ILLINOIS TECH

Common Visual Types

Center for Learning Innovation Summer Training

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Basic principles

Context Comes Before Description

The same image can have different descriptions because the context is different.

Before writing alt text

- Read the surrounding content.
- Understand the learning goal.

Decide

- How the image supports the lesson.
- Only the details that help learning.

If We Focus On Slide Design

Alt Text

The slide lists examples for each media type. A large camera photo appears on the right as a decorative image.

If We Focus On Slide Topic

Alt Text

The “Media” slide lists three types of media on the left: paid, owned, and earned.

Extended Description

Paid media includes advertising and sponsorships, owned media includes company-controlled channels, and earned media refers to word of mouth or viral marketing.

Decorative Image

Factors to Consider:

Does the photo explain a concept, process, or data relationship, and do readers need the image to understand the lesson?

If the image is purely aesthetic

Mark it as "Decorative" or leave the Alt text blank to save screen reader users' time with non-essential descriptions.

I'm excited to have you join this course. We're in for a learning experience about calculus. Get ready to explore, ask questions, and expand your knowledge. Together, we'll make this a rewarding experience.

Narrative Visuals

Visuals that represent real or illustrated objects, people, or scenes.

Photos and Real-world Images

Factors to Consider:

Tailor the description to the specific academic context. Do not start with “image of” or “picture of”,

For a sociology class

Focus on the demographic, environments, and social interactions depicted.

For a botany class

Focus on the features, textures, and physical conditions of the plant specimen.

If We Focus On Early Film Era History

Alt Text

A Kinetoscope Parlor shows a row of viewing machines with attendants and visitors inside an early motion picture arcade.

Extended Description

illustrates how multiple people could individually view short motion pictures before movie theaters became common.

If We Focus On Appearance And Design

Alt Text

A Kinetoscope Parlor about waist height with a rectangular body and a slanted top panel that contains a single viewing opening.

Extended Description

The cabinets have flat sides, straight edges, and a sturdy box-like construction.

Illustration / Artwork

Factors to Consider:

Adjust the descriptive depth based on the learning objective and moral.

For an art or design course

Prioritize technical visual elements like lines, color palettes, brushstrokes, and composition.

For a literature course

Focus on the subjects, historical context, or emotion the piece conveys.

If We Focus On Communication Problem

Alt Text

A presenter offers a simple dashboard saying, “...OR YOU COULD JUST LOOK AT THIS.” while others face a full of charts whiteboard,

Extended Description

suggests that a clear visual can replace a complicated explanation.

If We Focus On Data Visualization

Alt Text

A tablet with a simple dashboard is presented beside a crowded whiteboard, with the caption, "...OR YOU COULD JUST LOOK AT THIS."

Extended Description

emphasizes how a simple dashboard can communicate information more clearly than a cluttered presentation.

Icons & Symbols

Factors to Consider:

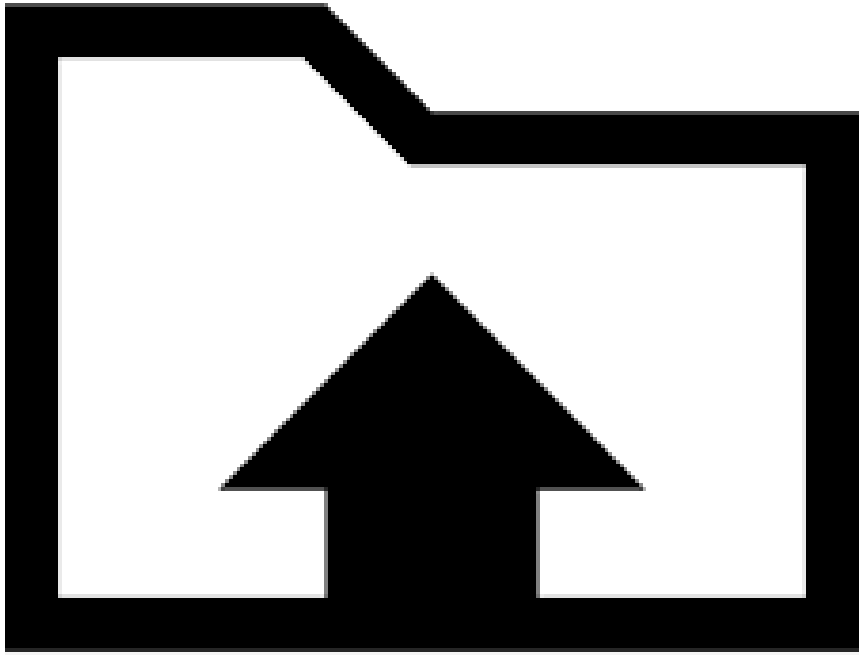
Identify whether the icon carries functional or conceptual meaning.

If it functions as a button

Describe its meaning or function

If it focuses on design

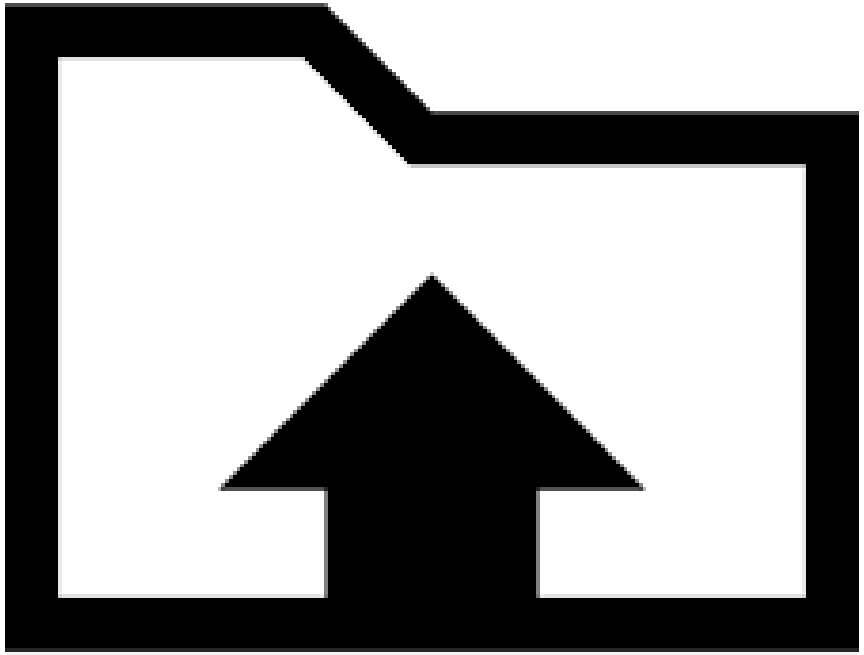
Describe the shape with color if meaningful, and indicate meaning or function.



If We Focus On Functions

Alt Text

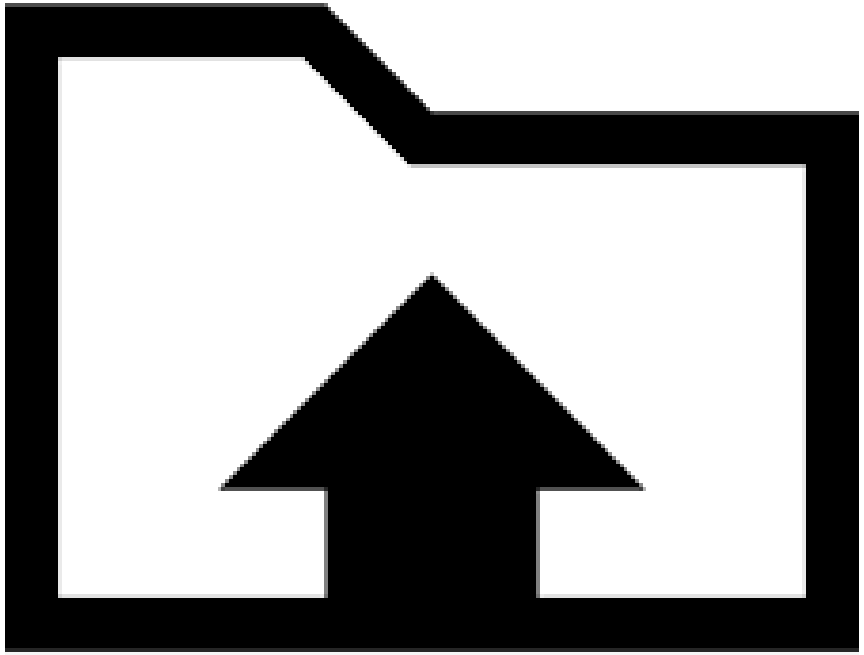
Uploading a file button.



If We Focus On Design

Alt Text

Black outline icon of a document with a solid upward-pointing arrow in the center.



