



ASP4134 - Audit Sistem Informasi

week 11: Parallel Simulation



AGENDA

1. Parallel Simulation
2. In-Class Exercise
3. Individual assignment





ASP4134 - Audit Sistem Informasi

Key objectives:

1. memahami kerangka **konsep audit tata kelola** teknologi informasi berdasarkan standar tata Kelola
2. menyusun **program audit tata kelola** sistem informasi
3. menyusun **laporan audit tata kelola** sistem informasi
4. melaksanakan **pengauditan atas pengoperasian dan pemeliharaan** atas sistem informasi
5. melakukan **audit atas perolehan, pengembangan, dan implementasi sistem informasi**
6. melakukan **pengauditan atas keamanan informasi**
7. menggunakan **Teknik Audit Berbantuan Komputer** dalam pengujian pengendalian dan pengujian substantif
8. menjelaskan dampak kelemahan **pengendalian umum dan pengendalian aplikasi** terhadap peluang terjadinya kecurangan dan kesalahan saji pada laporan keuangan



Here we are

Last Week Recap

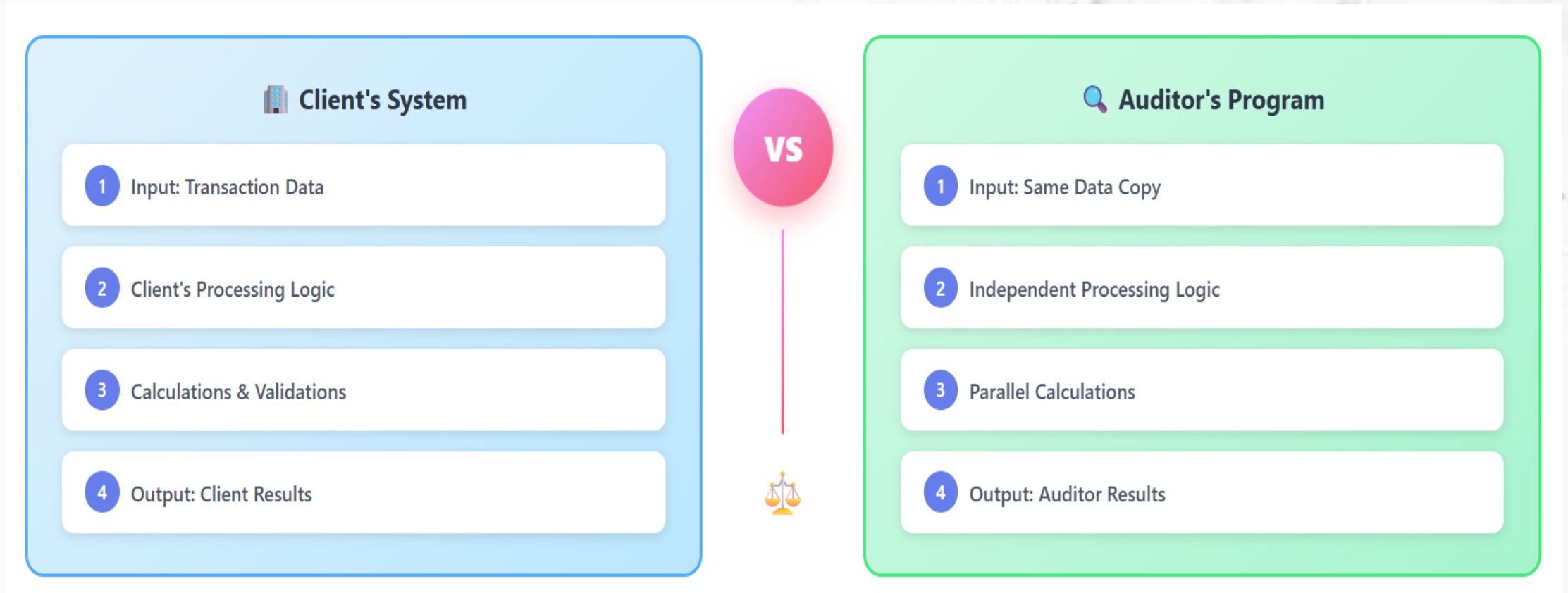
- Control in IT Environment:
 - ❖ IT General Control
 - › systems, components, processes, and data for a given organization or information technology (IT) environment
 - ❖ IT Application Control
 - › Controls that are specific and embedded within individual applications to ensure accuracy, authorization, & integrity.
- Audit process starts with **business understanding**, by performing application walkthrough to collect information before we established the RCM and Audit Program.



