## Airline Delays’ Analysis

Airline delays significantly impact travelers, airlines, and the broader aviation industry, causing inconvenience, financial losses, and operational inefficiencies. Understanding the factors contributing to these delays is crucial for improving customer satisfaction, optimizing airline operations, and minimizing economic costs.

This data challenge focuses on analyzing real-world flight data to uncover trends, identify key causes of delays, and propose actionable insights. Participants will work with dataset containing detailed information about flight carriers, delays, airport name, delay year, delay month and other relevant factors.  
 **About**

The FP20 Analytics Challenge 23 is brought to you in collaboration with ZoomCharts. Thanks to this partnership, we're integrating ZoomCharts' exceptional Power BI solutions into this competition. You will gain skills to create Pro reports that help business users explore data faster and more intuitively.

To participate in the challenge with ZoomCharts, [register here](https://zoomcharts.com/en/microsoft-power-bi-custom-visuals/challenges/fp20analytics-march-2024?utm_source=challenge&utm_medium=fp20analytics&utm_campaign=fp20analytics_web_march&utm_term=register&utm_content=registration) and create a Power BI report including at least 2 ZoomCharts Drill Down Visuals in one report page.

**Why participate in the Challenge with ZoomCharts?**

1. **Personalized feedback ️**  
   The ZoomCharts team provides personalized feedback to EVERY report entry that meets the requirements. This gives all participants the chance to hone their skills and adjust their report before deadline, giving you an extra competitive edge in the challenge.
2. **Receive a free license**  
   Upon signing up for the challenge, you will receive a FREE Drill Down Visuals Developers License that lets you access the full Drill Down Visuals PRO library.  
   This license remains active for a year after the last challenge you take part in. This means that you can access the latest advanced data visualization tools to enhance your projects for a full year.
3. **Learning resources**   
   Participants receive all the latest information on upcoming workshops and events where our team of proven professionals share their knowledge and tips on how to approach visualizing the given dataset for the challenge.  
   You also have the chance to book 1:1 calls with a Power BI mentor who will analyse your report and give specific suggestions to improve it.
4. **The main prize**   
   Last but not least, entering the challenge with ZoomCharts puts you in the running for an additional $300 Amazon gift card!

**Introduction**

Below is your show time. Read me carefully!

**Timeline**

Start: **Friday 17th of January 2025** at 15:00 pm UK time

Submission Deadline: **Friday 14th of February** at 11:59 pm UK time

Winners’ announcement: **Wednesday the 20th of February**

**Access to the LinkedIn Group and Forum**

**https://www.linkedin.com/groups/12751070/**  
  
**NovyPro:**  
**https://www.novypro.com/**  
  
**Instructions Video:**  
[**https://www.youtube.com/watch?v=jkcAYgFGWUY**](https://www.youtube.com/watch?v=jkcAYgFGWUY)

#### Questions:

#### What are the busiest months and airports for flights?

#### Which months experience the highest delay rates?

#### How do delay patterns vary across different airlines?

#### What are the primary causes of delays (e.g., carrier reasons, weather, late aircraft)?

#### Which airports are most affected by weather-related delays?

#### How do delays differ between peak and off-peak seasons?

#### Are there geographical patterns in delay occurrences (e.g., coastal vs. inland airports)?

#### Do certain regions experience higher delays due to weather conditions?

#### What percentage of total flights experience delays of over 15 minutes?

#### Are there airports or airlines with significantly better on-time performance?

#### **Technical Requirements**

* All tools are permitted for FP20 Analytics Challenge.
* For ZoomCharts Challenge: create a Power BI report including at least 2 ZoomCharts Drill Down Visuals in one report page.
* Reports are restricted to a maximum of 3 pages.
* Canvas size is 16:9 (Default Power BI size) or Full HD size = w:1920 - h:1080.

##### **Judging Criteria**

Business users use reports to make data-driven decisions. That’s why reports are called effective if they enable users to drill down and filter data quickly and intuitively to find answers to any question they might have and analyse data in all possible directions and dimensions. We will evaluate:

**1) How easy is it to understand the data? (max 10 points)**

* Is too much text used for explanation?
* Are the indicative colours in charts instinctually understandable?
* Does it tell a story?