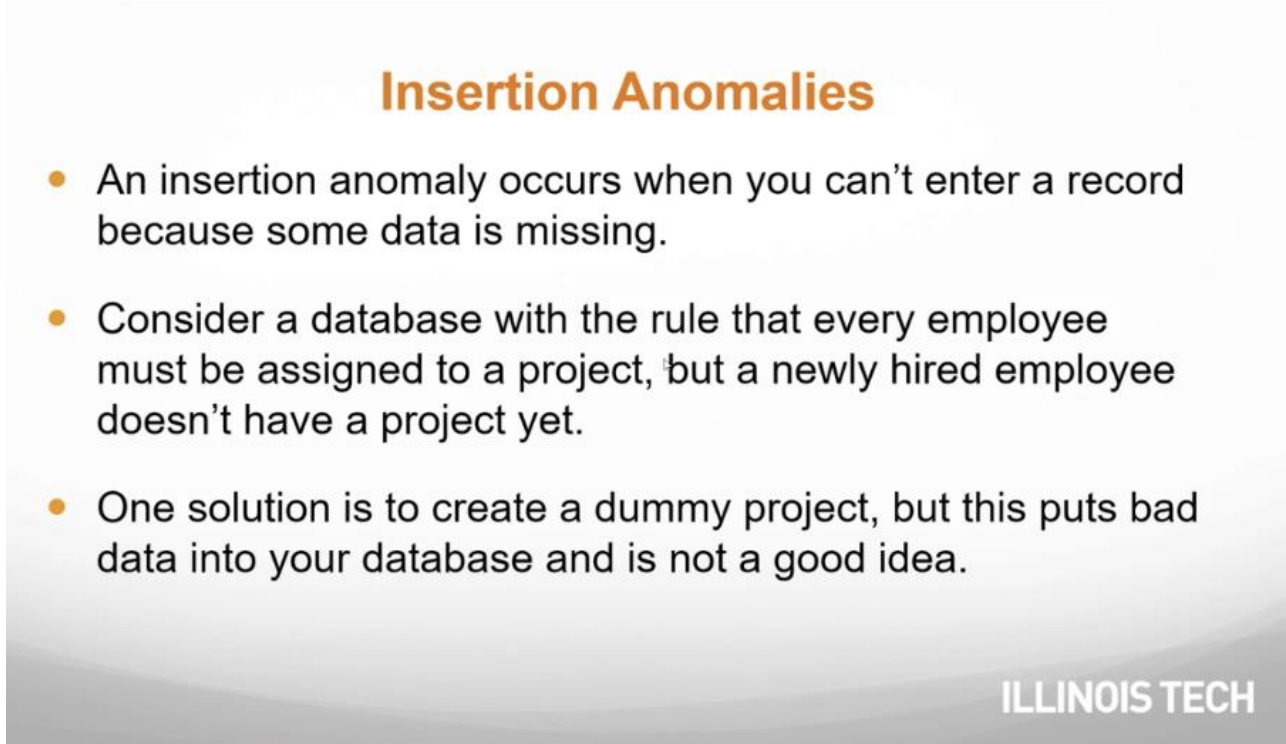
Technical Visuals

Visuals that organize information into a predictable structure, such as rows, columns, sections, or connected elements.

Text-Only Visuals

Factors to Consider:

Main message rather than repeating each bullet point. Be mindful to use the extended description to add key examples or to explain the lesson.



Text-Only Writing Templates

Alt Text

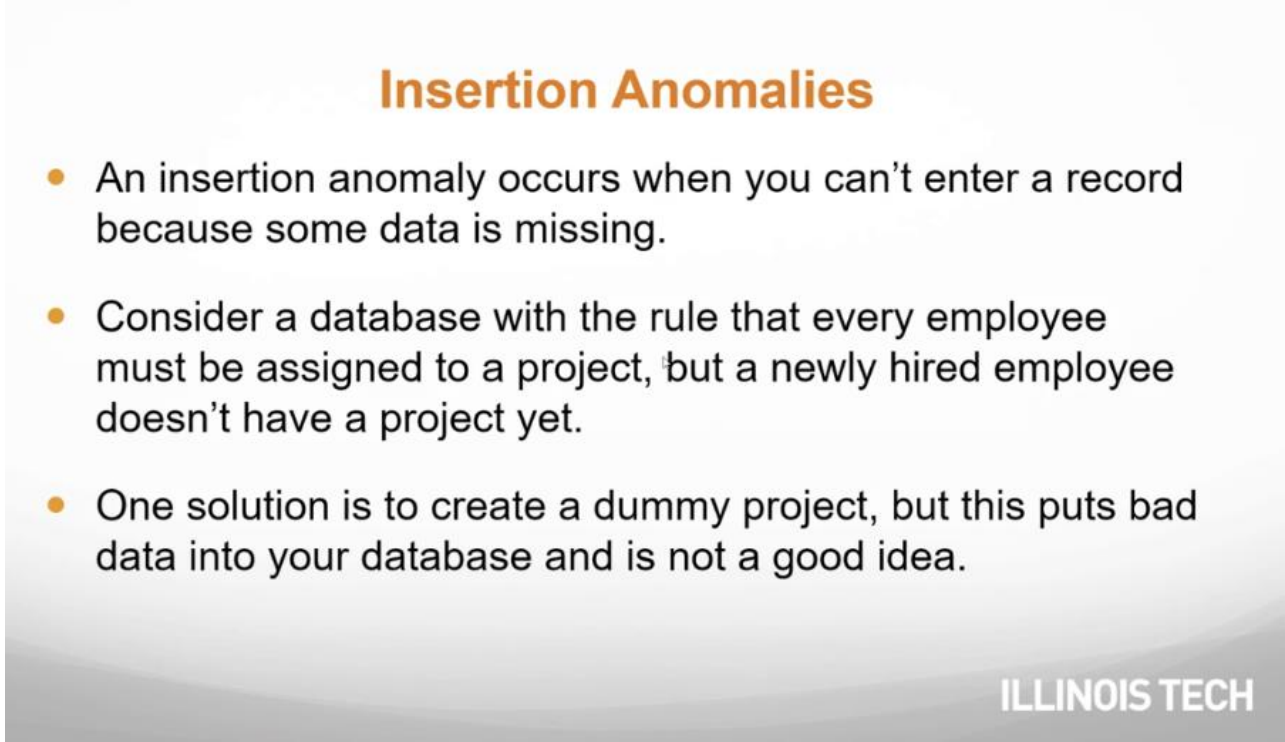
{Slide title or concept} explains {overall topic}.

Extended Description

{The first bullet point summarizes {main idea}}.

{The second bullet point explains {main idea}}.

{The third bullet point describes {main idea}}.



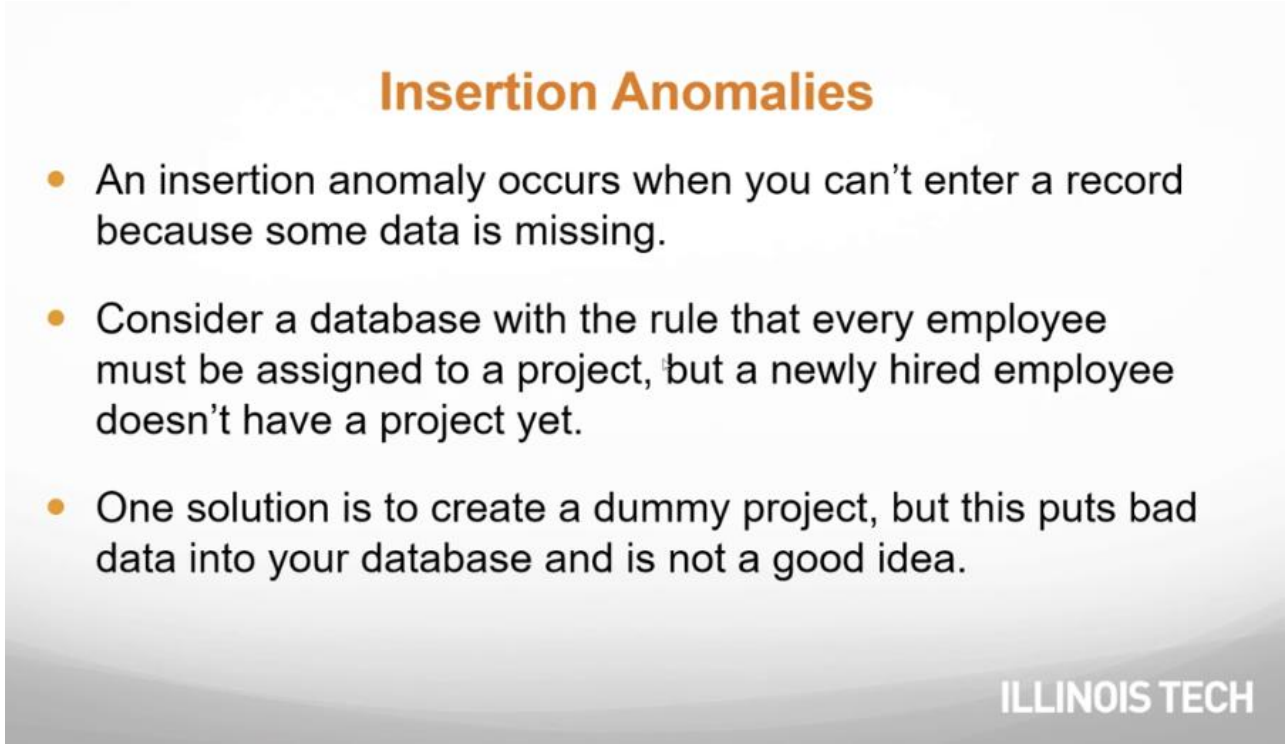
If We Focus On Slide Topic

Alt Text

The "Insertion Anomalies" slide explains why insertion anomalies occur in a database.