Parallel Simulation



What is Parallel Simulation?



Characteristics

Independence:
The auditor operates independently from the client's system

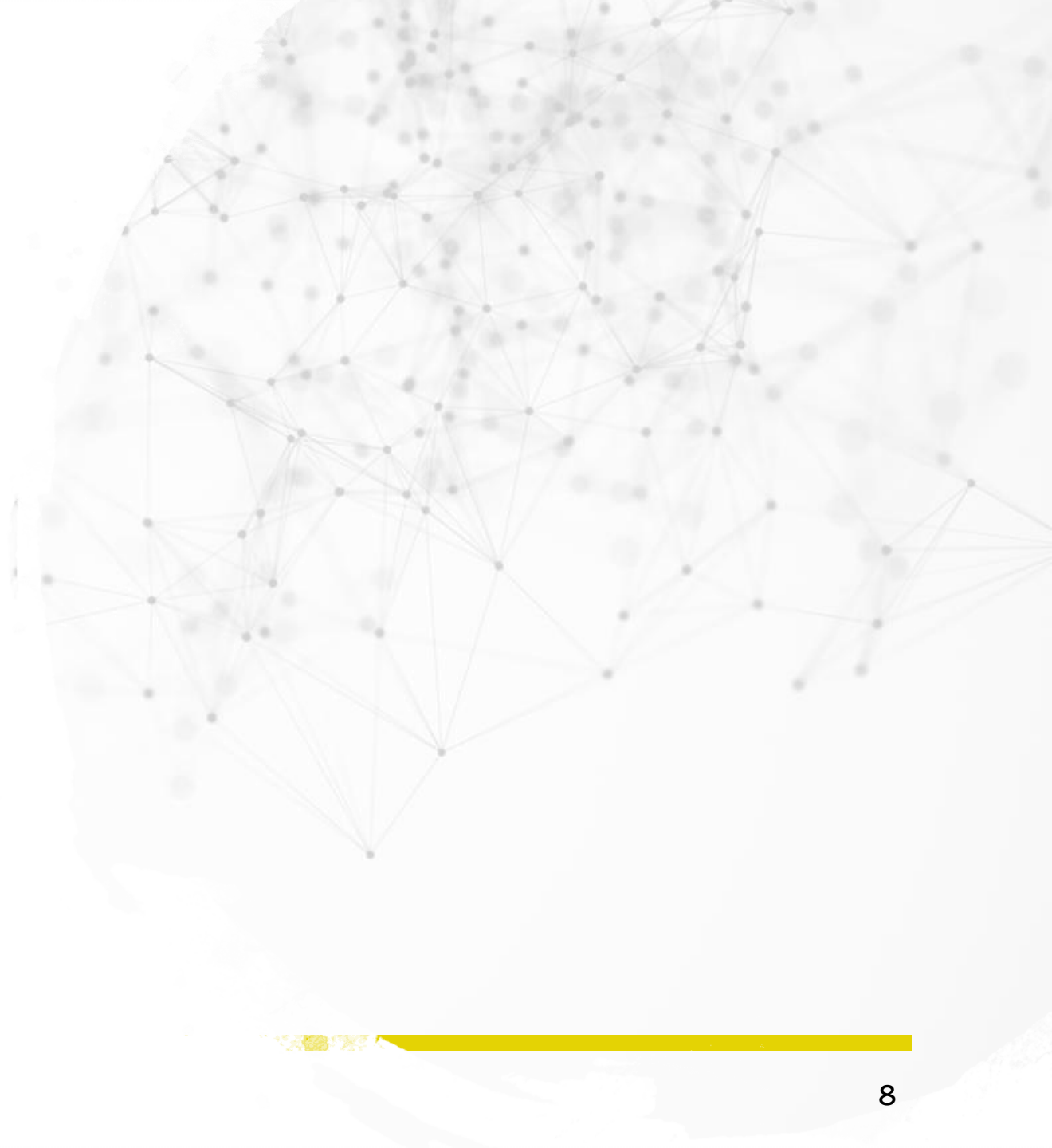
Same Input Data:
Both systems process identical source data

