# **🚲 Bike Dekho – Bike Sales Analysis Excel Project**

**Project Overview:**

The **Bike Dekho – Bike Sales Analysis** is a hands-on data analysis project that explores sales trends in the biking industry using Microsoft Excel. This project demonstrates how Excel can be effectively utilized for **data cleaning, transformation, analysis, and visualization** to drive meaningful business insights.

**🎯 Project Objectives:**

* To clean and organize raw bike sales data for better usability.
* To perform exploratory data analysis (EDA) using Excel formulas and PivotTables.
* To uncover key patterns in customer demographics, bike preferences, and sales performance.
* To create an interactive and insightful **dashboard** for decision-makers.

**📊 Key Tasks Performed:**

1. **Data Cleaning & Preprocessing:**
   * Removed duplicates, handled missing values
   * Standardized column formats (dates, currency, text)
   * Created calculated columns for metrics like Age, Profit Margin, etc.
2. **Exploratory Data Analysis:**
   * Used **PivotTables** to analyze:
     + Sales by gender, region, and product category
     + Preferred bike models by customer demographics
     + Impact of income and occupation on bike purchasing behavior
   * Applied **COUNTIFS, SUMIFS, VLOOKUP, IF, and DATE functions** for derived insights.
3. **Data Visualization:**
   * Created dynamic charts including:
     + Bar and column charts for sales comparisons
     + Pie charts for categorical breakdowns
     + Line charts for time-based trends
     + Slicers and filters for interactivity
4. **Dashboard Creation:**
   * Built an executive-style Excel dashboard with:
     + KPIs: Total Sales, Units Sold, Avg. Income, Customer Count
     + Segmentation by region, gender, marital status, and product line
     + Clean layout and color-coded visuals for quick decision-making

**📌 Tools & Features Used:**

* Microsoft Excel (Formulas, PivotTables, PivotCharts)
* Conditional Formatting
* Slicers and Timelines
* Named Ranges and Data Validation
* Interactive Dashboard Design

**📈 Business Insights Generated:**

* Married males aged 30–45 with higher income are the most frequent bike buyers.
* Mountain bikes are the most preferred product line.
* Western regions recorded the highest sales volume.
* Customer income and occupation significantly influence purchasing behavior.

**📁 Deliverables:**

* Cleaned and structured Excel data file
* EDA worksheet with PivotTables and formula-based insights
* Interactive Sales Dashboard

**🧠 Skills Demonstrated:**

* Data Cleaning & Preparation
* Data Analysis & Interpretation
* Business Intelligence Reporting
* Dashboard Design in Excel

# **Submission (20th July) :**

1. **Excel Cleaned file**
2. **Excel Dashboard**
3. **Recorded video**
4. **Insights documentation (PDF, PPT)**