

Create a Dashboard

Meeting Business

Requirements

Data Analyst,
Lenara Sitshayeva



Dental Pharma

Dental Pharma, Inc., a company that manufactures and markets pharmaceutical products, particularly for dental use.

Dental Pharma, Inc. has a global presence, and the management wants to standardize the monitoring of various projects within the company.

Task 1: Review the Data

Years

2017 - 2018

Regions

- Asia Pacific;
- Central/ Eastern Europe;
- North and Latin America;
- Western Europe

Country Types

- Affiliate
- Distributor

52 countries

- Albania
- Belarus
- Belgium
- Benin
- Brazil
- Burkina Faso
- Canada
- China
- Colombia
- Cote d'Ivoire

- Croatia
- Czech Republic
- Denmark
- Ecuador
- Egypt
- Estonia
- France
- Gabon
- Gambia
- Germany

- Greece
- Holland
- Hungary
- Indonesia
- Israel
- Italy
- Japan
- Jordan
- La Reunion
- Lebanon
- Lithuania

- Luxembourg
- Macedonia
- Malaysia
- Malta
- Mauritius
- Niger
- Norway
- Poland
- Portugal
- Russia
- Senegal

- Serbia
- Slovakia
- Slovenia
- South Africa
- Spain
- Sweden
- Switzerland
- Togo
- Turkey
- Ukraine

Task 1: Review the Data

Data users

- General Manager
- Regional Manager
- Country Manager



Phases of CRM Implementation

- Development;
- Initiation;
- Post deployment;
- Preparation;
- Testing

Phases of New product Implementation

- Phase 1 - Planning;
- Phase 2 - Initiation;
- Phase 3 - Implementation;
- Phase 4 - Manufacturing

Task 2: Map Out Dashboard

Dashboard Goal	Dashboard Users	Dashboard KPI's	Dashboard Metrics
<p>What's the goal of the Dashboard?</p> <div><div>Need to filter by regions, countries</div><div>Need to filter by country's types</div><div>Need to filter by project's types</div><div>Need to see phase a project is in</div><div>Need to be able to create own threshold</div><div>Need to monitor the projects performance</div><div>Need to see project start date</div><div>Need to make data accessible / interpretable to managers</div><div>Provide projects performance over time</div><div>Identify countries that have target values of KPIs</div></div>	<p>Who will use the Dashboard?</p> <div><div>General Manager</div><div>Regional Manager</div><div>Country Manager</div></div>	<p>What KPIs will be tracked?</p> <div><div>Planned Project budget / cost</div><div>Actual Project budget / cost</div><div>Planned Project deadline / duration</div><div>Actual Project deadline / duration</div><div>Planned Project deliverable / under delivering</div><div>Actual Project deliverable / under delivering</div></div>	<p>Which metrics should be included?</p> <div><div>Average project planned cost</div><div>Average project actual cost</div><div>Average project planned duration</div><div>Average project actual duration</div><div>Percentage over cost</div><div>Percentage over duration</div><div>Percentage under delivering</div></div>

Task 2: Map Out Dashboard



Dashboard Blueprint

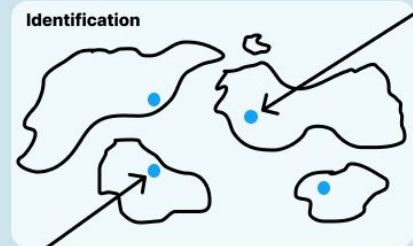
The table below captures the essential details that are needed for the dashboard.

- **Business Requirements:** This was already completed at the end of the meeting with Sophie.
- **User Needs:** This briefly describes the interactions the users will have with the data for this requirement (e.g., what filters are needed).
- **Specific Metrics to Use:** This lists the metrics and any calculated metrics that will be used for this requirement (e.g. Actual Cost).
- **Visualisation:** The type of visualisation that could be used for this requirement (e.g. Bar Chart).