Comparative Analysis:
Results are compared to detect differences

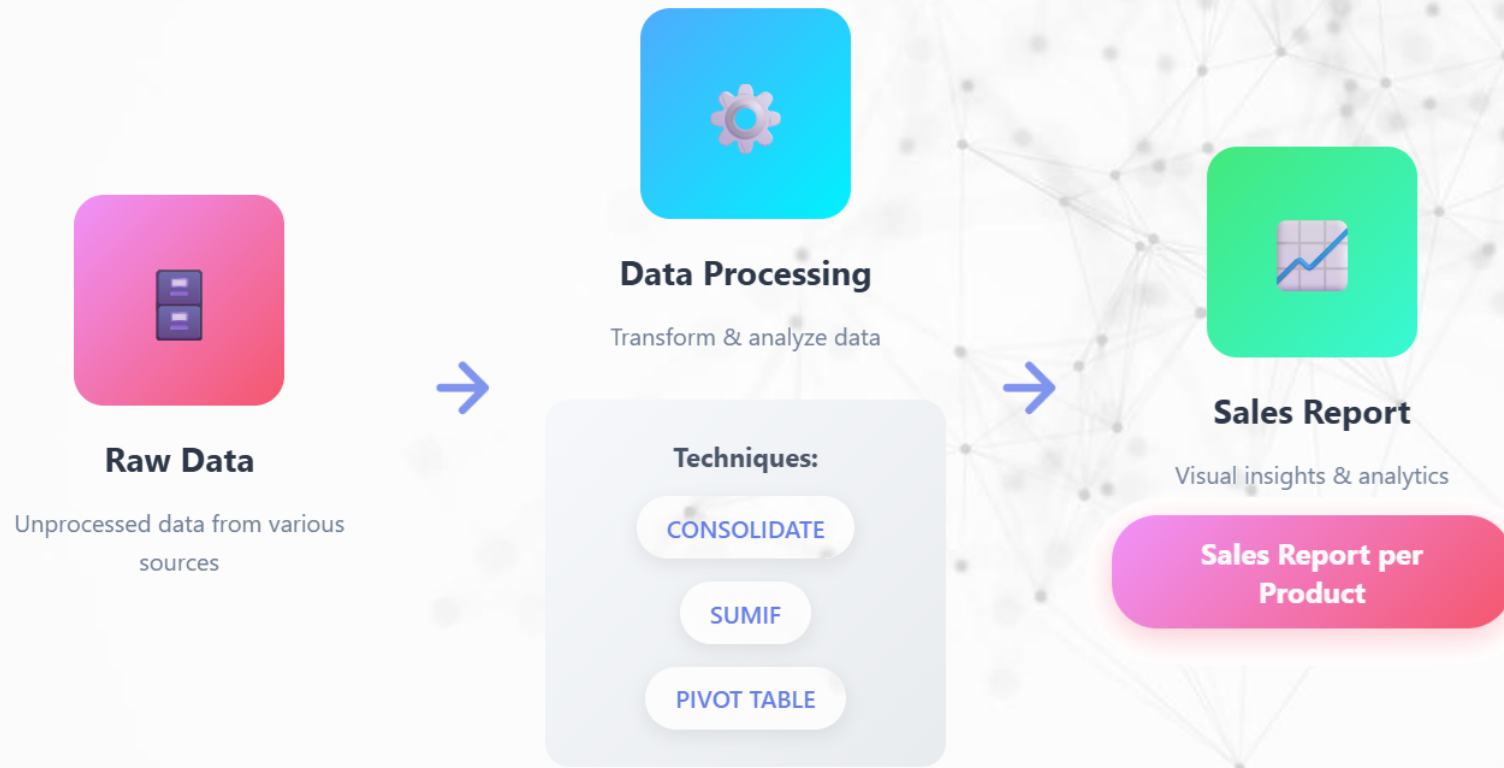
Application Control Testing:
Primarily used to test the accuracy and reliability of client's automated processing controls



