## Inventory Management Analysis

Welcome to the Inventory Management Challenge! Efficient inventory management is crucial for balancing supply and demand while minimising costs. This challenge explores key aspects such as stock levels, supplier performance, warehouse utilisation, and reorder strategies. By analysing this dataset, you will identify trends, optimise restocking, and assess cost efficiency. Your goal is to uncover actionable insights that enhance inventory operations and decision-making. Use statistical techniques, visualisation tools and storytelling to support your findings. Can you optimise inventory performance and improve supply chain efficiency? Let’s dive in and explore the data!  
**About**

The FP20 Analytics Challenge 25 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 personalised feedback to EVERY report entry that meets the requirements. This allows all participants to hone their skills and adjust their reports before the 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 to access the entire Drill Down Visuals PRO library.  
   This license remains active for a year after the last challenge you take part in. This means you can access the latest advanced data visualisation tools to enhance your projects for a year.
3. **Learning resources**   
   Participants receive all the latest information on upcoming workshops and events, where our team of proven professionals shares their knowledge and tips on visualising the given dataset for the challenge.  
   You can also book 1:1 calls with a Power BI mentor, who will analyse your report and give specific suggestions for improving 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: **Wednesday the 26th of March 2025** at 3:00 pm UK time

Submission Deadline: **Wednesday** **the 23rd of April 2025** at 11:59 pm UK time

Workshop: **Wednesday** **the 3rd of April 2025** at 2:00 pm UK time

Winners’ announcement: **Tuesday the 29th of April 2025** at 2:00 pm UK time

**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:**

#### **Stock Analysis & Inventory Levels**

#### Which product category has the highest total stock quantity across all products?

#### How many products currently have stock quantities below their reorder point?

#### What minimum order quantity is required for a company to restock all products below the reorder point?

#### **Supplier & Restocking Performance**

#### Which supplier has the highest average lead time for restocking?

#### What is the average time since the last restock for products marked as "Out of Stock"?

#### Identify the months when the highest number of products were restocked—are there any seasonal trends?

#### **Cost & Pricing Analysis**

#### Identify the top 5 most expensive products (by unit price) and their categories.

#### Which product category has the fastest turnover based on stock quantity and lead time?

#### **Warehouse & Geographic Insights**

#### Which warehouse location has the highest number of products stored?

#### Which country has the most stocked items, and which top 3 counties have the highest stocked quantities by different product categories?

#### **Technical Requirements**

* All tools are permitted for the FP20 Analytics Challenge.
* For the ZoomCharts Challenge, create a Power BI report that includes at least 2 ZoomCharts Drill Down Visuals on one report page.
* Reports are restricted to a maximum of two 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 effective if they enable users to drill down and filter data quickly and intuitively to find answers to any question 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 immediately with just the guidance provided within the report itself?

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

* Visual design: is the overall look consistent, with no empty spaces and 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, and are the sizes readable?

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

### **Resources.**

1. Excel Spreadsheet with dataset and data dictionary.

2. PDF with the Intro and Brief in English.

3. PDF with the Intro and Brief in Spanish.

### **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 visualisation 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 customisation options for Drill Down Visuals.

### **Submissions of Entries.**

**\*IMPORTANT\***

Please follow these steps to submit your three-page report to be considered for the Zoomcharts prize; otherwise, post your entry in the challenge 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. You will receive a 'Publish to Web' link if the report is valid. 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 25” and screenshots from your report.

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

4. Use the hashtags #FP20Analytics, #FP20InventoryManagementAnalysis, #builtwithzoomcharts, tag @Federico Pastor and @Zoomcharts.

5. Post your report in [the FP20 Analytics LinkedIn Community Group.](https://www.linkedin.com/groups/12751070/)

### **Dataset.**

### **Click on the link below to get your dataset. The files contain all the necessary data and information to create your report.**

### **Dataset** **Intro & Brief in English** **Intro & Brief Español**

\*If you have 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 team members; these will not be answered.