Business Requirements	User Needs	Specific Metrics to Use	Visualization
1. Show which projects are running/have run in which countries.	<ul style="list-style-type: none"> • Ability to filter by regions; • Ability to filter by countries; • Ability to view average measures of projects performance (cost, duration, deliverable) 	<ul style="list-style-type: none"> • Average Percentage of Projects Over Budget; • Average Percentage of Projects Over Duration; • Average Percentage of Projects Under delivered; • Number of Projects 	Interactive Map
2. Identify countries with a 15% difference between <i>actual costs</i> versus <i>target cost</i> . This difference should be adjustable by the user.	<ul style="list-style-type: none"> • Ability to zoom in on (filter on) a specific country or region • Ability to input a certain threshold 	Percentage over budget (computed from actual cost-planned cost)	Bar chart
3. Identify countries with a 15% difference between <i>actual duration</i> versus <i>target duration</i> . This difference should be adjustable by the user.	<ul style="list-style-type: none"> • Ability to zoom in on (filter on) a specific country or region • Ability to input a certain threshold 	Percentage over duration (computed from actual duration-planned duration)	Bar chart

4. Identify countries with a 15% difference between <i>actual deliverable</i> versus <i>target deliverable</i> . This difference should be adjustable by the user.	<ul style="list-style-type: none"> • Ability to zoom in on (filter on) a specific country or region • Ability to input a certain threshold 	Percentage over duration (computed from actual deliverable -planned deliverable)	Bar chart
5. Show the performance of the projects over time.	<ul style="list-style-type: none"> • Ability to filter by regions; • Ability to filter by countries; • Ability to view average measures of projects performance (cost, duration, deliverable) 	<ul style="list-style-type: none"> • Average actual cost; • Average planned cost; • Average actual duration; • Average planned duration; 	Bar chart
6. For external stakeholders, show the duration of projects by country and phase.	<ul style="list-style-type: none"> • Ability to zoom in on (filter on) a specific country or region • Ability to input a certain threshold 	<ul style="list-style-type: none"> • Average actual duration; • Average planned duration; 	Bar chart

Dental Pharma. Inc.

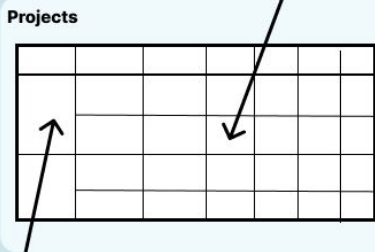


Name of Country

By clicking on Name of Country
User can see Projects KPIs like

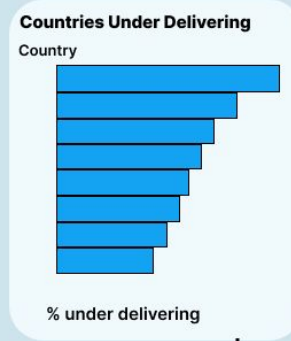
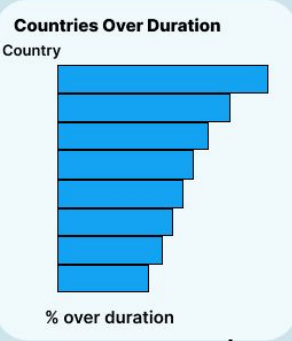
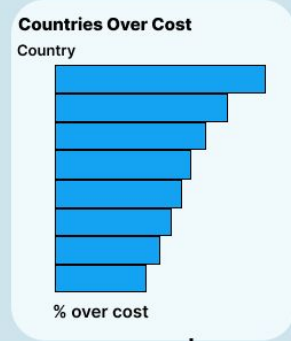
- Avg. % Over Cost
- Avg. % Over Duration
- Avg. % Under Delivering
- Number of Projects

User has ability to zoom into map



Planned and Actual Cost, Planned and Actual Duration

Projects KPIs by regions, countries, country's types, projects types, phases, quarters of start date



Values sorted by the most over.