PRACTICE



Parallel Simulation – Sales Report

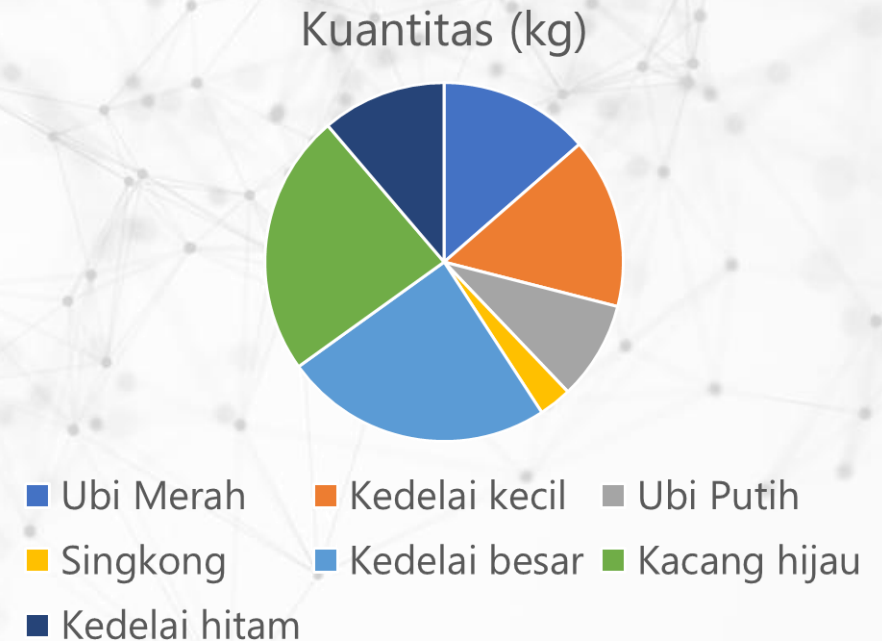


Objective:

1. Verify the accuracy of system calculation
2. Identify the root cause of any discrepancies, if any

LAPORAN YANG DIHASILKAN (versi Auditee)

Laporan Penjualan Per Produk	
Produk	Kuantitas (kg)
Ubi Merah	69
Kedelai kecil	78
Ubi Putih	45
Singkong	15
Kedelai besar	123
Kacang hijau	120
Kedelai hitam	57



Raw Data **Latihan 11_1_LapPenjualan**

No Invoice	Tgl	Barang	Kuantitas (kg)	Harga satuan	Jumlah bruto
Inv-0700392	02/01/2019	Ubi Merah	9	2.800	25.200
Inv-0700393	02/01/2019	Kedelai kecil	33	3.500	115.500
Inv-0700394	04/01/2019	Ubi Putih	42	2.500	105.000
Inv-0700395	06/01/2019	Singkong	15	2.100	31.500
Inv-0700396	08/01/2019	Ubi Merah	60	2.800	168.000
Inv-0700397	09/01/2019	Kedelai besar	42	4.000	168.000
Inv-0700398	12/01/2019	Kedelai kecil	6	3.500	21.000
Inv-0700399	13/01/2019	Kedelai besar	51	4.000	204.000
Inv-0700400	15/01/2019	Kacang hijau	21	6.500	136.500
Inv-0700401	16/01/2019	Kacang hijau	48	6.500	312.000
Inv-0700402	16/01/2019	Kedelai besar	30	4.000	120.000
Inv-0700403	19/01/2019	Kedelai hitam	27	7.200	194.400
Inv-0700404	20/01/2019	Ubi Putih	3	2.500	7.500
Inv-0700405	20/01/2019	Kacang hijau	51	6.500	331.500
Inv-0700406	20/01/2019	Kedelai kecil	39	3.500	136.500
Inv-0700407	23/01/2019	Kedelai hitam	30	7.200	216.000



