**Power BI Project Solution**

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|  | **About Dataset** |
|  | Chinnokcorp is a company which sells music of different genres by its employees whose details are stored in the given dataset. The dataset includes various employee & customer attributes. Employee attributes such as employee\_id, first\_name, last\_name, title, reports\_to, birthdate, hire\_date, address, city, state, country, postal\_code, phone, fax, email.  Customer attributes such as first\_name, last\_name, company, billing\_address, billing\_city, billing\_state, billing\_country, billing\_postal\_code, phone, fax, email, total, support\_rep\_id(employee\_id), invoice\_id, invoice\_date, trackid, name, unit\_price, quantity, album\_id, title, artist\_id, name, media\_type\_id, name,  genre\_id, name, playlist, name, composer, milliseconds, bytes.  With this information, Chinnokcorp can track and manage their sales & workforce effectively. |
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|  | **DATA SET** |
|  | We have chosen an Music dataset with 50 columns and 623 rows to create a Power BI dashboard report that will be optimized for performance and user readability. The dataset contains important Music-related information such as employees of chinookcorp & their customer data. |
|  | **PROJECT TASKS** |
| **A** | **Installation** |
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| **Q** | Downloading **Power BI Desktop.** |
| 1 | [Go to https://powerbi.microsoft.com/en-us/desktop/ and select "Power BI Desktop" from the "Products" tab.](https://powerbi.microsoft.com/en-us/desktop/) |
| 2 | Go to the Power BI Desktop download page |
| 3 | Click "Download free" |
| 4 | Select your system version (32-bit or 64-bit) |
| 5 | Click "Download" |
| 6 | Locate the downloaded file in your downloads folder |
| 7 | Double-click to start the installation |
| 8 | Follow on-screen instructions |
| 9 | Launch Power BI Desktop from the desktop shortcut or the Windows Start menu. |
| Instruction: | Download and install Power BI Desktop from Instruction: Download and install Power BI Desktop from the official website and start exploring its features for creating impactful reports. |
| **B** | **Data Cleaning** |
| 1 | Actual Data |
| Hint | 11 tables named as employee, customer, invoice, invoice\_line, track, playlist\_track, playlist, album, artist, media\_type, genre. |
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| 2 | Renamed support\_rep\_id in customer table |
| Hint | Renamed to employee\_id based on schema\_diagram.  Utilize the "Rename Values" option in Power Query to edit . |
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| 3 | Renamed generic names ,title columns |
| Hint | Renamed to specific or corresponding names, title based on schema diagram  Utilize the "Rename Values" option in Power Query to edit . |
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| 4 | Demonstrate how tables are merged |
| Hint | Merge the 10 tables in Power Query using the "Merge Queries" option and match the tables on the common column attribute based in every table as per schema diagram. |
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| 5 | Show the number of duplicate values removed from the dataset using Power Query. |
| Hint | Use the "Remove Duplicates" option in Power Query to remove duplicate columns from the dataset. |
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| 6 | Final Data |
| Hint | 2 tables :- “employee” table &  “Merge customers to playlist,album,artist,media\_type,genre” table (10 tables merged into 1 based on common columns as per schema diagram.) |
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| **C** | **Data Model** |
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| 1 | Relationship between tables to create report |
| Hint | Check Data model for relationship.  Based on employee\_id common column attribute relationship between “employee” table & “Merge customers to playlist,album,artist,media\_type,genre” table is One to Many |
| **D** | **Visual Insights** |
| **Page 1** | **Music Store** |
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| 1 | What are the count of customer\_id, invoice\_id in the dataset? |
| Visual Used | New card visual. |
| Hint | This visual displays the count of employees in the form of a card. |
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| 2 | What are the first\_name & last\_name of the customers in the dataset? |
| Visual Used | New card visual. |
| Hint | This visual displays the first\_name & last\_name of the customers in the form of a card. |
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| 3 | What is the track\_name in the dataset? |
| Visual Used | New card visual. |
| Hint | This visual displays the track\_name in the form of a card. |
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| 4 | What is the count of total sales in the dataset? |
| Visual Used | New card visual. |