User can filter Values by filters: regions, countries, % over cost, % over duration, % under delivering

Filters

Region

- ☐ All
- ☐ Eastern Europe/Middle East/Africa
- ☐ Western Europe
- ☐ Asia Pacific
- ☐ Latin America/Canada

Country

- ☐ All
- ☐ Albania
- ☐ Belgium
- ☐ Brazil
- ☐ Canada
- ☐ China
- ☐ Colombia
- ☐ Denmark
- ☐ France
- ☐ Germany
- ☐ Holland

Country type

- ☐ All
- ☐ Affiliate
- ☐ Distributor

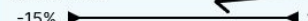
Project type

- ☐ All
- ☐ IT-CRM Implementation
- ☐ Marketing - Launch of new product


Quarter (Project Start Date)

- ☐ All
- ☐ Q1
- ☐ Q2
- ☐ Q3
- ☐ Q4


% over cost

-15%  15%

% over duration

-15%  15%

% under delivering

-15%  15%

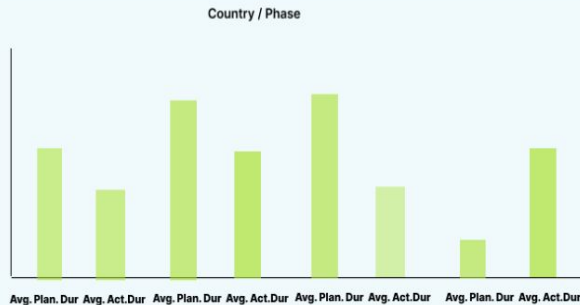
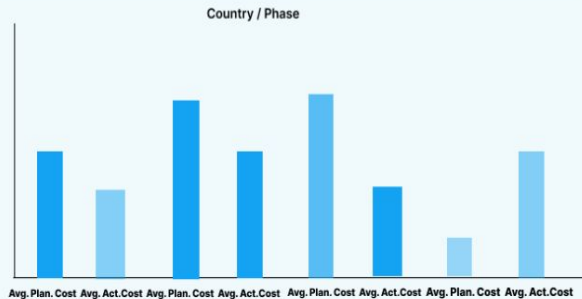
User can filter by selecting checkboxes projects over regions, countries, country types, project types, quarters of project's start date.

User can filter by adjusting thresholds projects over percentage over cost, percentage over duration, percentage under delivering

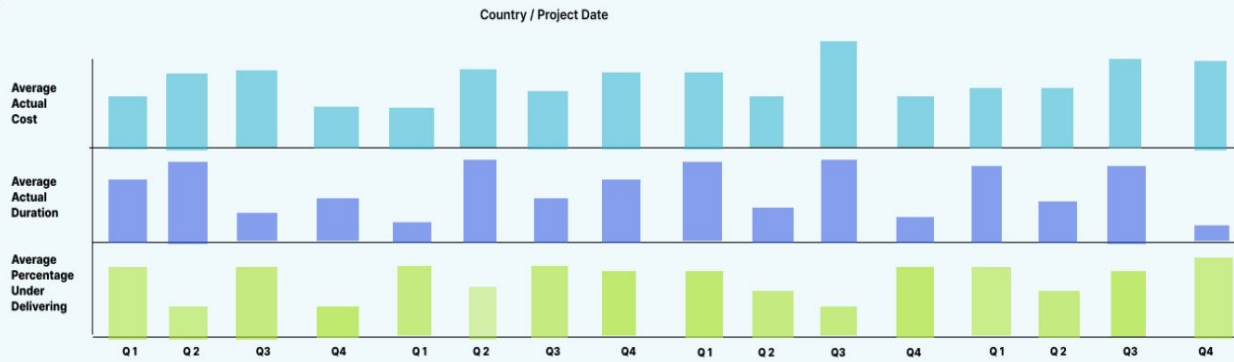
Dental Pharma, Inc.

