



SKYSCANNER
IN COLLABORATION WITH
UNIVERSITAT POLITÈCNICA DE CATALUNYA (UPC)

FINAL DEGREE PROJECT

Skyscanner Heatmap

Skyscanner's data domain representation

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A Project for the Computer Engineering Degree in the
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working with
DeLorean squad *from* Marketplace Engine tribe

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Abstract

Facultat d'Informàtica de Barcelona (FIB)
Software Engineering and Information Systems department

Computer Engineering Degree

Skyscanner Heatmap

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In the last century, the world has become smaller. Communications are easier and faster than fifty years ago. Back then, you could talk through a fix phone, but you were not able to send any kind of media, like photos, videos, etc. Only the latest technology of that moment was able to do that. Since the smart phone revolution in 2007 almost everyone can text messages, sending images, share live videos or almost whatever you can imagine in less than a second.

But the internet, phones and communications are not the only thing that made the world smaller. Ways of traveling helped to this earth flattening too. In 1918 visiting another place was very difficult. If you wanted to go through the sea, you had to do it by boat. The fastest way to travel very far in a continent was by train, but not all places were connected with rails. Nowadays, all along with the internet revolution, anyone can travel to the other side of the world in less than a day by plane. Even for traveling inside the same country people use planes.

Is the air industry as efficient as it could? Are all airplane users satisfied with their purchases and possibilities? Skyscanner provides an easy to use tool to search cheap flights from any airport to another. Sadly, user does not always find what he/she wants, not because Skyscanner does not provide all the information. Some routes between two airports do not exist, even people search for them a lot. Some flights are too busy and very expensive.

This project wants to help solving this problem providing a heat map to explore differences and similarities between what users search, finds and actually buys and what airlines provides. Being able to compare between specific dates to guess user behavior; compare two airports or cities to invest in airports that are growing faster and have more future expectations, etc.

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Chapter 1

Introduction

This is a project developed in *Skyscanner* and evaluated by the *Universitat Politècnica de Catalunya (UPC)* as a Final Degree Project. The main goal is creating a tool for *Skyscanner* providers to ease the comparison of flights by different parameters, so then the flights scheduling is improved according to user demand. Also being programmer oriented, so the company can develop complex software from the Application Program Interface provided.

1.1 Context

1.1.1 Economy

1.1.2 Evolution

1.1.3 Complexity

1.2 Motivation

1.3 Vision

Chapter 2

Market

Chapter 3

Project scope

3.1 Objectives

3.2 Scope

3.2.1 Data warehouse

3.2.2 Visual representation

3.2.3 Other applications

3.3 Risks

3.4 Methodology

3.4.1 Tribes and Squads

3.4.2 Agile

3.4.3 GitLab

3.4.4 Jira

3.4.5 Other tools

Chapter 4

Requirements analysis

4.1 Actors

Initially it seemed difficult to find stakeholders and actors in these project apart from the providers. It is not a tool for the user of Skyscanner so, as explained before, one risk of these project was not finding enough support.

After walking with the Squad Lead and then the Product Own of DeLorean squad a lot of stakeholders appeared: DeLorean Squad, Marketing Automation Squad, State Machine Squad, etc. Each of these stakeholders has different use cases and the project became very interesting for a considerable part of Skyscanner'

4.2 Functional requirements

4.2.1 Product Owner

4.2.2 Squad Lead

4.2.3 DeLorean Squad

4.2.4 Other Squads

4.2.5 Providers

4.2.6 Competitors

4.3 Non functional requirements

4.4 Use cases