| Hint | This visual displays the count of total sales in the form of a card. |
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| 5 | Background of New card visuals? |
| Visual Used | Gifs    first\_name, last\_name, customer\_id, total sales  invoice\_id, track\_name |
| Hint | This visual displays the gifs used for New Card visuals background. |
| 5 | How does the total sales vary with employee\_id in the dataset? |
| Visual Used | Donut chart. |
| Hint | This visual displays the total sales wrt employee\_id (merge table) in the form of a donut chart. |
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| 6 | Employee Details of the Chinookcorp Company? |
| Visual Used | Drill through on above no 5 Donut chart visual to navigate to **Page 2 :- Employee Details.** |
| Hint | This visual displays -Invoice Details Sold by Employee\_id (Merge Table) in the form of matrix.  -Total Sales Number by Employee\_id (Merge Table) in the form of card visual.  -Employee details present in sales team by Employee\_id (Merge Table) in the form of table.  -Employee details of every employee present in the company by Employee\_id (Emp Table) in the from of table. |
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| 7 | How does the total sales vary with billing\_country in the dataset? |
| Visual Used | Slicer. |
| Hint | This visual displays a slicer to select a country and filter the total sales data accordingly. |
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| 8 | Customer Details of the Chinookcorp Company? |
| Visual Used | Drill through on above no 7 Slicer visual to navigate to **Page 3 :- Customer Details.** |
| Hint | This visual displays -First\_name, Last\_name, Total Sales, Billing\_Country, Max of Total, Min of Total in the form of new card visual depending on the Billing\_Country.  -Customer details as per Billing\_Country in the form of table.  -Invoice\_Id & Count by Billing\_Country in the form of matrix.  -Customer\_Id & Count by Billing\_Country in the form of matrix.  -Invoice Amount & Count by Billing\_Country in the form of matrix. |
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| 9 | How does the total sales vary with playlist\_name in the dataset? |
| Visual Used | Donut chart. |
| Hint | This visual displays the total sales wrt playlist\_name in the form of a donut chart. |
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| 10 | How does the total sales vary with media\_type\_name in the dataset? |
| Visual Used | Clustered Column bar chart. |
| Hint | This visual displays the count of total sales for each media\_type\_name in the form of a clustered column bar chart. |
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| 11 | What are the first\_name & last\_name of the customers in the dataset? |
| Visual | Matrix. |
| Hint | This visual displays first\_name & last\_name in the form of matrix. |
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| 12 | Customer\_id details in the dataset? |
| Visual | Matrix. |
| Hint | This visual displays customer\_id in the form of matrix. |
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| 13 | Invoice\_id details in the dataset? |
| Visual | Matrix. |
| Hint | This visual displays invoice\_id in the form of matrix. |
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| 14 | Track\_id & Track\_name details in the dataset? |
| Visual | Matrix. |
| Hint | This visual displays track\_id & track\_name in the form of matrix. |
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| 15 | Album\_id & Album\_title details in the dataset? |
| Visual | Matrix. |
| Hint | This visual displays album\_id & album\_title in the form of matrix. |
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| 16 | Artist\_id & Artist\_Name details in the dataset? |
| Visual | Matrix. |
| Hint | This visual displays artist\_id & artist\_name in the form of matrix. |
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| 17 | Invoice\_date details in the dataset? |
| Visual | Slicer. |
| Hint | This visual displays invoice\_date in the form of matrix. |
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| 17 | Genre\_id & Genre\_name details in the dataset? |
| Visual | Matrix. |
| Hint | This visual displays genre\_id & genre\_name in the form of matrix. |
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| 18 | Musical Image? |
| Visual | Image. |
| Hint | This visual displays musical theme in the form of image. |
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| 19 | How can you add the company name to the Power BI report? |
| Visual Used | Text Box |
| Hint | Use the text box visual , type the company name as the text. |
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| **E** | **Published Report** |
| 1 | Power BI reports can be published and shared with others, making it easy to collaborate and work with others on data analysis projects. |
| Hint | Power BI's ability to publish and share reports facilitate seamless collaboration and teamwork in data analysis projects. |