Average actual and planned cost by countries and phases

Average actual and planned duration by countries and phases



Projects performance over time



Filters

Region

- All
- Eastern Europe/Middle East/Africa
- Western Europe
- Asia Pacific
- Latin America/Canada

Country

- All
- Albania
- Belgium
- Brazil
- Canada
- China
- Colombia
- Denmark
- France
- Germany
- Holland

Project type

- All
- IT-CRM Implementation
- Marketing - Launch of new product

Quarter (Project Start Date)

- All
- Q1
- Q2
- Q3
- Q4

Project Phase

- All
- Development
- Initiation
- Preparation
- Testing

User can filter by selecting checkboxes projects over regions, countries, project types, quarters of project's start date and phases

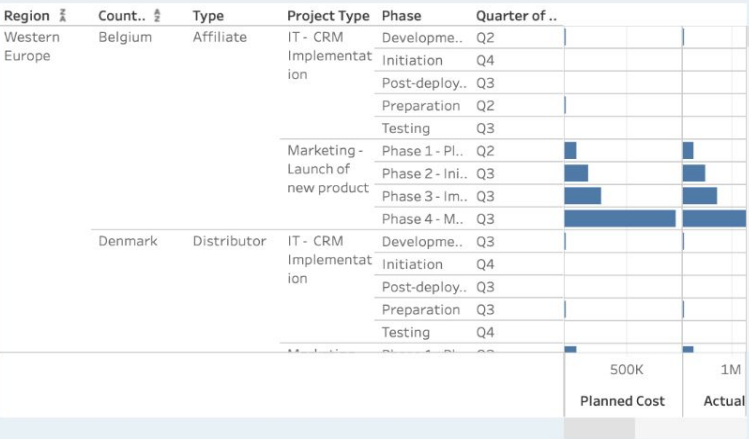
Task 3: Select Tool and Start Creating Dashboard

Dental Pharma, Inc.

Identification

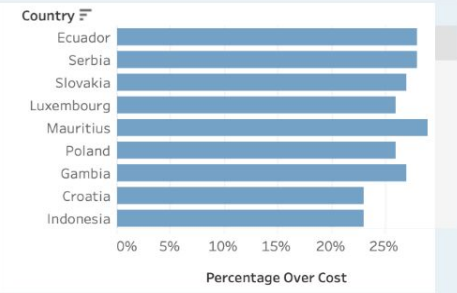


Projects

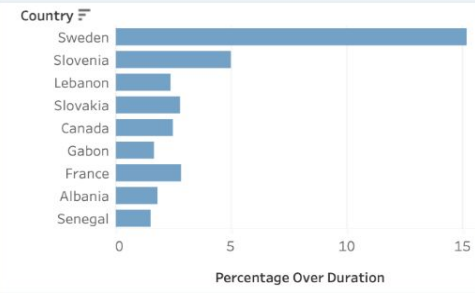


- Region**
 - ☒ (All)
 - ☒ Asia Pacific
 - ☒ Central/Eastern Europe-Middle East-Africa
 - ☒ North and Latin America
 - ☒ Western Europe
- Country**
 - ☒ (All)
 - ☒ Albania
 - ☒ Belarus
 - ☒ Belgium
 - ☒ Benin
- Country Type**
 - ☒ (All)
 - ☒ Affiliate
 - ☒ Distributor
- Project Type**
 - ☒ (All)
 - ☒ IT - CRM Implementation
 - ☒ Marketing - Launch of new product

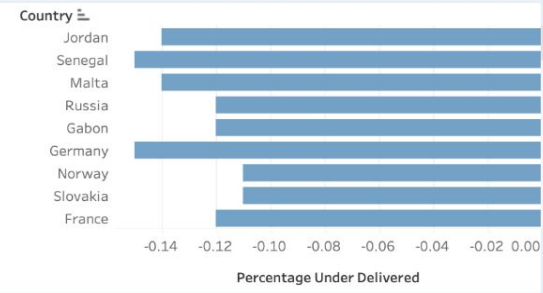
Countries Over Cost



Countries Over Duration



Countries Under Delivering



- Quarter of Project Start Date**
 - ☒ (All)
 - ☒ Q1
 - ☒ Q2
 - ☒ Q3
 - ☒ Q4
- % Over Cost**

