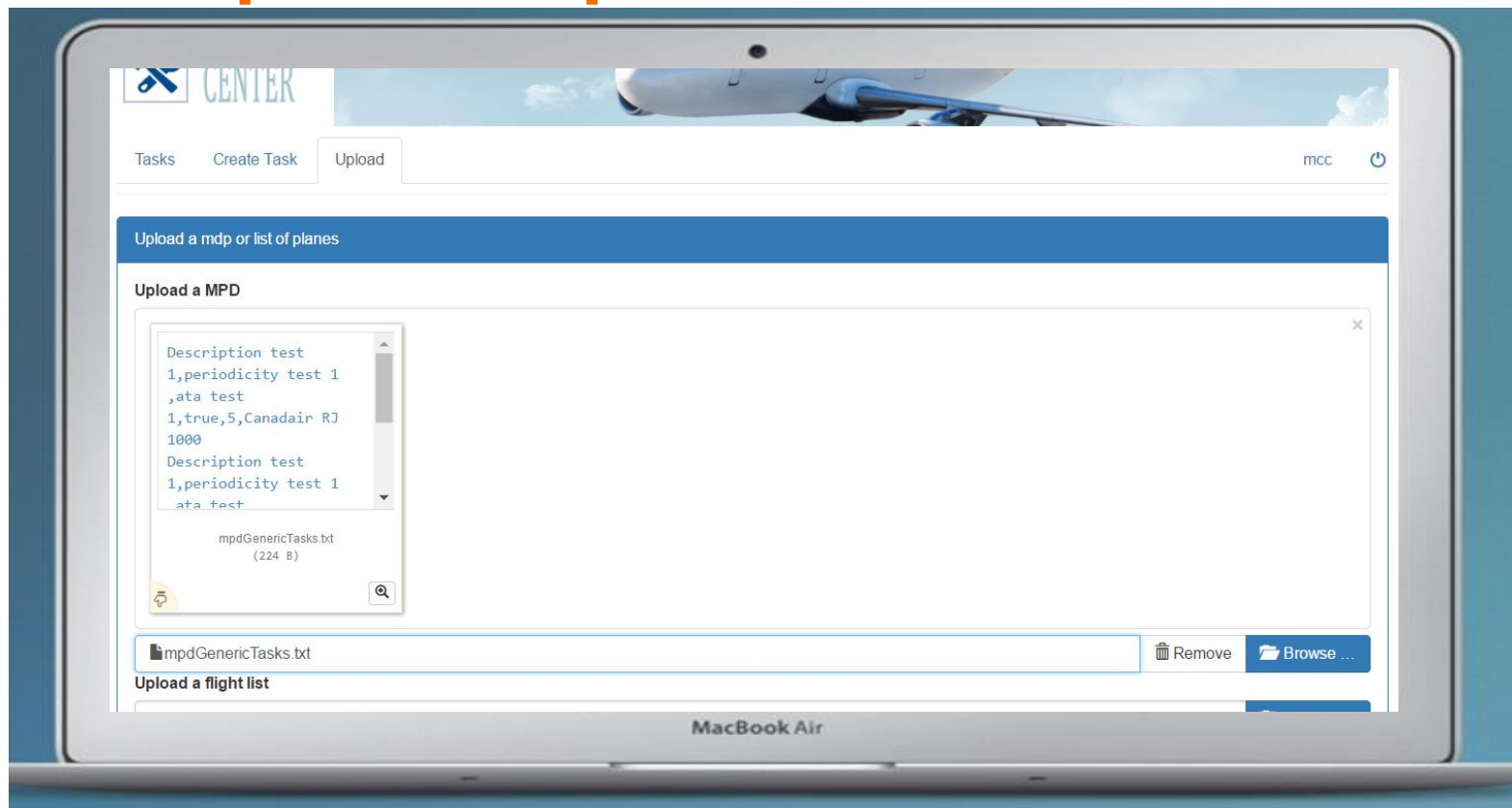
The screenshot displays the 'MCC Create Task' web application. At the top, there are navigation tabs: 'Tasks', 'Create Task' (active), and 'Upload'. A user profile 'mcc' and a power icon are in the top right. Below the tabs is a 'Create a new task' input field. The main form is divided into two columns. The left column contains three selection fields: 'Chose a plane' (3- Canadair RJ 1000), 'Chose a Task' (9-Airframe systems (ATA 20-50)), and 'Chose a Date' (2017/05/31 13:05). Each field has a confirmation checkbox. The right column displays the details for 'Task Generic n° 9', including its category, description, and other attributes.

