

**Frankfurt University of Applied Sciences**  
**Aviation MBA – Project Management (Module 3)**

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**Examination**

**- 11<sup>th</sup> January 2021 -**

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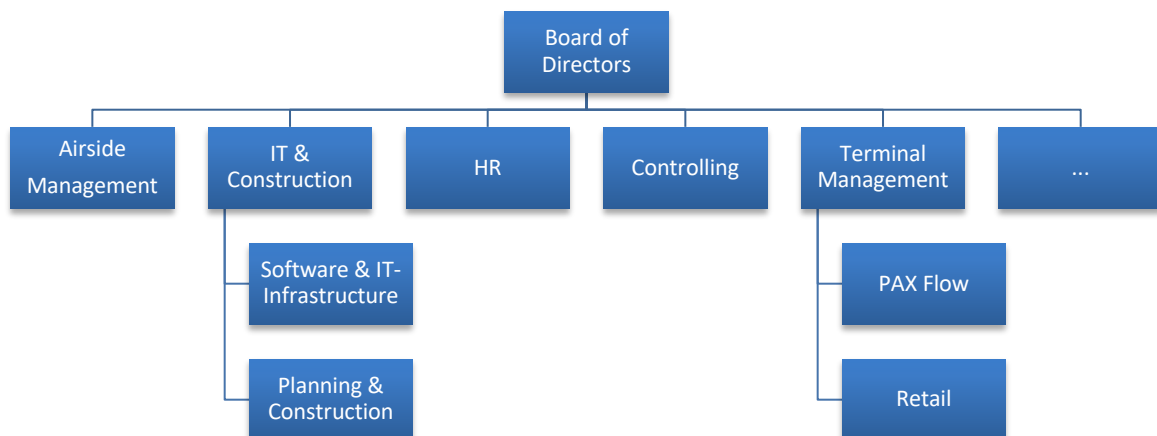
Time: 60 minutes

Remark: 60 points can be reached as a maximum

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The following project example is the basis for the following tasks:

Tropical Islands Airports Inc. wants to implement a COVID-19 testing procedure. The company is organized in functional divisions.



The following statements are the result of a first brainstorming of various managers and the board of directors which You as the designated project manager should now transfer.

- Time-to-market should be as fast as possible, preferable less than 3 months.
- We need to set up an on-site laboratory.
- The test results should be available as fast as possible – no longer than 30 minutes.
- We have to decide where to place the testing area.
- You should develop an APP for the PAX and an IT system to verify that all PAX are tested and “Positives” are immediately separated. Check the market if such a software is already available.
- We have to hire qualified staff.
- Testing of the new process requires at least 1 month.
- Construction of a site needs 2 weeks planning and 4 weeks for construction.
- The required space should be minimal – we do not want to waste retail space.
- The budget is limited to 500,000 € as an initial investment. Operational cost should be less than 100,000 € per year.

- We need a prototype as soon as possible to get customer feedback afterwards
- We have to agree on the site, the process and the IT in 4 weeks. No more changes after that!
- Training courses have to ready at the end of the project 1 week before the start of operations.
- The Project Manager will report directly to the board. Necessary resources (experts) should be made available by the divisions.

## 1. Requirements

Check the following requirements. Do they qualify as “good” requirements? Do they contain all the necessary information? Explain, what is missing (if something is missing).

- The solution should look nice.
- The process shouldn't last longer than 30 seconds (for the PAX).
- A corelation between false-positive rates and the system load as defined as amount of PAX per time multiplied by a group- & destination-specific factor should be considered for the further design of the system.
- The working environment should be quiet.
- The announcement should be clearly and at least 90 dB loud.

(10 points)

## 2. Project Agreement

Formulate and/or draw a project agreement for the above mentioned project.

(15 points)

## 3. Project Organisation

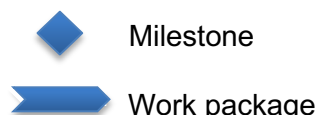
There are three basic types of project organization (Coordination, Matrix, Pure project structure). Choose the most suitable type for the above mentioned project and explain/ justify Your choice. Draw the extended company organizational chart with the project.

(15 points)

## 4. GANT-Chart, Milestones and Critical Path

Please construct a GANT-chart based on the information of the above mentioned project. You'll have to estimate the duration of some work packages and may add work packages which are not mentioned above, but necessary for logical reasons. Insert at least 4 milestones and highlight the Critical Path.

Use the following notation:



(20 points)

*Good luck !*