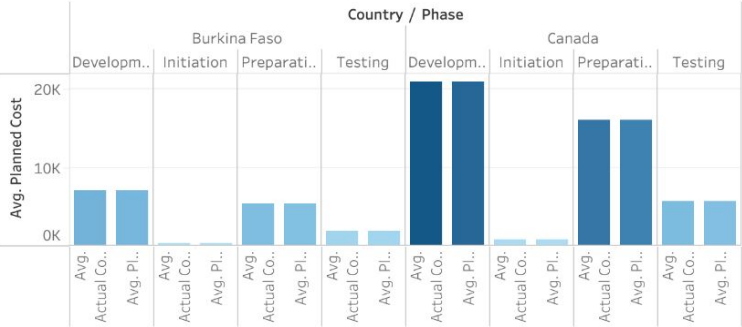
-10% 30%
- % Over Duration**

-0.34 15.20
- % Under Delivered**

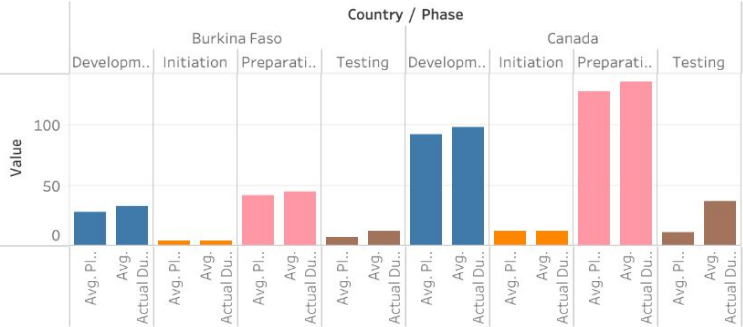
-11.00 0.00

Dental Pharma, Inc.

Average actual and planned cost by countries and phases



Average actual and planned duration by countries and phases



- Region**
- ☒ (All)
 - ☒ Asia Pacific
 - ☒ Central/Eastern Europe-Middle East-Africa
 - ☒ North and Latin America
 - ☒ Western Europe

- Country**
- ☐ (All)
 - ☐ Albania
 - ☐ Belarus
 - ☐ Belgium
 - ☐ Benin
 - ☐ Brazil
 - ☒ Burkina Faso
 - ☒ Canada
 - ☐ China
 - ☐ Colombia

- Quarter of Project Date**
- ☒ (All)
 - ☒ Q1
 - ☒ Q2
 - ☒ Q3
 - ☒ Q4

- Project Type**
- ☐ (All)
 - ☒ IT - CRM Implementation
 - ☐ Marketing - Launch of new product

- Phase**
- ☒ Development
 - ☐ Initiation
 - ☐ Preparation
 - ☐ Testing

Projects performance over time



LIFECYCLE

**What activities would you need to do before undertaking this project?
Think about where the data came from.**

The ultimate purpose of a dashboard is to present data in a clear and approachable way that facilitates the decision-making process for its users. Data for this project was provided by Dental Pharma. The purpose of this project is to track Dental Pharma project's key performance indicators (KPIs) and progress towards established targets.

The type of dashboard for this project is strategic. After collecting the data, it is important to discover each dataset. This step is about getting to know the data and understanding what has to be done before the data becomes useful in a particular context. Next activity is cleaning data.

LIFECYCLE

Cleaning up the data is traditionally the most time-consuming part of the data preparation process, but it's crucial for removing faulty data and filling in gaps. Important tasks here include:

- Removing extraneous data and outliers
- Filling in missing values
- Conforming data to a standardised pattern
- Masking private or sensitive data entries

What would you need to do if the data changed?

