

Project Title: Educational Disparity Among the Disabled Population in India (2011 Census)

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Client/Sponsor: Self-Initiated Project (Public Domain Dataset - Census of India 2011)

Source: <https://censusindia.gov.in/>

Purpose:

The purpose of this project is to analyze the distribution of disabled individuals across various educational levels, genders, types of disabilities, and geographic classifications (rural/urban) in India using data from the 2011 Census. The goal is to uncover patterns and disparities in education access for differently-abled populations, and to generate actionable insights for policymakers and organizations working in inclusive education and social development.

Scope / Major Project Activities:

Activity	Description
Data Cleaning	Structure complex multi-row headers, convert appropriate data types, remove redundant rows
Data Exploration	Analyze total population by disability type, gender, educational level, and rural/urban divide
Segmentation Analysis	Segment by type of disability (visual, hearing, speech, movement, mental illness, etc.)
Comparative Analysis	Compare trends between rural vs urban areas, male vs female, and literate vs illiterate
Correlation Analysis	Examine patterns between disability types and education level using statistical techniques
Visualization	Build interactive visuals and dashboards using Power BI and exploratory plots using Python/R
SQL Queries	Create summary statistics and filters for data slicing using structured SQL queries
Report & Recommendation	Highlight social inclusion gaps and propose key policy recommendations

Exclusions:

- The project does not include predictive modeling or machine learning.

- The dataset is limited to 2011 and may not reflect present-day dynamics.

Deliverables:

Deliverable	Description
Cleaned Dataset	Preprocessed version with structured headers and ready for analysis
Jupyter Notebook (.ipynb)	Python-based EDA, visualizations, and insights
SQL Query Log (.sql)	SQL queries used to derive summary insights
Power BI Dashboard	Interactive dashboard with filters for gender, area type, education, etc.
Project Report (.pdf)	Consolidated summary with visual and textual insights
README.md File	GitHub-ready documentation for project overview and usage instructions

Milestones:

Milestone	Timeline	Description
Dataset Preparation Completed	Day 1	Data cleaning and reformatting finished
Initial Exploration + SQL Analysis	Day 2	Breakdown by gender, area, and education completed
Visualizations Created	Day 3	Power BI and matplotlib/seaborn visualizations generated
Final Report + README	Day 4	All insights compiled into structured documentation and report
GitHub Publishing	Day 5	Project published with files and visual links

Estimated Completion Date:

5 days from project start (assuming daily focused work).