

POWER BI
PROJECT REPORT
(Project Semester January-April 2025)

POSHAN Tracker Dashboard using Power BI

Submitted by

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Programme and Section : B. Tech and K23MK

Course Code INT374

Under the Guidance of

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DECLARATION

I, Anshu Kumar, a student of B.Tech under the CSE Discipline at Lovely Professional University, Punjab, hereby declare that the project work entitled “POSHAN Tracker Interactive Dashboard using Power BI”, submitted in partial fulfilment of the course requirements, is the result of my own sincere and dedicated work.

This project involves data cleaning, transformation, visualization, and dashboard development using Microsoft Power BI. The content, visuals, DAX measures, and insights presented in this report are original and have been created by me. The work has not been copied from any unauthorized source.

All analysis and dashboard development have been carried out with honesty, responsibility, and academic integrity.

Date: 13-December-2025

Registration No: 12313070

Signature:

Name of the student: Anshu Kumar

CERTIFICATE

This is to certify that Anshu Kumar, bearing Registration No. 12313070, has successfully completed the INT374 project titled “POSHAN Tracker Dashboard using Power BI” under my guidance and supervision.

To the best of my knowledge, the present work is the result of his original effort, sincere study, and independent development. The project demonstrates a clear understanding of data analysis, visualization techniques, and dashboard development using Microsoft Power BI.

Signature and Name of the Supervisor

MS. Aashima

Assistant Professor, Discipline of CSE/IT

School of Computer Science and Engineering

Lovely Professional University

Phagwara, Punjab.

Date: 13-December-2025

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to all those who supported and guided me throughout the successful completion of this project titled “POSHAN Tracker Interactive Dashboard using Power BI.”

First and foremost, I extend my heartfelt thanks to Ms. Aashima for her valuable guidance, continuous support, and encouragement during the course of this project. Her insights and suggestions played a crucial role in shaping the overall structure and quality of the dashboard.

I am also thankful to Lovely Professional University, along with the faculty and staff of the Discipline of CSE/IT, for providing the necessary resources and a conducive learning environment that enabled me to work effectively on this project.

This project involved the use of Microsoft Power BI for data cleaning, transformation, modeling, and visualization. Through the use of Power Query, DAX measures, and interactive visuals, I was able to convert raw data into meaningful insights. Features such as slicers, filters, KPI cards, charts, and maps were implemented to enhance user interaction and analytical understanding.

Working on this project enhanced my understanding of data analytics, business intelligence, dashboard design, and data-driven decision making. It improved my ability to analyze datasets, create interactive dashboards, and present insights in a clear and visually effective manner.

The knowledge and practical experience gained through this project have significantly strengthened my skills in Power BI and data visualization, and will be valuable for my future academic and professional growth.

Anshu Kumar

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1. INTRODUCTION

This project focuses on the development of an interactive POSHAN Tracker dashboard using Microsoft Power BI. The primary objective of this project is to visualize, analyze, and monitor nutritional and health-related indicators of children and mothers across different regions in an effective and interactive manner.

As a B.Tech CSE student, I used Microsoft Power BI for data cleaning, transformation, modeling, and visualization. The dataset contains key information related to child nutrition, maternal health, Anganwadi center performance, regional coverage, and service indicators. These attributes help in understanding the implementation and progress of the Poshan Abhiyaan scheme across states and districts.

During the course of this project, the following key tasks were performed:

- Cleaning and transforming raw data using Power Query Editor
- Handling missing and inconsistent values
- Creating calculated columns and DAX measures
- Designing interactive visuals such as KPI cards, bar charts, column charts, donut charts, scatter plots, and maps
- Implementing slicers and filters for dynamic user interaction
- Developing a structured and user-friendly dashboard layout

From the dashboard analysis, several meaningful insights were derived, such as:

- Regional variations in child and maternal nutrition coverage
- Performance differences among Anganwadi centers across states
- Identification of high-performing and low-performing regions
- Gaps between current coverage and target values under Poshan Abhiyaan

This project enhanced my understanding of data analytics, business intelligence, and dashboard development using Power BI. It also strengthened my ability to work with real-world datasets, design interactive dashboards, and communicate insights clearly through data visualization for effective decision-making.