Chose a plane	Chose a Task	Chose a Date
3- Canadair RJ 1000	9-Airframe systems (ATA 20-50)	2017/05/31 13:05

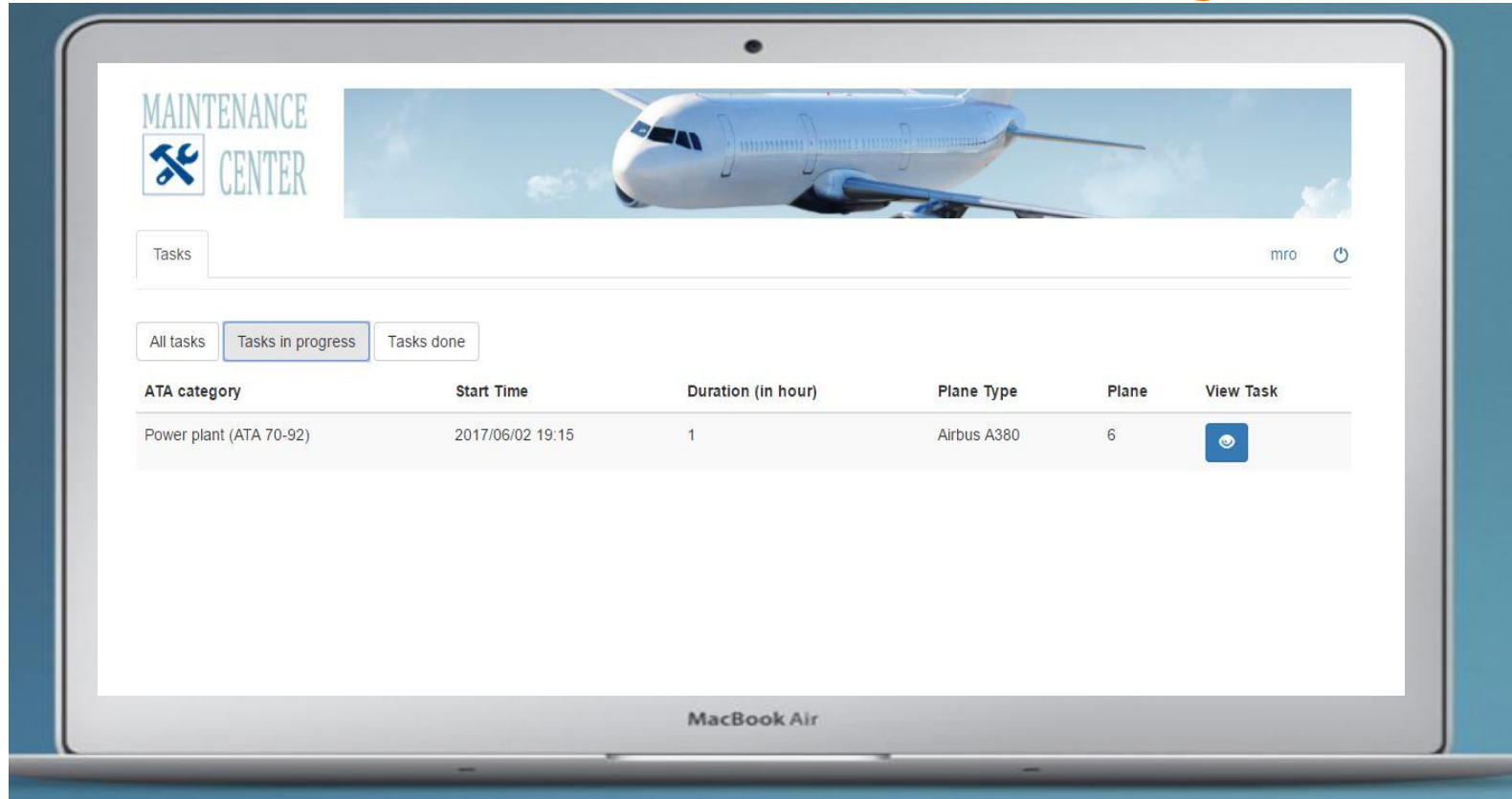
  

Task Generic n° 9	
Ata Category	Airframe systems (ATA 20-50)
Description	2100 Air Conditioning System : For miscellaneous parts that cannot be associated with specific air conditioning, pressurization, or distribution codes. Examples are lines, hoses, etc., with no reference to the specific using system on the incoming report. Also, for those units and components furnishing a means of pressurizing, heating, cooling, moisture controlling, filtering, and treating the air used to ventilate areas of the fuselage within the pressure vessel.
Periodicity	Each flight
Hangar Need	true
Duration	0.5