Extended Description

When missing required data can prevent new records from being added. A dummy record may solve the problem temporarily but introduces inaccurate data.



Data Visualizations – Tables

Factors to consider:

Explain what the table is about and what the rows and columns represent.

To describe data details

Describe the trend, including headers, units, or installed in the table, when they are important for understanding the data.

Best Buy

Bi-Weekly Sales Store 2901 -- 75" LED Televisions

	Quantity Sold			Cumulative QTY Sold			
Date	LG	Sony	Samsung	Date	LG	Sony	Samsung
5/1/2023	8	4	5	May-01	8	4	5
5/15/2023	4	0	11	May-15	12	4	16
5/29/2023	2	1	10	May-29	14	5	26
6/12/2023	9	0	5	Jun-12	23	5	31
6/26/2023	7	0	4	Jun-26	30	5	35
7/10/2023	4	3	8	Jul-10	34	8	43
7/24/2023	7	3	5	Jul-24	41	11	48
8/7/2023	6	3	9	Aug-07	47	14	57
8/21/2023	1	2	4	Aug-21	48	16	61
9/4/2023	8	0	11	Sep-04	56	16	72
9/18/2023	2	6	7	Sep-18	58	22	79
10/2/2023	10	11	7	Oct-02	68	33	86
10/16/2023	10	5	2	Oct-16	78	38	88
10/30/2023	9	8	3	Oct-30	87	46	91
11/13/2023	7	5	4	Nov-13	94	51	95
11/27/2023	2	11	3	Nov-27	96	62	98

Tables Writing Templates

Alt Text

{columns × rows if needed} "{title}" table showing {overall topic or relationship}

Extended Description

Columns include {column names}.

Rows include {row names if meaningful}.

Insert table if needed.

{table}.

Best Buy

Bi-Weekly Sales Store 2901 -- 75" LED Televisions

	Quantity Sold			Cumulative QTY Sold			
Date	LG	Sony	Samsung	Date	LG	Sony	Samsung
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7/10/2023	4	3	8	Jul-10	34	8	43
7/24/2023	7	3	5	Jul-24	41	11	48
8/7/2023	6	3	9	Aug-07	47	14	57
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11/27/2023	2	11	3	Nov-27	96	62	98

If We Focus On Data Analysis

Alt Text

"Best Buy Sales" table compares bi-weekly and cumulative TV sales totals for LG, Sony, and Samsung across 2023.

Extended Description

Samsung and LG finished neck-and-neck, with nearly 100 units sold each, while Sony finished last despite a massive sales surge late in the season.

Insert table if needed.

{table}.

Best Buy

Bi-Weekly Sales Store 2901 -- 75" LED Televisions

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If We Focus On Excel Design

Alt Text

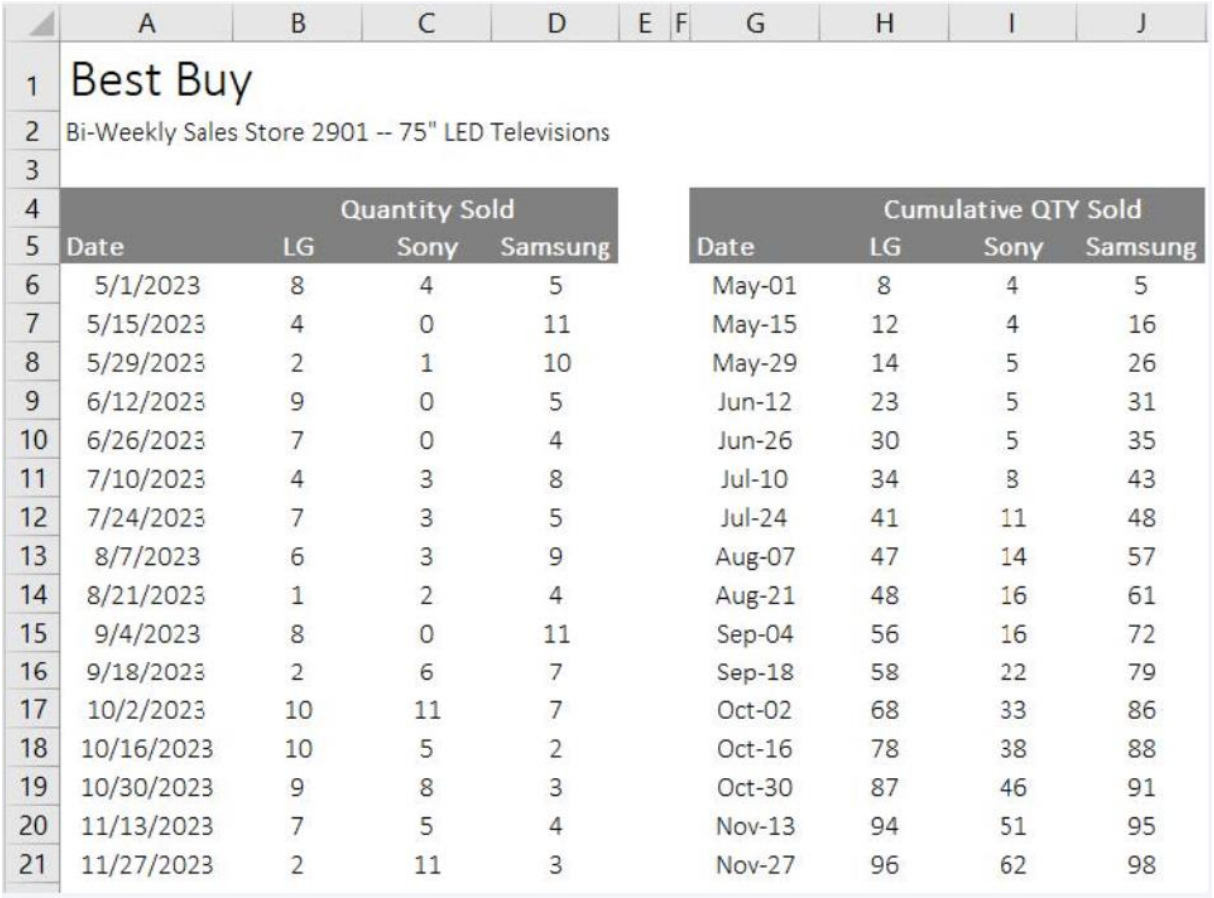
15×10 "Best Buy" spreadsheet layout comparing an isolated raw sales table on the left with a rolling sum table on the right.

Extended Description

Columns include specific dates and individual unit counts for three brands ,which parallel an identical set of columns showing running totals. Rows include 15 bi-weekly date entries.

Insert table if needed.

{table}.