2. About The Dataset

The dataset used in this project is related to the POSHAN Tracker, which captures district-level information on child nutrition, maternal health, and Anganwadi center performance under the Poshan Abhiyaan scheme. The dataset provides structured data required for monitoring service delivery, infrastructure availability, and beneficiary coverage across different regions.

The dataset contains detailed attributes representing geographical information, beneficiary counts, infrastructure indicators, service delivery metrics, and verification details. This data is well-suited for building interactive dashboards and analytical reports using Power BI.

Key Features of the Dataset

Geographical Attributes

- State Name / State Code – Identifies the state
- District Name / District Code – Identifies the district
- Project and Sector – Administrative divisions under ICDS

Child Nutrition Indicators

- Children (0–6 months)
- Children (6 months–3 years)
- Children (3–6 years)
- Children attending Anganwadi Centers (21 days)
- Hot Cooked Meal (HCM) coverage indicators

Maternal Health Indicators

- Pregnant Women – Registered pregnant beneficiaries
- Lactating Mothers – Registered lactating beneficiaries
- Take Home Ration (THR) coverage indicators

Anganwadi Center Infrastructure Indicators

- Anganwadi Centers with Drinking Water Facility
- Anganwadi Centers with Functional Toilets
- Anganwadi Centers with Own Buildings

- Total Anganwadi Centers
- Centers operational for required number of days

Verification and Governance Indicators

- Aadhaar Verified Beneficiaries
- Eligible Beneficiaries
- Health ID Creation Status

Date Attribute

- Reporting Date – Used for monitoring and future time-based analysis

3. Data Preprocessing Requirements

Before creating visualizations in Power BI, the dataset required multiple preprocessing steps:

- Handling missing and inconsistent values
- Cleaning and standardizing column formats
- Removing duplicate or irrelevant records
- Creating calculated columns and measures
- Preparing data for state-wise and district-wise analysis

These steps were performed using Power Query Editor to convert the raw dataset into a clean and structured format suitable for dashboard development.

3.1 Purpose of the Dataset

This dataset helped in:

- Visualizing the nutritional status of children across regions
- Analyzing maternal health service coverage
- Evaluating Anganwadi center infrastructure and performance
- Comparing state-wise and district-wise progress under Poshan Abhiyaan
- Developing a monitoring-ready Power BI dashboard for future data updates

Source of Dataset:

https://indiadataportal.com/p/poshan-tracker/r/mowcd-poshan_statistics-dt-mn-aaa

4. Analysis on Dataset

4.1 Objective: To visualize the nutritional status of children across different regions

i. General Description

This objective focuses on understanding the nutritional coverage of children across various states and districts under the Poshan Abhiyaan scheme. By analyzing child beneficiary data, the dashboard helps identify regional differences in service delivery and nutritional reach.

ii. Specific Requirements

To achieve this objective, the following requirements were identified:

- Total number of children registered
- Child attendance and coverage for at least 21 days
- Region-wise (State and District) comparison
- Percentage-based indicators for better comparison

iii. Analysis Results

The analysis revealed that:

- Nutritional coverage of children varies significantly across states
- Some regions show high child coverage, while others lag behind
- Coverage percentage clearly highlights gaps in service delivery

These results help in identifying priority regions requiring immediate attention

iv. Visualization

The following visuals were used:

- KPI Cards: Total Children, Child Coverage %
- State-wise Child Coverage % Bar Chart
- District-wise Children Distribution Chart
- Map Visualization to show regional differences

4.2 Objective: To analyze the performance of Anganwadi Centers

i. General Description

This objective evaluates the performance of Anganwadi centers based on infrastructure availability, service delivery, and beneficiary verification. A combined performance view helps assess the effectiveness of implementation at the ground level.

ii. Specific Requirements

The analysis required:

- Infrastructure-related indicators
- Service delivery indicators
- Aadhaar verification data
- A combined performance metric (Performance Index)

iii. Analysis Results

The analysis showed that:

- Some states have strong infrastructure but weaker service delivery
- Aadhaar verification scores expose governance and monitoring gaps
- Performance Index helps clearly distinguish high and low-performing regions

iv. Visualization

The following visuals were created:

- KPI Cards: Infrastructure Score, Service Score, Verification Score, Performance Index
- State-wise and District-wise Performance Index Bar Charts
- Aadhaar Verification % Donut Chart
- Performance Index Map Visualization

