**:- ----- DAVIS-EXCEL-PRACTICES-BY NEEL KARAN BIND ------------:-**

**Data Validation Practice Questions for the dataset:**

**Practice Questions for Data Validation:**  input Restrictions

**Numeric Restrictions**

**1. Allow only numbers between 0 and 100 in the Marks column**

* Select the range in the Marks column (e.g., D2:D101, assuming row 1 is headers).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Whole number.
* Set Data: between, Minimum: 0, Maximum: 100.
* Optionally, add Input Message and Error Alert for user guidance (e.g., Error: "Marks must be between 0 and 100").

**2. Restrict Age to values between 20 and 40**

* Select the range in the Age column (e.g., E2:E101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Whole number.
* Set Data: between, Minimum: 20, Maximum: 40.
* Optionally, add Error Alert: "Age must be between 20 and 40".

**3. Restrict Salary to values between 20,000 and 90,000**

* Select the range in the Salary column (e.g., G2:G101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Whole number.
* Set Data: between, Minimum: 20000, Maximum: 90000.
* Optionally, add Error Alert: "Salary must be between 20,000 and 90,000".

**4. Ensure Joining Date is not earlier than 01-Jan-2020**

* Select the range in the Joining Date column (e.g., F2:F101). Note: The provided data uses serial numbers (e.g., 44225 represents a date; Excel interprets these as dates from 1900 epoch).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Date.
* Set Data: greater than or equal to, Start date: 1/1/2020.
* Optionally, add Error Alert: "Joining Date cannot be earlier than 01-Jan-2020".

**5. Prevent blank entries in the Name field**

* Select the range in the Name column (e.g., B2:B101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =LEN(B2)>0 (adjust for your starting cell).
* Uncheck "Ignore blank".
* Optionally, add Error Alert: "Name cannot be blank".

**Dropdown Lists**

For all dropdowns, first create the source lists in a separate sheet (e.g., Sheet2) or use named ranges for better management. Then apply validation.

**1. Create a dropdown for Department (HR, IT, Finance, Sales, Marketing)**

* In a helper range (e.g., Sheet2!A1:A5), enter: HR, IT, Finance, Sales, Marketing.
* Select the Department column range (e.g., C2:C101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: List.
* Source: =Sheet2!$A$1:$A$5 (or use a named range like "Departments").
* Optionally, check "In-cell dropdown".

**2. Create a dropdown for City (Delhi, Lucknow, Varanasi, Kanpur, Jaipur, Patna, Agra, Chandigarh, Bhopal, Gurgaon)**

* In a helper range (e.g., Sheet2!B1:B10), enter the cities as listed.
* Select the City column range (e.g., H2:H101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: List.
* Source: =Sheet2!$B$1:$B$10 (or named range "Cities").
* Optionally, check "In-cell dropdown".

**3. Create a dropdown for Grade (A, B, C, D, F)**

* Note: The provided sheet does not have a Grade column. Add a new column (e.g., J for Grade).
* In a helper range (e.g., Sheet2!C1:C5), enter: A, B, C, D, F.
* Select the Grade column range (e.g., J2:J101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: List.
* Source: =Sheet2!$C$1:$C$5 (or named range "Grades").
* Optionally, check "In-cell dropdown".

**4. Create a dropdown for Employment Type (Full-Time, Part-Time, Contract)**

* Note: The provided sheet does not have an Employment Type column. Add a new column (e.g., K for Employment Type).
* In a helper range (e.g., Sheet2!D1:D3), enter: Full-Time, Part-Time, Contract.
* Select the Employment Type column range (e.g., K2:K101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: List.
* Source: =Sheet2!$D$1:$D$3 (or named range "EmploymentTypes").
* Optionally, check "In-cell dropdown".

**5. Create a dropdown for Gender (Male, Female, Other)**

* Note: The provided sheet does not have a Gender column. Add a new column (e.g., L for Gender).
* In a helper range (e.g., Sheet2!E1:E3), enter: Male, Female, Other.
* Select the Gender column range (e.g., L2:L101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: List.
* Source: =Sheet2!$E$1:$E$3 (or named range "Genders").
* Optionally, check "In-cell dropdown".

***Custom Formulas***

**1. Ensure Email contains “@gmail.com”**

* Select the Email column range (e.g., I2:I101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =ISNUMBER(SEARCH("@gmail.com",I2)) (adjust for your starting cell).
* Optionally, add Error Alert: "Email must contain '@gmail.com'".

**2. Prevent duplicate entries in the Email column**

* Select the Email column range (e.g., I2:I101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =COUNTIF($I$2:$I$101,I2)=1 (locks the range for absolute reference).
* Optionally, add Error Alert: "Duplicate email not allowed".

**3. Allow only names with at least two words (First + Last)**

* Select the Name column range (e.g., B2:B101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =LEN(B2)-LEN(SUBSTITUTE(B2," ",""))>=1 (counts spaces; >=1 ensures at least one space for two words).
* Optionally, add Error Alert: "Name must have at least two words (First + Last)".

**4. Ensure Marks > 40 if Department = IT**

* Select the Marks column range (e.g., D2:D101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =IF(C2="IT",D2>40,TRUE) (references Department in C2; adjust columns as needed).
* Optionally, add Error Alert: "Marks must be greater than 40 for IT Department".

**5. Restrict Salary > 50,000 only if Department = Finance**

* Select the Salary column range (e.g., G2:G101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =IF(C2="Finance",G2>50000,TRUE) (references Department in C2).
* Optionally, add Error Alert: "Salary must be greater than 50,000 for Finance Department".

**Date & Time Validation**

Note: Current date is October 06, 2025, for reference in formulas.

**1. Restrict Joining Date to weekdays only**

* Select the Joining Date column range (e.g., F2:F101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =WEEKDAY(F2,2)<6 (2 starts week on Monday; <6 excludes Sat/Sun).
* Optionally, add Error Alert: "Joining Date must be a weekday".

**2. Allow Joining Date only within the last 5 years**

* Select the Joining Date column range (e.g., F2:F101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Date.
* Set Data: between, Start date: =TODAY()-1826 (approx. 5 years; 365\*5 +1 for leap), End date: =TODAY().
* Optionally, add Error Alert: "Joining Date must be within the last 5 years".

**3. Ensure Joining Date is earlier than today’s date**

* Select the Joining Date column range (e.g., F2:F101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Date.
* Set Data: less than, End date: =TODAY().
* Optionally, add Error Alert: "Joining Date must be earlier than today's date (October 06, 2025)".

**Dependent Validation**

**1. If Department = Sales, then City must be from (Delhi, Jaipur, Lucknow)**

* First, create a helper list for Sales cities in Sheet2 (e.g., F1:F3: Delhi, Jaipur, Lucknow; name it "SalesCities").
* Select the City column range (e.g., H2:H101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom (or List with formula).
* Formula: =IF(C2="Sales",COUNTIF(SalesCities,H2)>0,COUNTIF(Cities,H2)>0) (assumes "Cities" is the full city named range from earlier).
* Optionally, add Error Alert: "For Sales Department, City must be Delhi, Jaipur, or Lucknow".

**2. If Age < 25, restrict Salary to less than 40,000**

* Select the Salary column range (e.g., G2:G101).
* Go to Data > Data Validation > Data Validation.
* Under Settings tab, set Allow: Custom.
* Formula: =IF(E2<25,G2<40000,TRUE) (references Age in E2).
* Optionally, add Error Alert: "If Age < 25, Salary must be less than 40,000".