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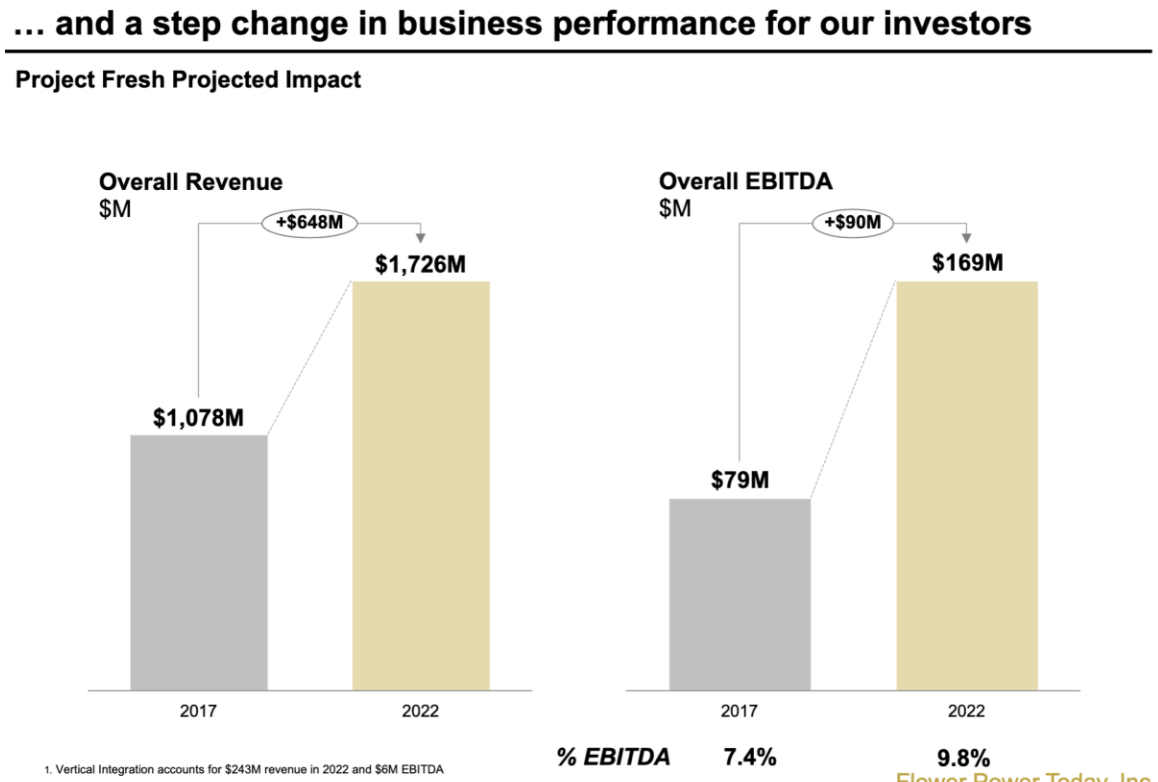
Data Visualizations – Bar Charts

Factors to Consider:

Emphasize comparison and ranking. State the categories being compared and the metric of measurement.

Looking for

- Highest, lowest, or most significant bars.
- The magnitude of the difference between them.



Bar Chart Writing Templates

Alt Text

"{title}" bar chart compares {categories}. highlights {main comparison}.

Extended Description

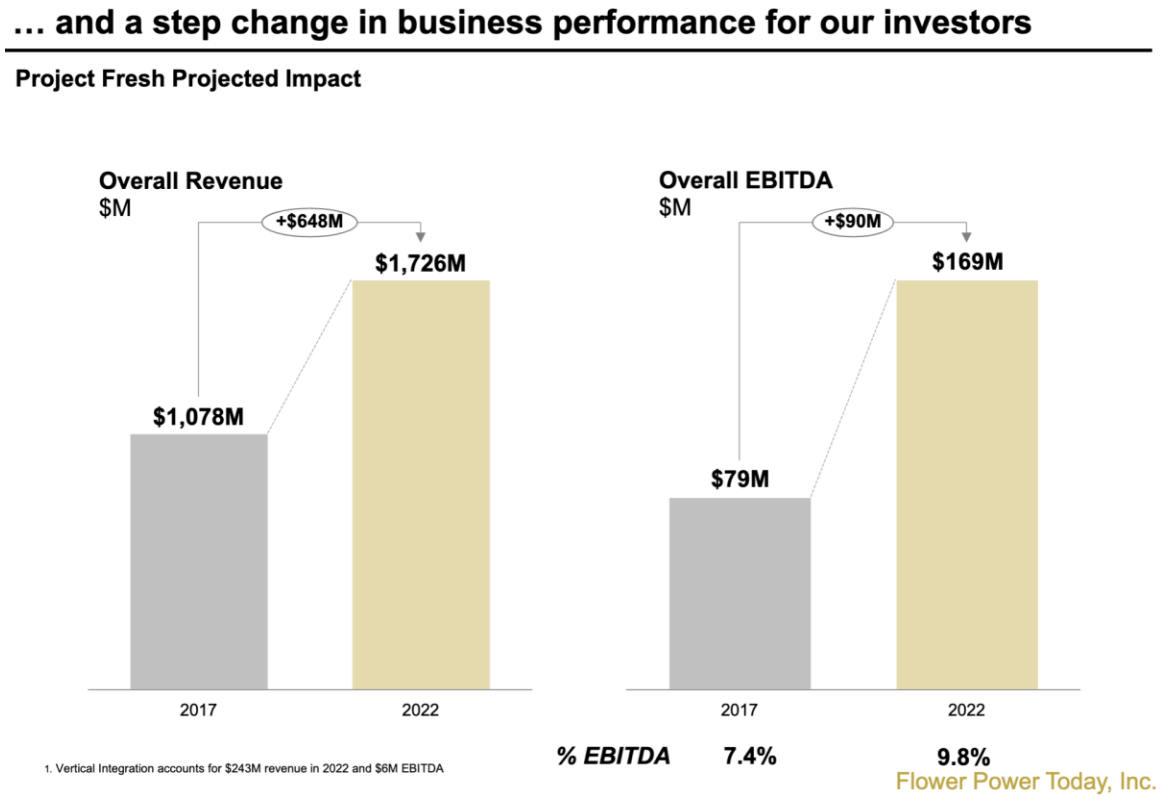
The horizontal/vertical axis represents { }.

The tallest \ shortest bar represents { }, {Adding Data if needed }.

Insert table if needed.

{table}.

.



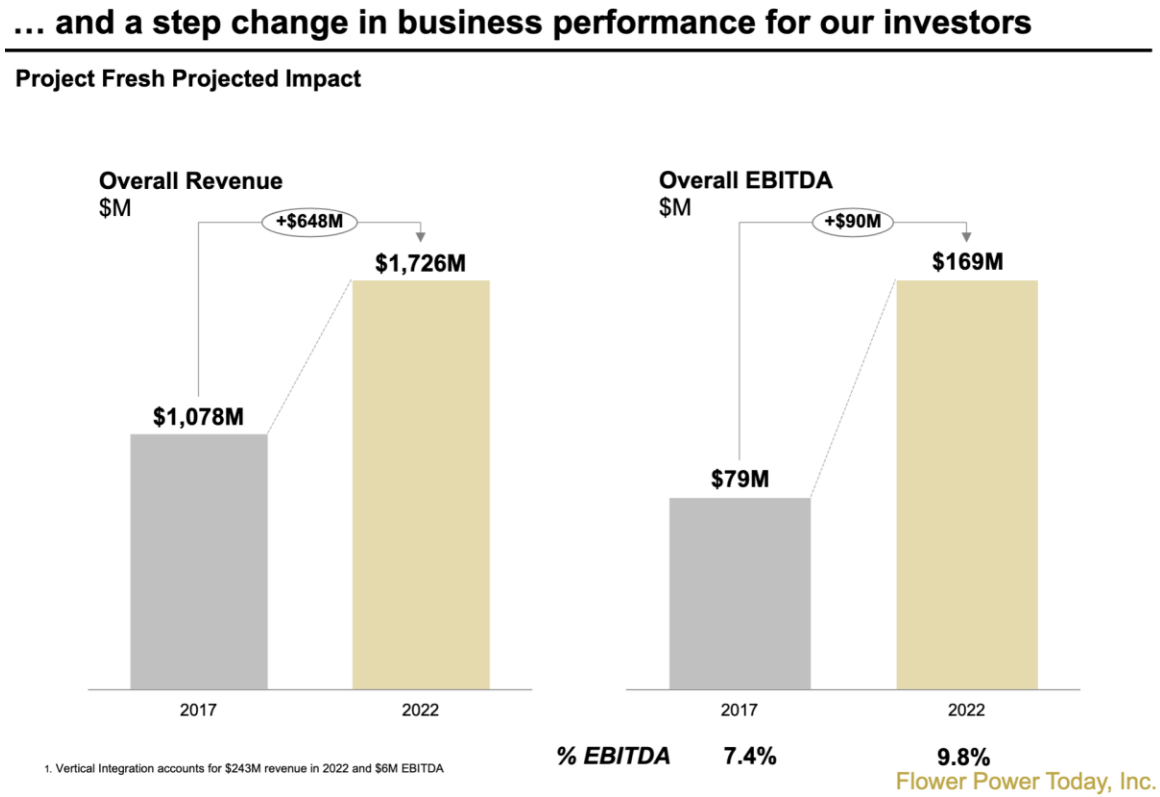
If We Focus On Chart Structure

Alt Text

Two side-by-side bar charts compare Project Fresh revenue and EBITDA in 2017 and 2022.

Extended Description

Each chart uses a gray bar for 2017 and a light gold bar for 2022, with value labels above the bars and an oval callout showing the amount of increase between the two years.