4.3 Objective: To identify trends in maternal and child health indicators

i. General Description

This objective aims to analyze maternal and child health indicators to understand service uptake across regions. As the dataset did not include time-series data, a regional comparison approach was used instead of time-based trends.

ii. Specific Requirements

The analysis required:

- Data on pregnant women and lactating mothers
- Maternal and child coverage percentages
- Regional-level comparison

iii. Analysis Results

The analysis indicated that:

- Maternal health service uptake differs across states
- Regions with higher maternal coverage tend to show better child outcomes
- Imbalances in maternal services are clearly visible at the district level

iv. Visualization

The visuals used include:

- KPI Cards: Total Pregnant Women, Total Lactating Mothers, Maternal Coverage %
- Donut Chart: Pregnant vs Lactating Mothers
- State-wise Maternal Coverage % Column Chart
- District-level Drill-down Visuals

4.4 Objective: To compare state-wise progress under the Poshan Abhiyaan scheme

i. General Description

This objective compares state-wise progress to evaluate how effectively Poshan Abhiyaan is being implemented across regions. Performance and coverage indicators were used for comparative analysis.

ii. Specific Requirements

The analysis required:

- State-level performance indicators
- Ranking of states based on performance
- Comparative metrics for coverage and service quality

iii. Analysis Results

The comparison revealed that:

- Certain states consistently outperform others
- Some states show strong infrastructure but weaker service delivery
- Regional imbalance in progress is clearly evident

iv. Visualization

The following visuals were used:

- State-wise Performance Index Ranking Table
- Comparison Table: Child Coverage % vs Performance Index
- Map Visualization for State-wise Progress
- Scatter Plot: Infrastructure Score vs Service Score

4.5 Objective : To monitor improvement over time using Power BI dashboards

i. General Description

This objective focuses on making the dashboard future-ready for monitoring improvements over time. Although the dataset contains only a single date, conceptual monitoring visuals were designed.

ii. Specific Requirements

The requirements included:

- Target-based performance comparison
- Visual indicators to track improvement
- Time-based slicer readiness

iii. Analysis Results

The analysis shows that:

- The dashboard can easily track progress once new data is added
- Gaps between current performance and target values are clearly visible
- Monitoring and evaluation become simpler with visual indicators

iv. Visualization

The visuals created include:

- Gauge Chart: Child Coverage % vs Target
- Comparison Bar Chart: Current Coverage vs Target
- Slicers for future time-based analysis

5. Conclusion

This project demonstrates the effective use of Microsoft Power BI to analyze and visualize POSHAN Tracker data under the Poshan Abhiyaan scheme. The interactive dashboard provides clear insights into child nutrition, maternal health, and Anganwadi center performance across different regions.

By using data cleaning, DAX measures, and interactive visuals, the dashboard highlights regional gaps, performance differences, and coverage levels. It is also future-ready for tracking progress over time.

Overall, this project strengthened my skills in data analytics, visualization, and Power BI dashboard development, while showcasing the importance of data-driven decision making in public health programs.

6. Future Scope

- Real-time or periodic data can be integrated to monitor progress over time.
- Advanced DAX measures can be added for deeper performance analysis.
- Row Level Security (RLS) can be implemented for role-based data access.
- The dashboard can be published on Power BI Service for wider stakeholder use.
- Mobile-optimized views can be created for field-level monitoring

7. REFERENCE

□ **Udmy (complete-data-analyst-bootcamp-from-basics-to-advanced**
[Course: Complete Data Analyst Bootcamp From Basics To Advanced | Udem](#)

□ **Dataset Source**

https://indiadataportal.com/p/poshan-tracker/r/mowcd-poshan_statistics-dt-mn-aaa

Web Reference :

LinkedIn post Link :

https://www.linkedin.com/posts/anshu-kumar-ap_powerbi-dataanalytics-publichealth-activity-7405502508573454336-dgwo?utm_source=share&utm_medium=member_desktop&rcm=ACoAAEfR0WEBZhxb9GRTXEyqPSxEfXrgnbSau4

Drive Link:

https://drive.google.com/file/d/1oj58nyZvnJo4K-eRsJ3Pr_MLHlcn0qVZ/view?usp=drive_link

