

Data Collection and Preprocessing Phase

Date	22 July 2025
Skillwallet ID	SWUID20250176043
Project Title	Global Energy Trends: A Comprehensive Analysis of Key Regions and Generation Modes using Power BI
Maximum Marks	3 Marks

Data Quality Report Template

Data Source	Data Quality Issue	Severity	Resolution Plan
Generation by Region Dataset	Missing values for certain countries in specific years	Moderate	Used Power Query to replace nulls with 0 where logical or excluded records with too much missing data
Generation by Mode Dataset	Inconsistent naming conventions for energy modes (e.g., “solar” vs “Solar”)	Low	Applied text transformation functions in Power Query to standardize capitalization
Energy Use by Region Dataset	Duplicates and extra rows due to footnotes or merged headers	High	Removed duplicate records and filtered unnecessary metadata rows in Power Query

Per Capita Consumption Dataset	Some rows had numeric fields stored as text	Moderate	Changed data type using Power Query to convert text to number; applied error handling for conversions
Renewable vs Non-Renewable Dataset	Mixed usage of renewable types without grouping	Low	Created custom categories and merged similar renewable types using a mapping transformation
Global Energy Summary Dataset	Column names were not descriptive and caused confusion	Low	Renamed columns to meaningful labels such as "Total_Generation", "Share_Renewable", etc.