1. Consolidate

1. Letakkan kursor pada salah satu sel di sheet yang kosong
2. Klik menu Data → Consolidate
3. Pada saat kursor berada di kotak Reference, Klik Sheet Data Penjualan, kemudian sorot area C1:D17
4. Klik tombol Add
5. Aktifkan kotak Top Row dan Left Column
6. Klik OK

Consolidate

Function:
Sum

Reference:
'Data Penjualan!\$C\$1:\$D\$17

All references:

Use labels in
 Top row
 Left column
 Create links to source data

OK Close

Result

	Kuantitas (kg)
Ubi Merah	69
Kedelai kecil	78
Ubi Putih	45
Singkong	15
Kedelai besar	123
Kacang hijau	120
Kedelai hitam	57

Auditor's

Laporan Penjualan Per Produk	
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Auditee's



Compare

2. SUMIF

1. Letakkan kursor pada sel B4 sheet Lap2.
2. Klik rumus = Sumif(Kemudian klik symbol *fx*
3. Klik : Criteria, kemudi ketik A4
4. Klik: Range, kemudian pilih area C2:C17 pada sheet Data Penjualan
5. Klik : Sum_Range, kemudian pilih area D2:D17 pada sheet Data Penjualan
6. Klik OK

Produk	Jumlah (kg)
Kacang hijau	
Kedelai besar	123
Kedelai hitam	57
Kedelai kecil	78
Singkong	15
Ubi Merah	69
Ubi Putih	45

Function Arguments

SUMIF

Range: 'Data Penjualan'!\$C\$2:\$C\$17

Criteria: A4

Sum_range: 'Data Penjualan'!\$D\$2:\$D\$17

Adds the cells specified by a given condition or criteria.

Criteria is the condition or criteria in the form will be added.

