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|  | **JKU - JOHANNES KEPLER UNIVERSITÄT LINZ | JKU LINZ**  **ISSE - Institute of Software Systems Engineering** |  |

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| **Course:** UE Software Engineering | **Course ID:** 343.309 | **Semester:** 2021W |
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## Milestone 1 Report – Team 2

### 1. Overall Architecture



The airport management system is based on the four subsystems like they are displayed in the above package diagram. Every subsystem directly communicates with all other subsystems since the control system management as a central part is not available in this case. This specifically means that Airside and Landside management provide their vehicles’ route information and consume them from the respective other part instead of having the control system management between them. We can see that every subsystem provides and consumes information from every other subsystem which makes it quite interconnected.

### 2. System

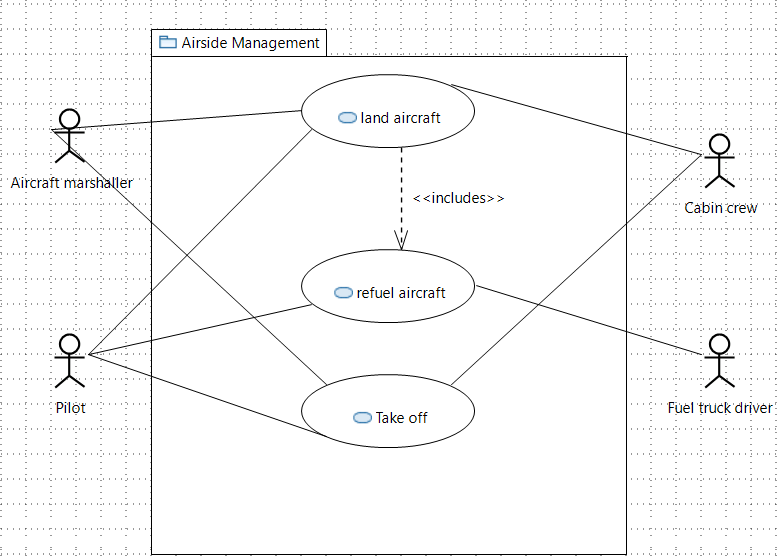
Artifacts to be described here: **Use Case Diagram, Use Case Specifications (one per use case)**

**What to describe:**

* Describe the Actors of your system (use case diagram image). Add a brief textual description for each Actor.
* Describe the Actors relations with the use cases (use case diagram image).
* Describe the flow of actions/steps performed in each use case (use case specification). For the specification, please add it as text, not image.
* For each sub-system (see sections next), please provide the same information given for the system.

#### 2.1 Sub-system 1 / Airside management - [Jonas **Reichhardt**]

The airside management handles aircraft related information and actions. For example, aircraft landing and takeoff.



The aircraft marshaller is ground personnel which guides pilots from starting/landing strip to parking spot and vice versa, in our case he also gives landing/starting permission.

On the aircraft the cabin crew manages customer request, safety briefing and it acts as a communication relay between pilot and passengers.

Regardless of the situation pilots are involved in every action in the airside management. They land the aircraft, notify the landside management to get the aircraft refueled and takeoff when all passengers and cargo is loaded.

The fuel truck driver is part of the landside management but is necessary to get aircrafts refueled and ready to takeoff.

**Land aircraft**

After the pilot requests landing clearance from the aircraft marshaller, he notifies the cabin crew that landing procedure has started. The cabin crew informs the passengers that they should put on and fasten their seatbelts. Next the aircraft marshaller provides landing clearance and the landing strip to the pilot. After the pilot landed the aircraft the marshaller provides gate number and the parking spot for the time after the passengers left, he furthermore gives instruction to the pilot to ease parking. The pilot acknowledges the information he got, and the cabin crew departs the passengers row-wise. The “refuel aircraft” use-case is gets triggered.

**Refuel aircraft**

The pilot request fuel truck from the landside management to his current location. The fuel truck driver gets the information, notifies the pilot that he will refuel the aircraft, drives to the provided location, and refuels the aircraft.

**Take off**

Pilot goes through all checklists and requests takeoff permission from the aircraft marshaller, which provides it together with the starting strip and furthermore signals guidance instruction to the pilot for easer maneuvering. The pilot acknowledges the information and informs the cabin crew that the take off procedure has started. Directly after that the cabin crew asks the passengers to put on their seatbelts. After the pilot moved the aircraft to the designated starting strip, he performs the takeoff.

#### 2.2 Sub-system 2/Sub-system name - [Student **N**ame]

#### 2.3 Sub-system 3/Sub-system name - [Student **N**ame]

#### 2.4 Sub-system 4/Sub-system name - [Student **N**ame]

#### 2.5 Sub-system 5/Sub-system name - [Student **N**ame]

### 3. Design Decisions

The decisions related to the project. Why was something done?

### 4. Change Log

What have changed between different deliverables (D3, D4...)