If the data source has been modified, we can immediately update Tableau Project Workbook with the changes by selecting a data source on the Data menu and then selecting Refresh.

LIFECYCLE

Which aspects of the data analysis lifecycle are you primarily involved with in this project?

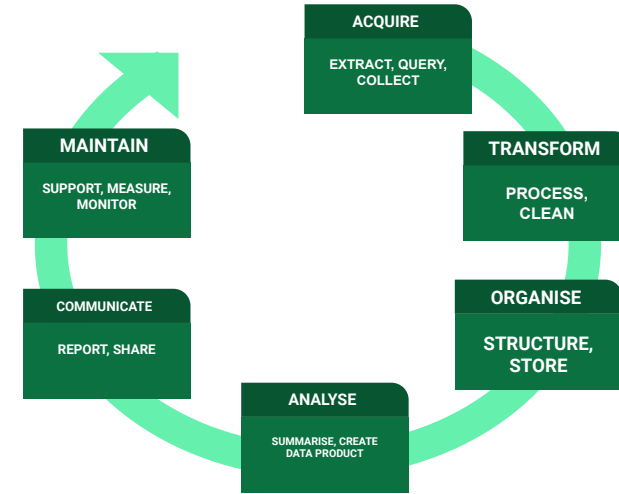
In this project we are involved in three stages of **Data Analysis LifeCycle**:

- *Analyse (create data product),*
- *Communicate (report and share),*
- *Maintain (support and monitor).*

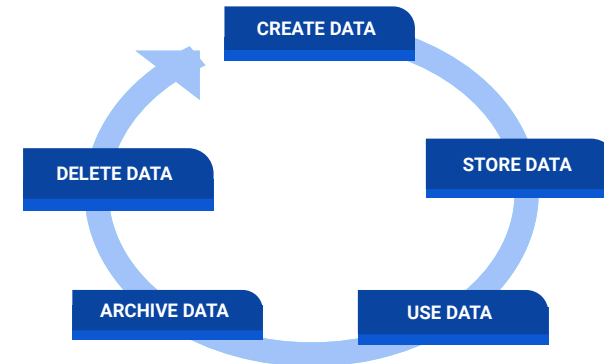
How does this project fit into a broader data lifecycle?

This project fits into the use data stage of Data LifeCycle. We use data as source for analysis, for creating charts and dashboards in order to monitor Dental Pharma's projects KPIs.

Data Analysis LifeCycle



Data LifeCycle



REQUIREMENTS

Summarise the process you used from the business requirements to a clear design for your dashboard.

In order to prepare a clear design for dashboard we gathered information about project requirements. Then we determined the purpose of the dashboard and the users of the dashboard. We created Dashboard Blueprint. Then we framed and prioritized Dashboard goals. We created Dashboard Mockup, and ask for feedback and iterated stages as needed.

How would you make sure this design actually met the needs of the business?

After we created Dashboard Blueprint and Mockup, we asked for feedback from client and iterated stages as needed. It's important to ensure that stakeholders have a chance to provide feedback throughout the process of creating a dashboard.

REQUIREMENTS

What other techniques could you use to make the design clearer?

- Consider your audience
- Determine your goals
- Choose relevant KPIs
- Tell a story with your data
- Provide context
- Don't try to place all the information on the same page
- Select the right type of dashboard
- Use the right chart type
- Choose your layout carefully
- Prioritize simplicity
- Round your numbers
- Be careful with colors
- Don't go over the top with real-time data
- Be consistent with labeling and formatting
- Use interactive elements
- Use animation options
- Double up your margins
- Optimize for multiple devices
- Consider the use in terms of export vs, digital
- Keep graphical integrity
- White label and embed if you need to
- Avoid common visualization mistakes
- Keep evolving