Formula result = 120



Use Absolute References \$

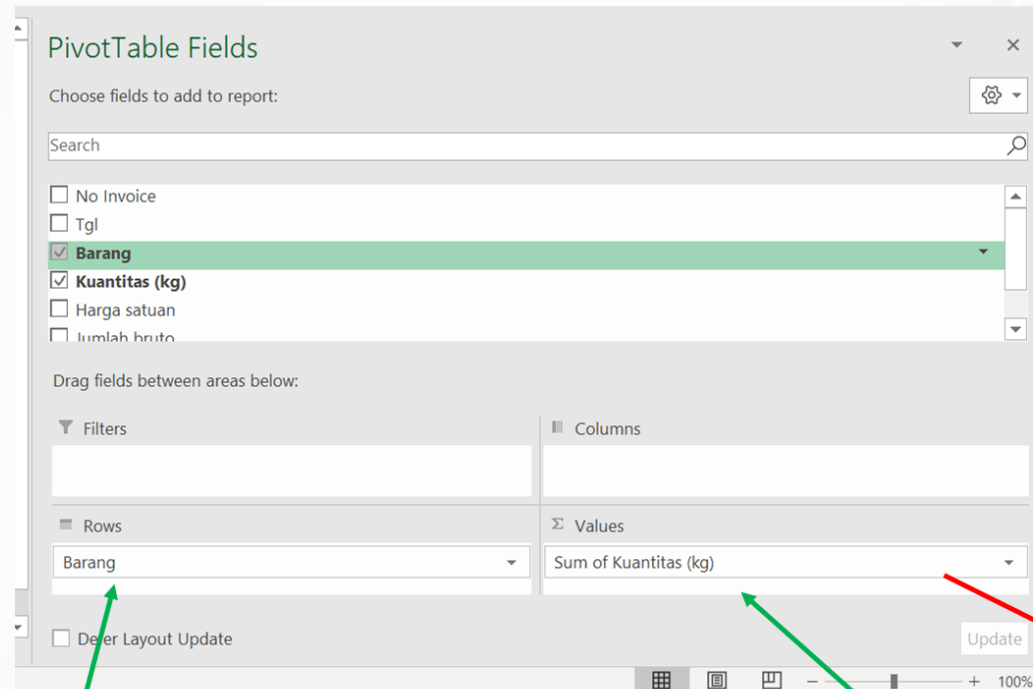
3. Pivot Table

1. Klik Insert → Pivot
2. Pilih table or range
3. Pilih lokasi hasil Pivot Table

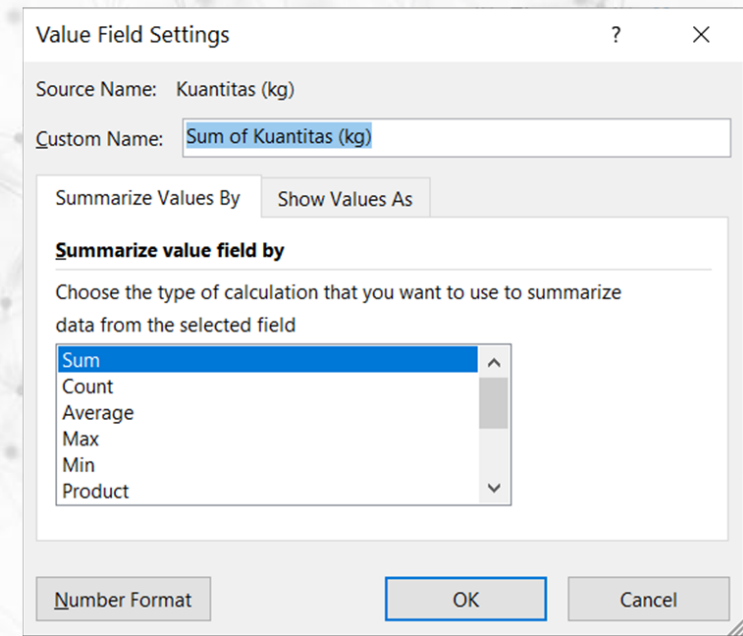
The screenshot shows the 'Create PivotTable' dialog box in Microsoft Excel. The dialog box is open, and the 'Table/Range' field is set to 'Data Penjualan!\$A\$1:\$F\$17'. The 'New Worksheet' option is selected for where to place the report. The data table below shows the following information:

No Invoice	Tgl	Barang			
Inv-0700392	02/01/2019	Ubi Merah			
Inv-0700393	02/01/2019	Kedelai kecil			
Inv-0700394	04/01/2019	Ubi Putih			
Inv-0700395	06/01/2019	Singkong			
Inv-0700396	08/01/2019	Ubi Merah			
Inv-0700397	09/01/2019	Kedelai besar			
Inv-0700398	12/01/2019	Kedelai kecil			
Inv-0700399	13/01/2019	Kedelai besar			
Inv-0700400	15/01/2019	Kacang hijau			
Inv-0700401	16/01/2019	Kacang hijau			
Inv-0700402	16/01/2019	Kedelai besar			
Inv-0700403	19/01/2019	Kedelai hitam			
Inv-0700404	20/01/2019	Ubi Putih	3	2.500	7.500
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3. Pivot Table



1. Geser Field/Data "Barang" ke bagian Row → untuk membuat summary atas "Barang"
2. Geser "Kuantitas" ke bagian Values untuk menampilkan nilai kuantitas secara summary atas data Barang



1. Klik Values
2. Klik Value Field Setting

Result

	Kuantitas (kg)
Ubi Merah	69
Kedelai kecil	78
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Auditor's

Laporan Penjualan Per Produk	
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Auditee's



Compare

Latihan

File: Latihan 11_2_LapPenjualan.xlsx

Context: You are auditing PT ABC's sales application. The company has provided two pre-generated reports and the underlying raw transaction data. Your job is to independently verify those reports using parallel simulation.

