Lesson 3

1. What is the purpose of the "Applied Steps" pane in Power Query?

☞ Bu panel Power Query oynasining **o'ng tomonida** joylashgan bo'ladi.

Unda siz qilgan barcha **transformatsiya qadamlar** yozib boriladi (masalan: Change Type, Remove Columns, Filter Rows).

✅ Maqsad: har bir qadamni qayta ko'rib chiqish, o'chirish yoki tartibini o'zgartirish mumkin.

2. How do you remove duplicate rows in Power Query?

- Ustunni (yoki butun jadvalni) tanlang.
- Ribbon'dan: **Home → Remove Rows → Remove Duplicates**.

✅ Bu "takroriy yozuvlarni" olib tashlaydi.

3. What does the "Filter" icon do in Power Query?

☞ Har bir ustunning yuqorisida filtr belgisi bor.

- U orqali faqat kerakli qiymatlarni qoldirasiz (masalan, faqat 2023 yil).
- Excel dagi "Filter" tugmasiga o'xshaydi.

4. How would you rename a column from "CustID" to "CustomerID"?

- Ustun sarlavhasiga ikki marta bosib, yangi nom yozasiz.
- Yoki: **Right-click → Rename**.

✅ Natija: CustID → CustomerID bo'ladi.

5. What happens if you click "Close & Apply" in Power Query?

☞ Power Query'dagi o'zgarishlar **Power BI modeliga yuklanadi**.

- Close → Power Query oynasini yopadi.
- Apply → qilingan transformatsiyalarni Power BI ga qo'llaydi.

6. Remove all rows where Quantity is less than 2.

- Quantity ustunida filtr oching → "Number Filters → Greater than or equal to 2" tanlang.

✅ Natija: faqat Quantity ≥ 2 qoladi.

7. Split the OrderDate column into separate "Year," "Month," and "Day" columns.

- OrderDate ustunini tanlang.
- **Transform → Date → Year / Month / Day** tanlang.
- Har biri alohida ustun hosil qiladi.

8. Replace all "Mouse" entries in the Product column with "Computer Mouse."

- Product ustunini tanlang.
- **Transform → Replace Values**.
- "Mouse" ni yozing, "Computer Mouse" ga almashtiring.

9. Sort the table by OrderDate (newest first).

- OrderDate ustunini tanlang.
- **Sort Descending** tugmasini bosing.

✅ Endi jadval eng yangi sanadan boshlanadi.

10. How would you handle null values in the Price column?

☞ Uch xil usul bor:

1. **Replace nulls with 0** → Home → Replace Values.
2. **Remove null rows** → Home → Remove Rows → Remove Blank Rows.
3. **Keep only non-null rows** → Filter orqali.

11. Write custom M-code to add a column calculating TotalSpent = Quantity * Price.

☞ Power Query'da:

- **Add Column → Custom Column**:

= [Quantity] * [Price]

✅ Bu yangi ustun "TotalSpent" hosil qiladi.

12. Group the table by CustID to show total spending per customer.
- CustID ustunini tanlang.
- **Home → Group By**.
- Operation: **Sum → TotalSpent**.

✅ Natija: har bir mijozning umumiy sarfi.

13. Fix inconsistent date formats (e.g., 01/10/2023 vs. 2023-01-10) in OrderDate.

☞ Power Query'da:
- OrderDate ustunini tanlab → **Data Type = Date** qilib qo'ying.
- Power Query avtomatik ravishda barcha yozuvlarni yagona formatga keltiradi.

14. Create a conditional column: Label orders as "High Value" if Price > 100.
- **Add Column → Conditional Column** tanlang.
- Shart: If Price > 100 → "High Value" else "Normal".

✅ Bu qo'shimcha ustun hosil qiladi.

15. Optimize the query to reduce refresh time (e.g., remove unused columns early).

☞ Eng muhim qoida:
- Avval **keraksiz ustunlarni olib tashlang** (Remove Columns).
- Keyin filtr, group by va boshqa qadamlarni bajaring.
- Chunki qanchalik ko'p ustun qolsa, refresh shuncha sekinlashadi.

✅ Yaxshi amaliyot: "Column pruning" va "early filtering".

Orders

CustID	Name	OrderDate	Product	Quantity	Price
101	Alice	2023-01-10	Laptop	1	1200
102	Bob	2023-01-15	Mouse	3	25
101	Alice	2023-01-20	Keyboard	2	80
103	Charlie	2023-01-25	Monitor	1	300

Customer_orders

CustID	Name	Email
101	Alice	alice@example.com
102	Bob	bob@example.com
103	Charlie	charlie@example.com