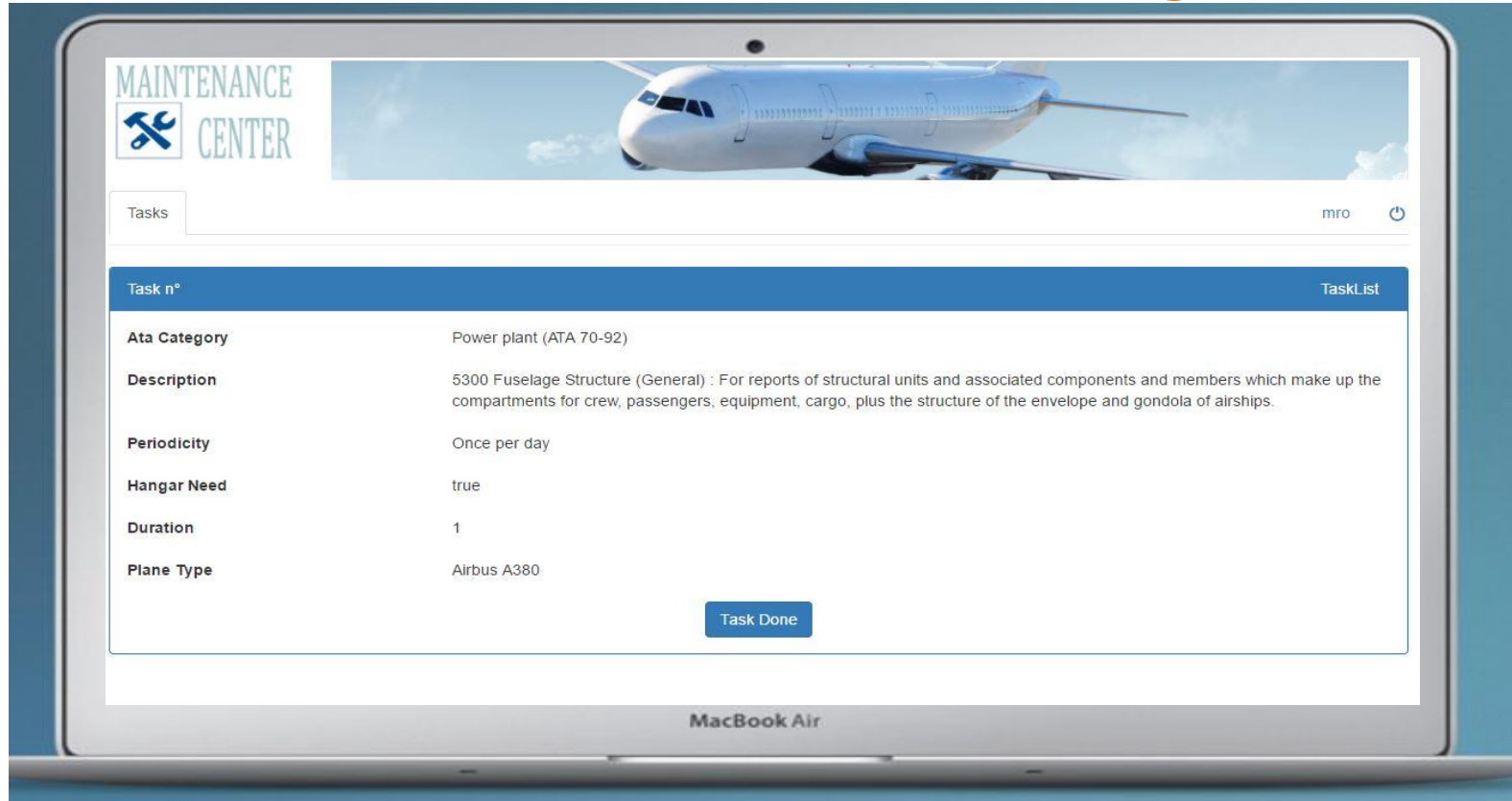
## 6 - Mockups : MCC Upload



## 6 - Mockups Mobile : MRO Tasks In Progress



## 6 - Mockups Mobile : MRO Task In Progress View





# 7 - Web Services

Type	URL	Behavior
GET	/task/mro/{user_id}	Returns a list of tasks by mro's role
GET	/task/all	Returns all the task
GET	/task/{task_id}	Returns all the properties of a task
POST	/task/add/	Add one new task
GET	/task/genericByPlane/{type}	return a list of generic task by plane
GET	/task/mro/{id}	return a list of Task by mro id
GET	/task/mro/{mrold}/	attribute mro to task
POST	/task/send/{id}	send alert to mro
POST	/task/done/{id}	set a task to done