If We Focus On Business Impact

Alt Text

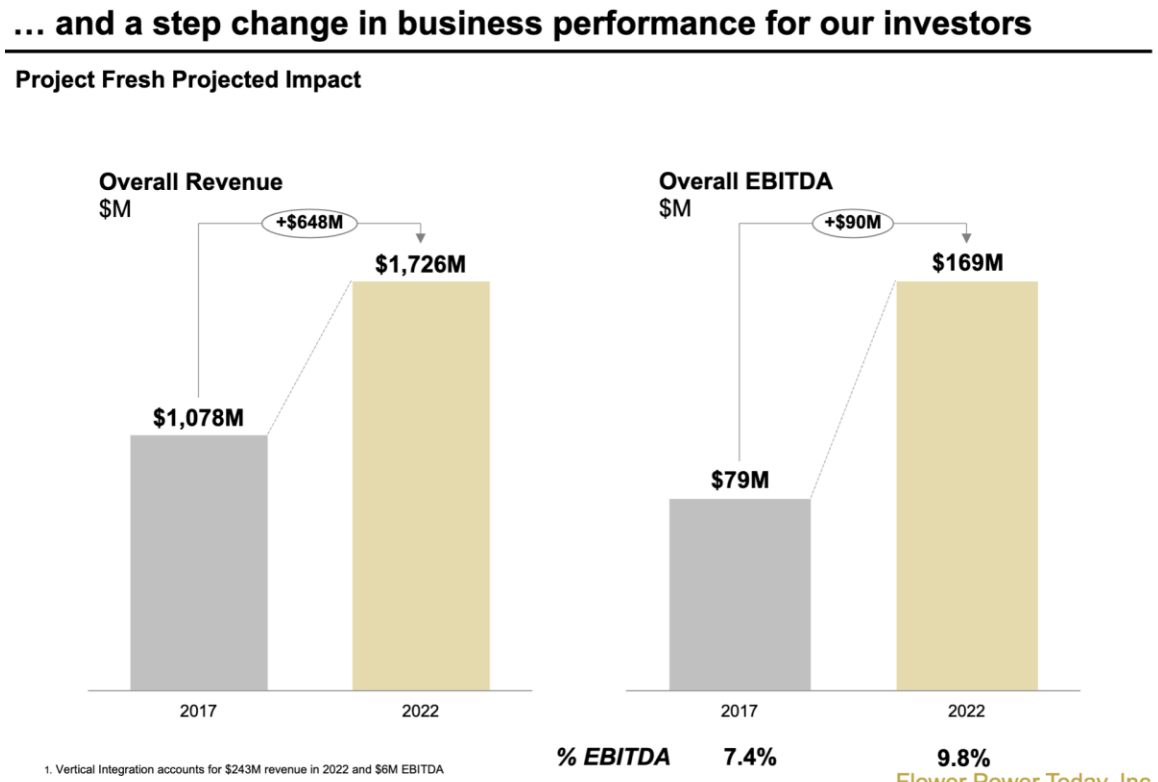
Two bar charts compare Project Fresh's performance in 2017 and 2022, showing increases in revenue and EBITDA.

Extended Description

Revenue rises from $1,078M to $1,726M and EBITDA rises from $79M to $169M, showing strong projected growth between 2017 and 2022.

Insert table.

{table}.



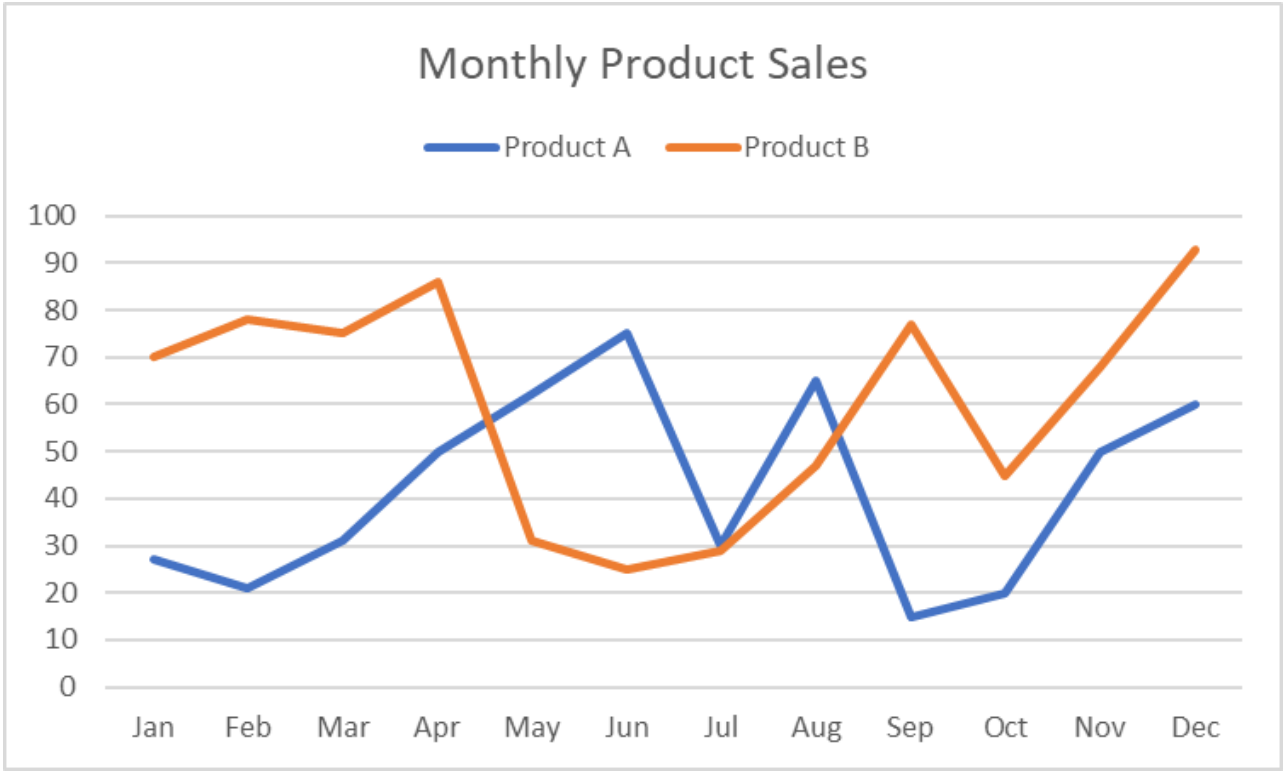
Data Visualizations – Line Charts

Factors to Consider:

Focus on the variables and the overall trajectory. Identify what the X and Y axes represent and the general trend.

Highlighting

- Critical inflection points
- Peaks
- Anomalies relevant to the lecture



Line Chart Writing Templates

Alt Text

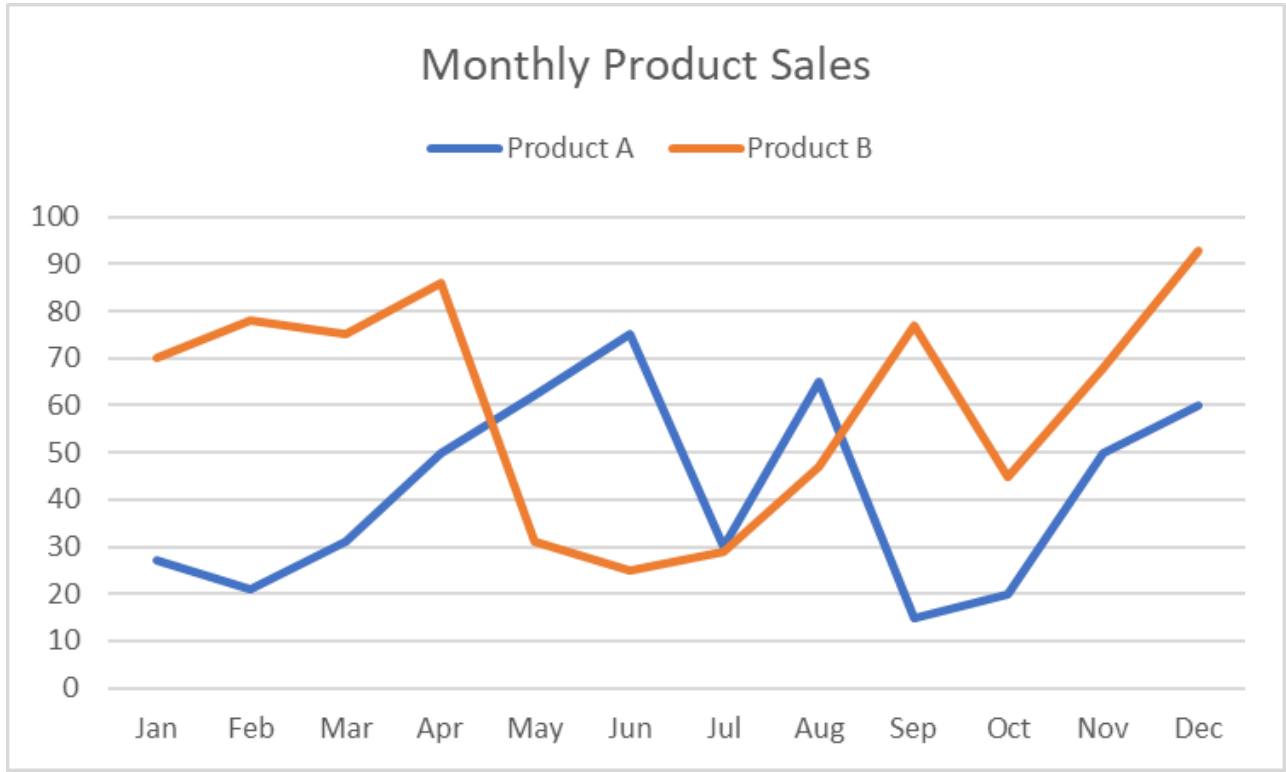
"{title}" line chart shows {main trend}.