- 1. Test Report 1 — Sales Recapitulation Per Customer:** From the raw data, use SUMIF or Pivot Table to compute total sales amount per customer. Compare your result to the system-generated "Laporan Rekapitulasi Penjualan Per Pelanggan." Flag any customer where figures differ.
- 2. Test Report 2 — Sales Frequency Per Salesperson:** From the raw data, use COUNTIF or Pivot Table to count the number of transactions per salesperson per product. Compare to "Laporan Frekuensi Penjualan Per Pramuniaga." Identify salesperson-product combinations with discrepancies.
- 3. Root Cause Analysis:** For any discrepancy found, analyze and document the possible cause — e.g., unrecorded transactions, incorrectly assigned salesperson codes, rounding differences, or system cut-off errors.

Deliverable: Prepare a working paper showing: (a) your simulation calculations, (b) comparison table (Auditor vs. System), and (c) a brief narrative of findings and recommendations.



Contoh Report

PT ABC					
Laporan Rekapitulasi Penjualan per Pelanggan					
PELANGGAN	Jumlah Penjualan Bruto	Discount	Jumlah Netto	PPN	Total Tagihan
Bu Asih	172.500	-	172.500	17.250	189.750
Bu Jenab	304.500	-	304.500	30.450	334.950
CV Laris	904.500	30.360	874.140	87.414	961.554
Kades Sido Mukti	421.500	4.800	416.700	41.670	458.370
Pak Ahmad	237.000	9.450	227.550	22.755	250.305
Pak Dul	1.100.200	11.016	1.089.084	108.908	1.197.992
PT Maju	1.772.700	8.640	1.764.060	176.406	1.940.466
Toko "Bunda"	843.000	33.315	809.685	80.969	890.654
Toko "jenius"	595.800	42.150	553.650	55.365	609.015
Toko Jaya	1.222.500	23.190	1.199.310	119.931	1.319.241
Warung Suka Mura	1.695.000	65.850	629.150	162.915	1.792.065
Warung Bu Iyah	21.600	-	21.600	2.160	23.760
Warung Sehat	90.000	-	390.000	39.000	429.000
Grand Total	9.680.700	228.771	9.451.929	945.193	10.397.122

PT ABC

Laporan

Frekuensi Penjualan Per Pramuniaga Per Produk

Produk	Rahmat	Roy	Tono	Yuni	Grand Total
Cabai kering				1	3
Kacang hijau		4	1	2	11
Kedelai besar		6	1	2	13
Kedelai hitam		2		2	4
Kedelai kecil			4		8
Kentang besar		1			1
Kentang kecil		1			1
Singkong		3			3
Ubi Merah		1	2	1	5
Ubi Putih		1	1	2	6
Grand Total	20	10	10	15	55



Parallel Simulation – Purchasing

Objectives:

1. Ensuring quantity's consistency
2. Price Accuracy
3. Duplicate invoices? Fictitious Invoices?
4. Assesing control

Therefore, we perform → **Purchase Order (PO) vs Goods Receipt (GR) vs Invoice**

File: Latihan 11_4_LapPembelian.xlsx



Individual Assignment

A company, PT NONAME, is currently being audited by you. You are tasked to conduct parallel simulation for its financial report. The company has given you its report (Trial Balance, Sales Report, and Purchasing Report) and data (Sales Data, Purchasing Data, and General Ledger).

Task:

1. Use files within the folder “Data Tugas”;
2. Import and validate the data received from your auditee. Make a necessary corrections, if any;
3. Conduct parallel simulation to test the report’s accuracy;
4. Perform additional analysis on aspects that may be of interest to management.
5. Document and analyze your findings;
6. Create a Report summarizing your findings and recommendations.

DEADLINE: 24 FEBRUARY 2025 – 23:59

**1-2 ORANG YANG MENGUMPULKAN TERAKHIR HARUS PRESENTASI
DI PERTEMUAN BERIKUTNYA**



Thank You