# 7 - Web Services

Type	URL	Behavior
POST	/task/mpd/{mpd}	upload a list of generic task
GET	/plane/all	Return a list of planes
GET	/mro/all	return a list of mro
POST	/login/{user}/{pass}	return the role of user
POST	/flight//addFlights/{flights}	upload a list of flight

# Group Frontend

DIALLO Mohamed  
HAMED Krimo  
INGANI Jude  
SY Amadou



# Task Distributions

- Jude & Amadou : taskFile createTaskFile
- Mohamed & Krimo : createTaskFile, uploadFile, taskFile

# Group Web Service

DIABIRA Binta  
DIALLO Mohamed  
FEKIH AHMED Mériem  
ZIDANE Abderrazak

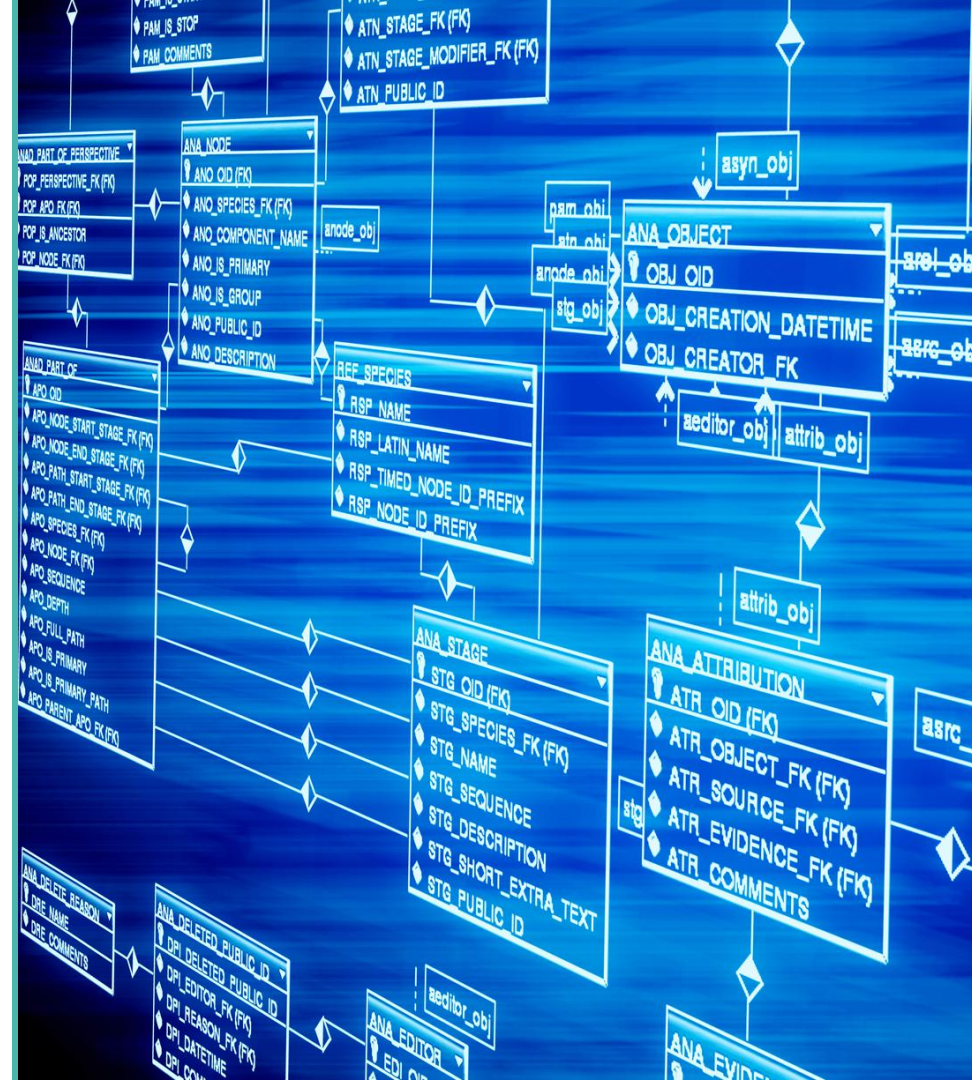


# Task Distributions

- Abdel : EmailAlertService.java, Taskstub.java
- Mohamed : Taskstub.java, User login
- Binta : Upload task and flight, taskstub