Extended Description

plots {measured value} against {horizontal axis}. The line {increases, decreases, remains stable, or fluctuates}.

Insert table if needed.

{table}.



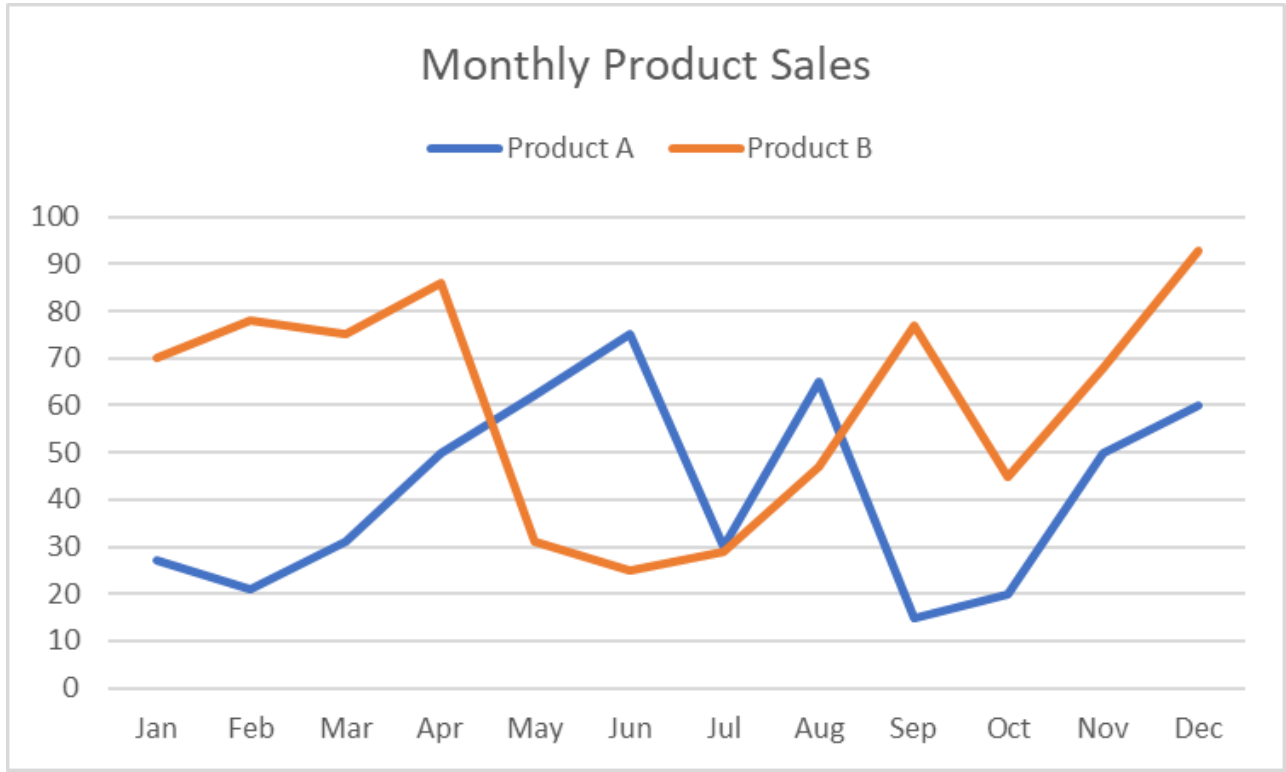
If We Focus On Product A

Alt Text

“Monthly Product Sales” line chart shows monthly sales trends for Product A and Product B from January to December.

Extended Description

Product A rises steadily through June, drops sharply in July, reaches its lowest point in September, and then increases again toward December.



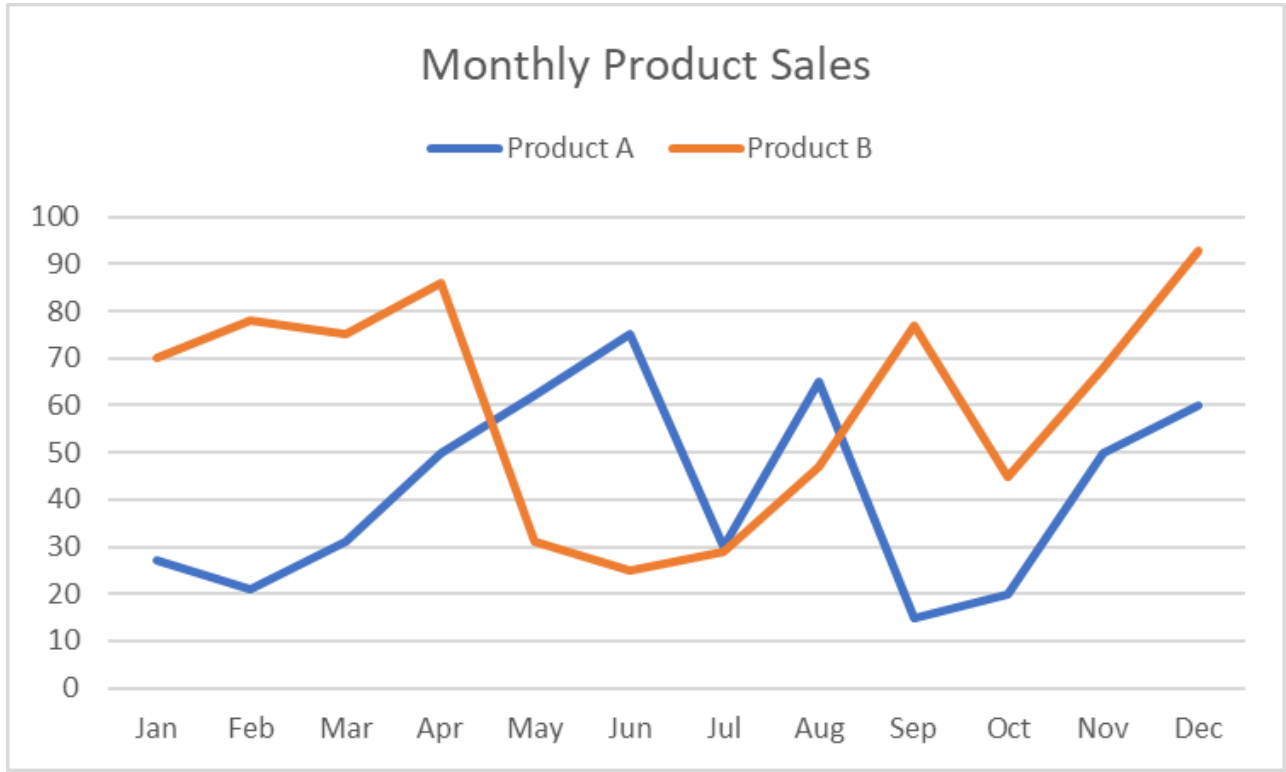
If We Focus On The Main Trend

Alt Text

“Monthly Product Sales” line chart shows monthly sales trends for Product A and Product B from January to December.

Extended Description

Both product lines fluctuate throughout the year, with Product B remaining higher for most months and reaching its highest value in December.