**2) How easy-to-use is the report? (max 14 points)**

* Cross-chart filtering implementation across the report. Can other visuals provide relevant data as the user explores the report?
* Response time
* Drill Down: multi-layer data exploration. Can the user drill down and gain additional insights within the report?
* Use of tutorial overlays and other elements to assist new users. Can a new user start using this report straight away with just the guidance provided within the report itself?

**3) How good is the report design and is it suitable for its purpose? (max 10 points)**

* Visual design: is the overall look consistent, no empty spaces, no overcrowding?
* Interface design: are there unnecessary visualisations/buttons/complexity in use?
* UX design: is the produced report usable?
* Report design: is the main challenge answered?
* Technical: are all the fonts used the same, are the sizes readable?

You are encouraged to use various techniques at your disposal, such as tooltips, drill-throughs, drill-downs, cross-chart filtering and page navigation features, to enhance your analysis.

### **Zoomcharts Resources.**

Resources that will inspire you to master Power BI reports that end-users will love:

1. [Use-Case Gallery](https://zoomcharts.com/en/microsoft-power-bi-custom-visuals/dashboard-and-report-examples/?utm_source=challenge&utm_medium=fp20analytics&utm_campaign=fp20analytics_web_march_2024&utm_term=resources&utm_content=use-case_gallery): Try live demos and download reports made by the ZoomCharts team

2. [Video tutorials](https://academy.zoomcharts.com/?utm_source=challenge&utm_medium=fp20analytics&utm_campaign=fp20analytics_web_march_2024&utm_term=resources&utm_content=video_tutorials): Watch engaging video guides on how to set up and use the visuals

3. [Documentation](https://zoomcharts.com/en/microsoft-power-bi-custom-visuals/documentation/general/getting-started/?utm_source=challenge&utm_medium=fp20analytics&utm_campaign=fp20analytics_web_march_2024&utm_term=resources&utm_content=documentation): Technical deep-dive about ZoomCharts visuals

4. [ZoomCharts Blog](https://zoomcharts.com/en/microsoft-power-bi-custom-visuals/blog/?utm_source=challenge&utm_medium=fp20analytics&utm_campaign=fp20analytics_web_march_2024&utm_term=resources&utm_content=blog): Useful tips & tricks for data visualization and report creation

5. [Visuals Gallery](https://zoomcharts.com/en/microsoft-power-bi-custom-visuals/gallery/?utm_source=challenge&utm_medium=fp20analytics&utm_campaign=fp20analytics_web_march_2024&utm_term=resources&utm_content=visuals_gallery): Explore all the possible customization options for Drill Down Visuals.

### **Submissions of Entries.**

**\*IMPORTANT\***

To submit your two-page report, please follow these steps, if you want to be considered for the Zoomcharts' prize, otherwise post your entry in the challenges group.

### **1.**[**Submit your entry .pbix file here.**](https://zoomcharts.com/en/microsoft-power-bi-custom-visuals/challenges/fp20analytics-march-2024?utm_source=challenge&utm_medium=fp20analytics&utm_campaign=fp20analytics_web_march&utm_term=register&utm_content=registration) Your report will undergo validation to ensure it meets all the technical requirements. If the report is valid, you will receive a 'Publish to Web' link. If it does not meet the requirements, you will receive a rejection reason and will have the opportunity to resubmit your report.

### **2. Post your submission on LinkedIn:**

1. Upload the report as a PDF document on your LinkedIn feed.

2. Use the caption "I am participating in FP20 Analytics Challenge 23” and screenshots from your report.  
  
3. Post your report in [the FP20 Analytics LinkedIn Community Group.](https://www.linkedin.com/groups/12751070/)

4. Include a summary of your report's key insights and publish it on the web or via a NovyPro link.

5. Use the hashtags #FP20Analytics, #FP20ChristmasSalesTrendAnalysis, #FP20AirlineDelaysAnalysis, tag @FP20 Analytics Challenges Group @Federico Pastor and @Zoomcharts.  
  
\*Any questions, please post them in the challenges group; a member of the team will get back to you ASAP. Please do not send challenge questions via private messages to the members of the team, these will not be answered.