# Group Backend

HSIEH Yung-Kun  
OULEBSIR Hocine  
KABA Saran  
FEKIH AHMED Meriem



# Task Distributions

## HSIEH Yung-Kun

1. Infrastructure of ElasticSearch
2. TaskImpl.java
3. TaskInfoOrderByDateComparator.java
4. JUnit test
5. Support WebService & Frontend team

## KABA Saran

1. MroImpl.java
2. McclImpl.java
3. Design data schemas from entities
4. UML class diagramme

## OULEBSIR Hocine

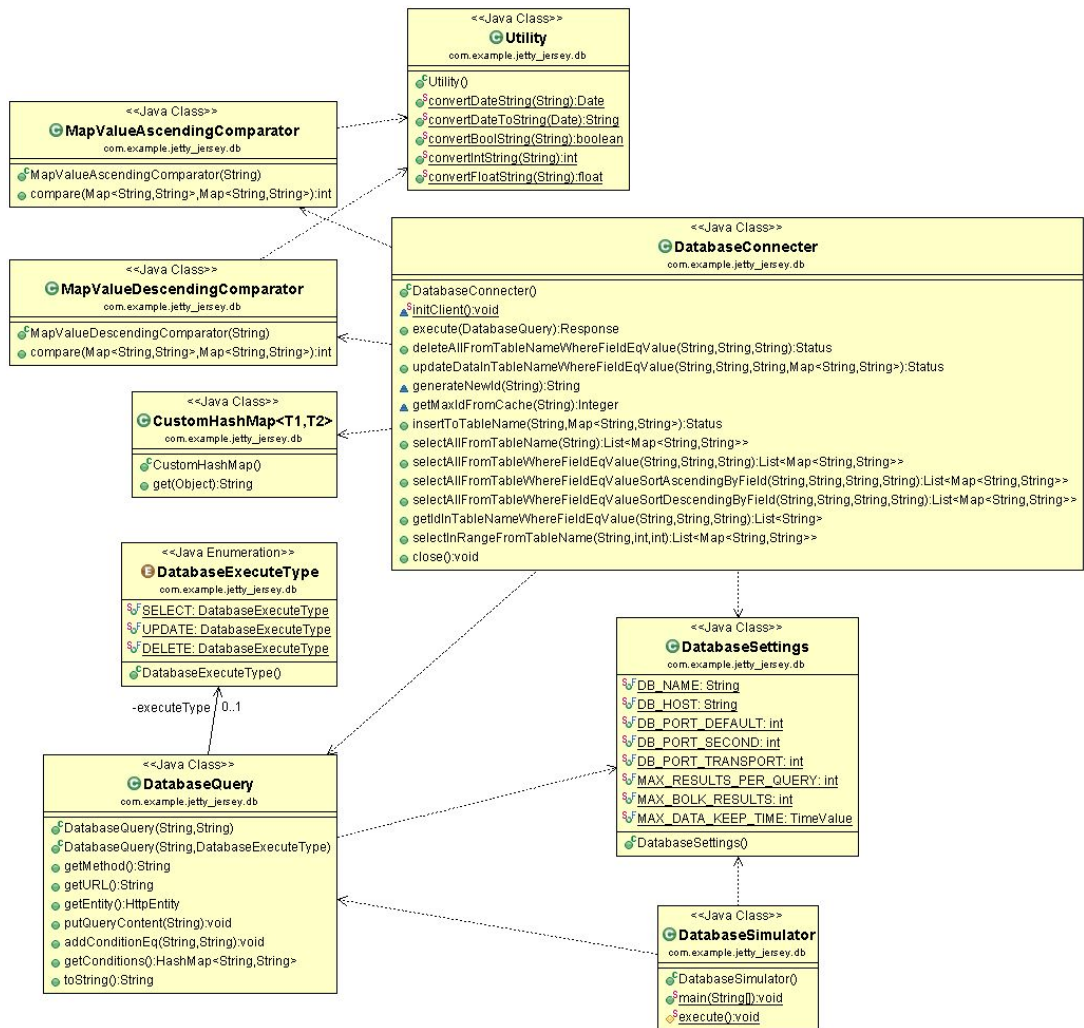
1. FlightImpl.java
2. PlaneImpl.java
3. Design data simulation