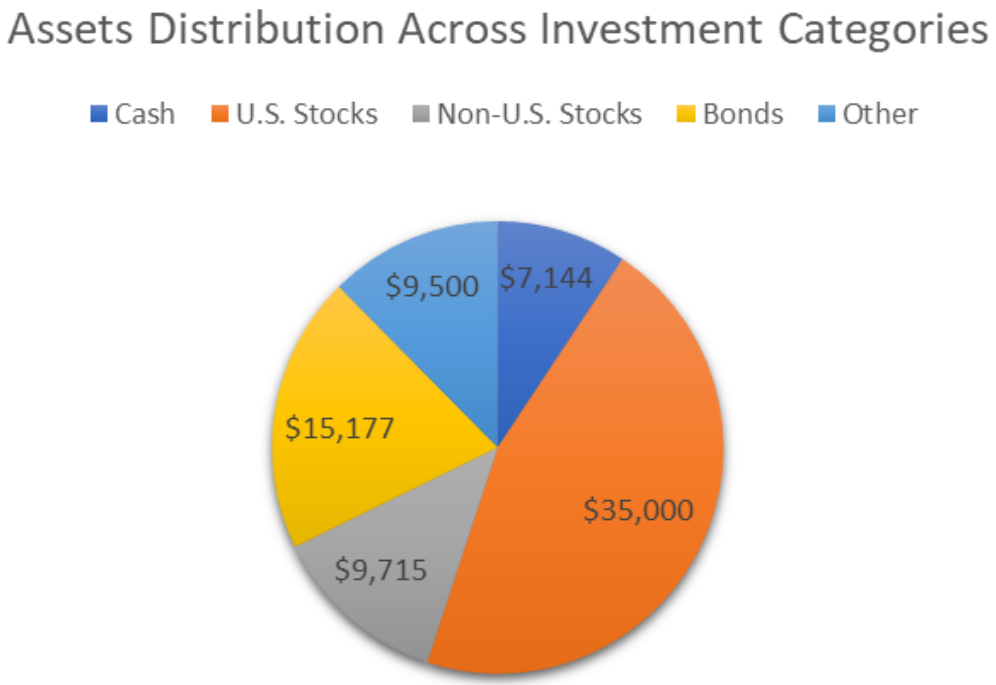
Data Visualizations – Pie Charts

Factors to Consider:

Highlight proportions and relationships to the whole. State the chart topic and identify the largest and smallest ".

Looking for

- Describe how the categories compare to each other
- Such as product A accounts for over half of total revenue



Pie Chart Writing Templates

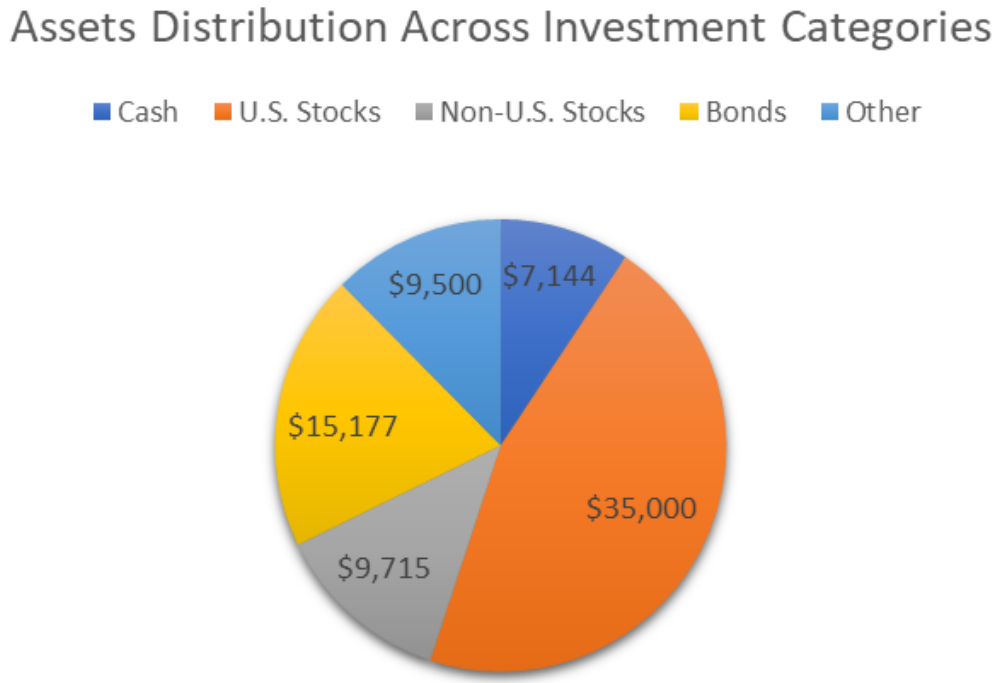
Alt Text

The pie chart illustrates how {topic/title} is divided among {number, if needed} segments.

Extended Description

The categories included {segment 1}, {segment 2}, {segment 3}, and {segment 4}.

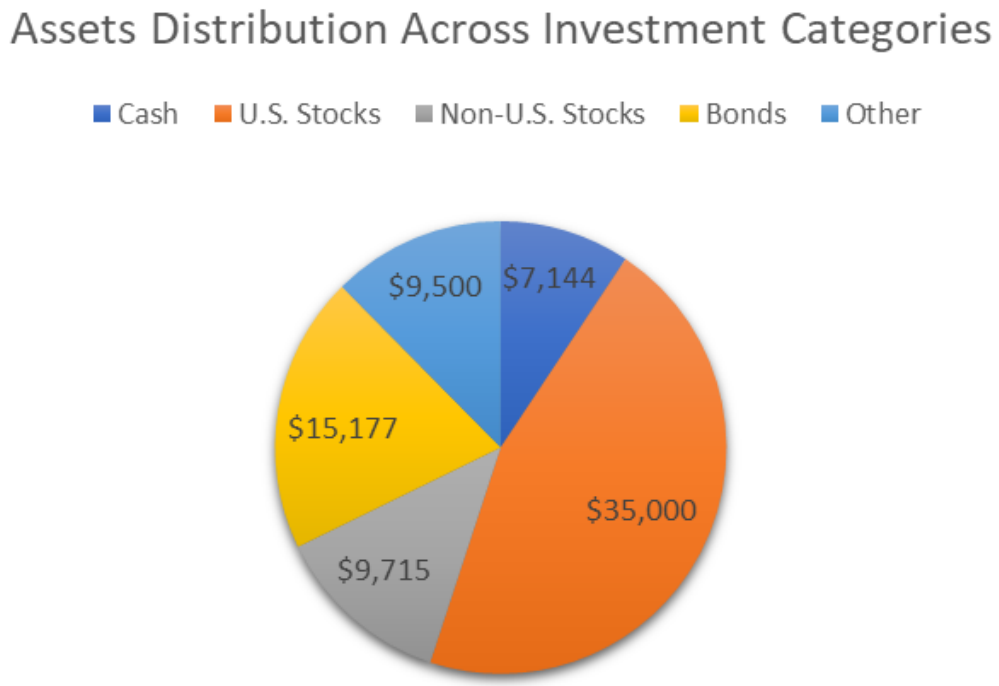
{Largest\second\smallest segment} has the largest share at {percentage},



If We Focus On Largest Segment

Alt Text

The pie chart illustrates how assets are distributed across five investment categories. U.S. Stocks make up the largest portion of the portfolio at $35,000.



If We Focus On Pie Chart Segments

Alt Text

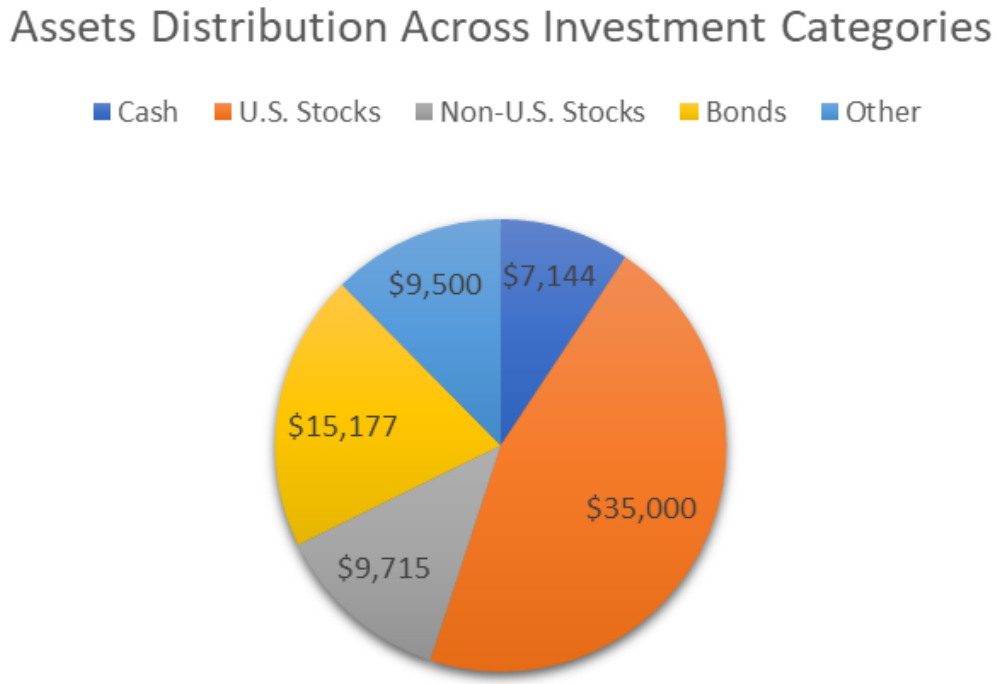
The pie chart illustrates how assets are distributed across five investment categories, with their corresponding dollar values labeled.

