

Project Description

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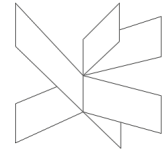
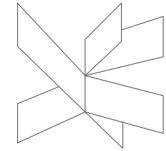


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1. Background description

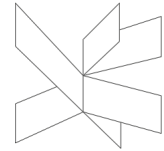
According to The World Bank (2016), in the second half of the 20th century air transportation began to grow rapidly. In the period* from 2000 to 2016, the number of passengers carried increased by 120% (1,674 billion to 3,696 billion passengers carried per year). Statistics forecasts an increase in demand for passenger transportation. The current systems are not maintainable as the stream of passengers is growing. In this case, there will be a need for a new system to handle the current growth.

A business with the name of Arkia Israeli Airlines operates scheduled flights, linking several cities from Israel as well as charter flights to some European destinations. Similar to Zair, AIA had problems with managing bookings, as they had a manual management system, which often included issues such as double-booking and the inability to relate outbound and inbound flights of specific passengers. By developing their own tailored management system, called AMSYS, they managed to not only solve their problems, but also introduce custom features, their own security measures, improve their ticket revenue, it being the main source of income, and reduce costs compared to buying a generic system from other companies and as stated by Arkia Israeli Airlines (1988).

Zair is an upcoming airline business that runs on a system that it uses from the startup. Zair has its head office in Horsens, currently managing direct flights all over Europe and looking forward to expanding to other continents. Some services that it provides are booking flights, seat reservation, providing the cheapest tickets for frequent travelers, account system etc. With the present growth of the market, the current system is lacking in fulfilling the needs of the growing company.

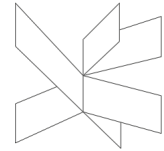
The airline business looks forward to improving their system, so they can expand to other continents and gain a loyal following of customers while keeping its initial features of travelers get their satisfaction and low prices.

Project Description



2. Definition of purpose

The purpose of the project is to help Zair manage their bookings in a more efficient manner and create an interface that attracts frequent travelers.

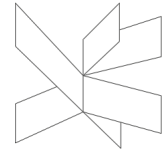


3. Problem Statement

The project focus is to create a system responsible for keeping track of reservations, prices and customers.

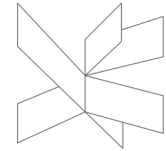
The questions to be answered are the following:

1. How can we make sure that double bookings and over-bookings are not going to happen?
2. What are we going to store regarding customer's personal data?
3. What will make a list of cheap flights?



4. Delimitation

- The system will not sell the tickets and will not manage the payments for Zair
- Standard seats for each flight
- The system will not handle security issues



5. Choice of models and methods

The project will be built upon the use of SCRUM and UP.

Scrum is a framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value, according to Scrum.org (2018). This model will help in collaborating, dealing with unpredictability and solving complex problems to obtain the final product.

As documented by techopedia.com (2018) unified process is a refinement of rational unified process. It is an extensible framework that can be customized for specific projects.

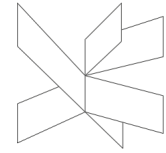
This process divides the development process into four phases:

- Inception
- Elaboration
- Conception
- Transition

Using both, it will ensure the detailed documentation of how the problem was approached and solved and a methodology to follow while working.

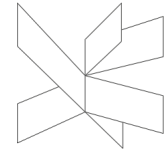
6. Time schedule

10 ECTS = 275 Hours per Student
1100 hours in total (4 students)



7. Risk assessment

Risks	Description	Likelihood	Severity	Risk mitigation e.g. Preventive & Responsive actions	Identifiers	Responsible
		Scale 1-5 5 = high risk	Scale 1-5 5 = high risk			
Risk not to meet the requirements	Lack of time, poorly made schedule, insufficient knowledge;	2	5	Preventive: Proper management of the requirements; Respect the schedule; Responsive: Accomplish what was agreed on;	Being behind the schedule;	Claudiu
Technical issues	Software crashes, broken computers, unsaved files;	2	5	Preventive: Having everything backed up on GitHub; Responsive: Restore data from GitHub;	Corrupt data;	Claudiu
Injuries or illness	Seasonal viruses, bicycle accidents;	3	2	Responsive: Work from home;		Dominika
Insufficient knowledge in software development	Lack of knowledge in databases;	2	4	Preventive: Read additional materials and keep up with class exercises;		Tudor
Group conflicts	Fights and disagreements between members;	1	4	Preventive: Follow Group Contract; Responsive: Try to compromise;		Nikita



8. Sources of Information

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