## FEKIH AHMED Meriem

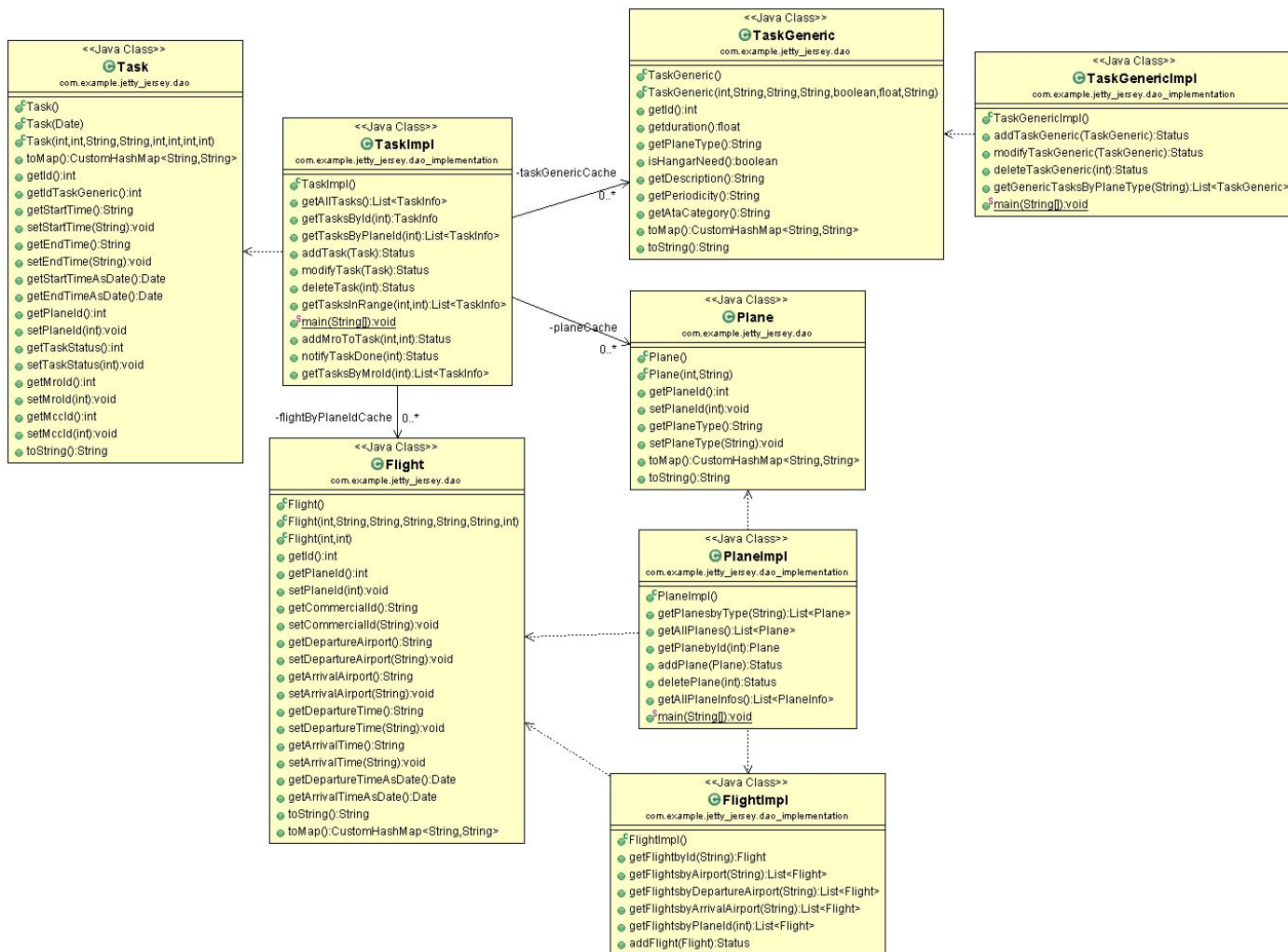
1. TaskGenericImpl.java
2. Support WebService team



# Class Diagramme Database



# Class Diagramme DAO



# Project Members

- Diallo Mohamed
- Sy Amadou
- Ingani Jude
- Hamadi Krimo
- Fekih Ahmed Meriem
- Kaba Saran
- Yung-kun Hsieh
- Diabira Binta
- Oulebsir Hocine
- Zidane Abderrazak