# 🌼 A Desi Guide to Exploratory Data Analysis (EDA) in Urdu/Hindi 🌼

Aslam-o-Alaikum futuristic data scientists! 🌍 💻 Aaj hum desi tareeqay se EDA ke khoobsoorat duniya mein ghoomenge. Aaiye shuru karte hain! 🌼 🚀

Exploratory Data Anlaysis aik important task hy jis per saray AI depend karti hy.

## 1. Data Collection 📚
- **Gathering Data:**

Data collect karna jaise hum bazaar se sabziyan lete hain. Kuch data toh APIs aur CSV files se milta hai.
**Desi Tarka:** Jaise sabziyan taaza honi chahiye, waise hi data bhi fresh aur relevant hona chahiye!
- **Understanding the Data Source:**

Data kahan se aya, yeh samajhna zaroori hai, jaise aap apni dadi se purani kahaniyan sunte hain.
**Desi Tarka:** Dadi ki kahaniyon mein hamesha ek seekh hoti hai, waise hi data source ko samajhne se insight milti hai!

## 2. Data Cleaning 🧹
- **Handling Missing Data:**

Data mein kabhi kabhi kuch values missing hoti hain, unko sahi se handle karna important hota hai.
**Desi Tarka:** Jaise pakode mein namak kam ho jaye toh swaad nahi aata, waise hi missing data ko fill karna padta hai!
- **Removing Duplicates:**

Duplicate values ko hatana padta hai, warna problem hoti hai.
**Desi Tarka:** Jaise duplicate samaan ko alag karna padta hai, waise hi duplicate data ko bhi!
- **Data Type Conversion:**

Columns ko suitable data types mein convert karna padta hai.
**Desi Tarka:** Jaise aaloo ko katakar fry karte hain, waise hi data types ko convert karte hain!

## 3. Data Wrangling 🧙
- **Subsetting and Filtering:**

Data ko chhan kar relevant parts ko select karna padta hai.
**Desi Tarka:** Jaise chaai mein se pattiyan chhan lete hain, waise hi data se unnecessary parts ko chhan lete hain!
- Transforming Variables:

Maujooda variables ko transform karke naye variables banate hain.
**Desi Tarka:** Jaise aata goondh kar roti banate hain, waise hi variables ko transform karte hain!
- **Reshaping Data:**

Data ko zaroorat ke mutaabiq reformat karna padta hai.
**Desi Tarka:** Jaise roti ko bel kar gol karte hain, waise hi data ko reshape karte hain!

## 4. Data Visualization 🎨
**Univariate to Multivariate Visualization:**

Ek se zyada variables ko plot karna, taake unke distributions aur relationships ko samajh sakein.

Desi Tarka: **Jaise mithaiyon ki variety dekh kar choose karte hain, waise hi variables ko dekh kar insights** nikalte hain!

## 5. Descriptive Statistics 📊

- **Central Tendency & Spread of Data:**

Data ki central values aur spread ko samajhna padta hai.

**Desi Tarka:** Jaise biryani mein masala evenly spread hota hai, waise hi data spread ko check karte hain!

- **Correlation Analysis:**

Variables ke beech ke relationships ko analyze karna padta hai.

**Desi Tarka:** Jaise chai aur biscuit ek saath achha lagta hai, waise hi correlations check karte hain!

## 6. Dimensionality Reduction 🔍

- **Feature Engineering & Selection:**

Maujooda features se naye features create karte hain aur relevant ones ko select karte hain.

**Desi Tarka:** Jaise masalon se khana tasty banta hai, waise hi features se data analysis mein maza aata hai!

## 7. Hypothesis Testing 🧪

- **Formulating & Testing Hypothesis:**

Clear aur testable hypothesis banate hain aur unko test karte hain.

**Desi Tarka:** Jaise pani puri mein paani test karte hain, waise hi hypothesis test karte hain!

## 8. Pattern and Anomaly Detection 🔎

- **Identifying Patterns:**

Data mein patterns aur trends dhundhna.

**Desi Tarka:** Jaise mehendi lagate waqt patterns bana lete hain, waise hi data patterns find karte hain!

## 9. Modeling 📈

- **Building Models & Validation:**

Problem ke hisaab se suitable models build karte hain.

**Desi Tarka:** Jaise khud ko sheeshe mein dekh kar tayyar hote hain, waise hi models ko validate karte hain!

## 10. Report and Documentation 📝

- **Documentation & Reporting:**

Findings aur methodologies ko properly document karte hain.

**Desi Tarka:** Jaise kahaniyan likh kar yaad rakhne mein asani hoti hai, waise hi documentation helps in remembering the process!