Extended Description

The chart contains five segments representing Cash, U.S. Stocks, Non-U.S. Stocks, Bonds, and Other.

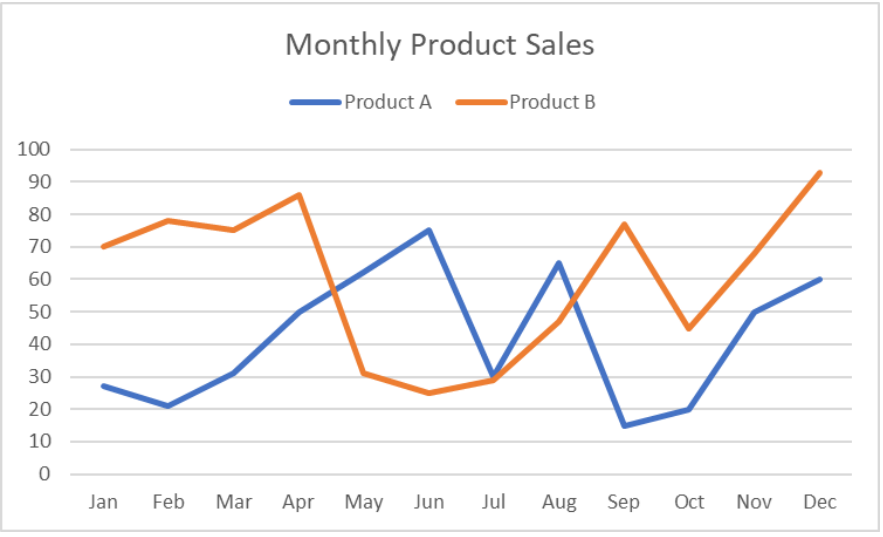
Insert table.

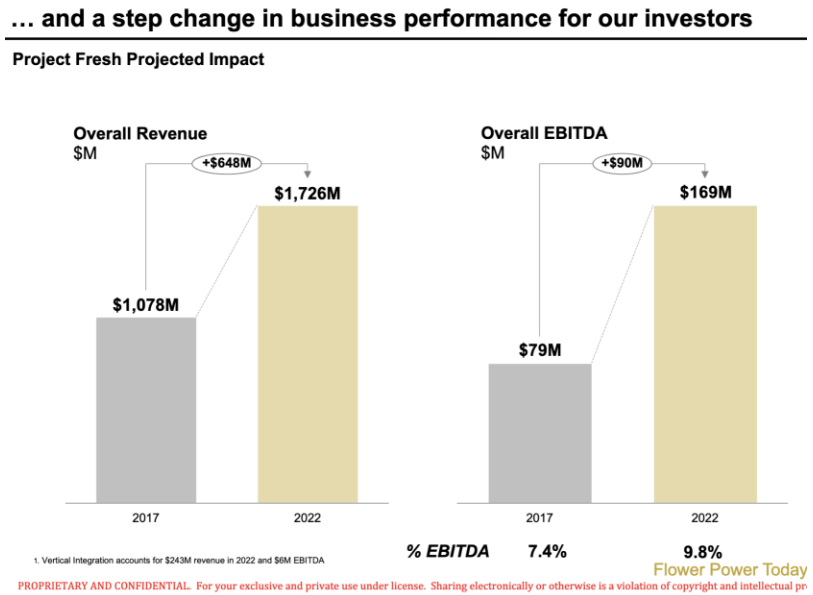
{table}.

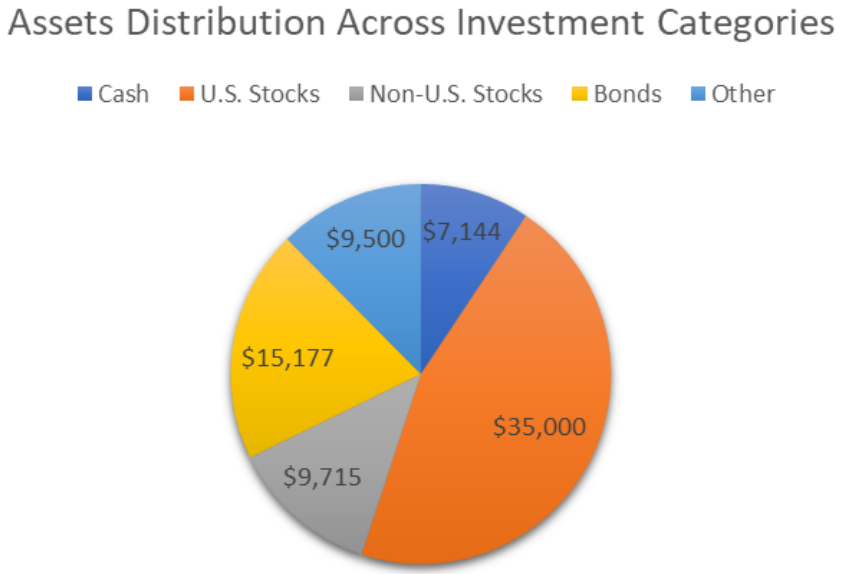


Presenting Detailed Data

If needed, adding a table to most graphs or data-related visuals can explain the data in detail.







Diagrams & Infographics

Factors to Consider:

Focus on how information flows, where it starts, the direction of the arrows, and the final result.

For complex diagrams

Group complex pieces of information into smaller, bite-sized sections so the listener does not get confused.

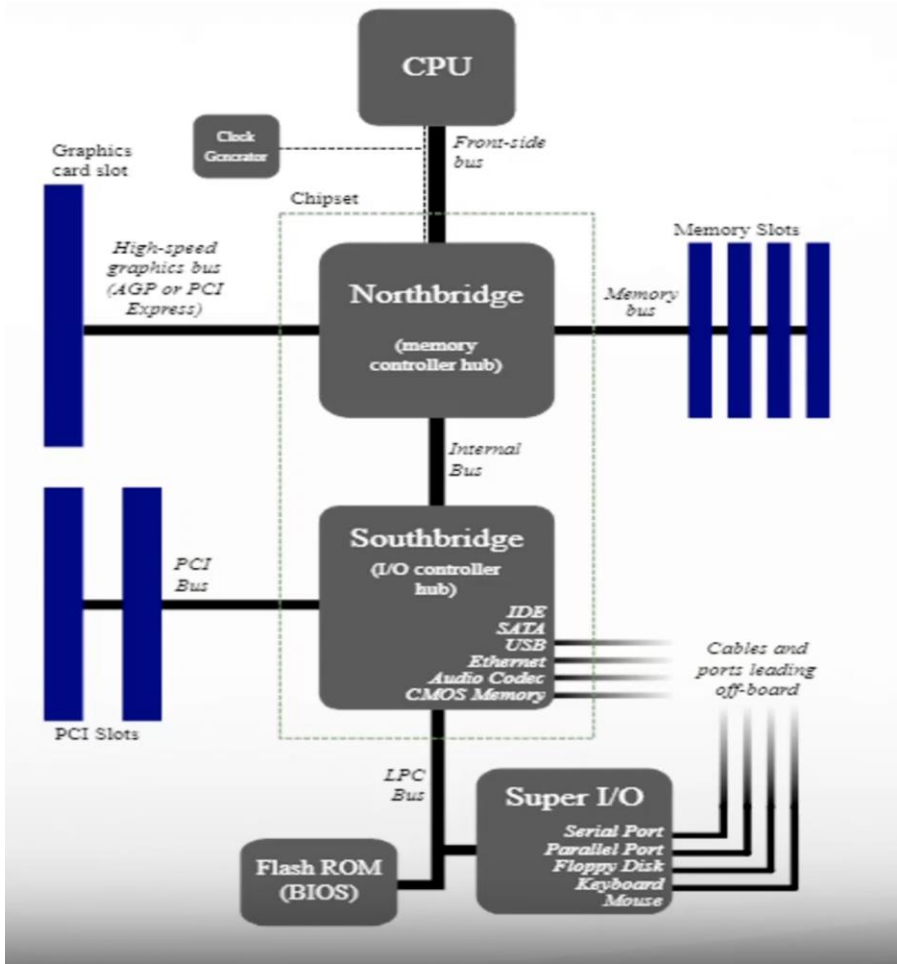


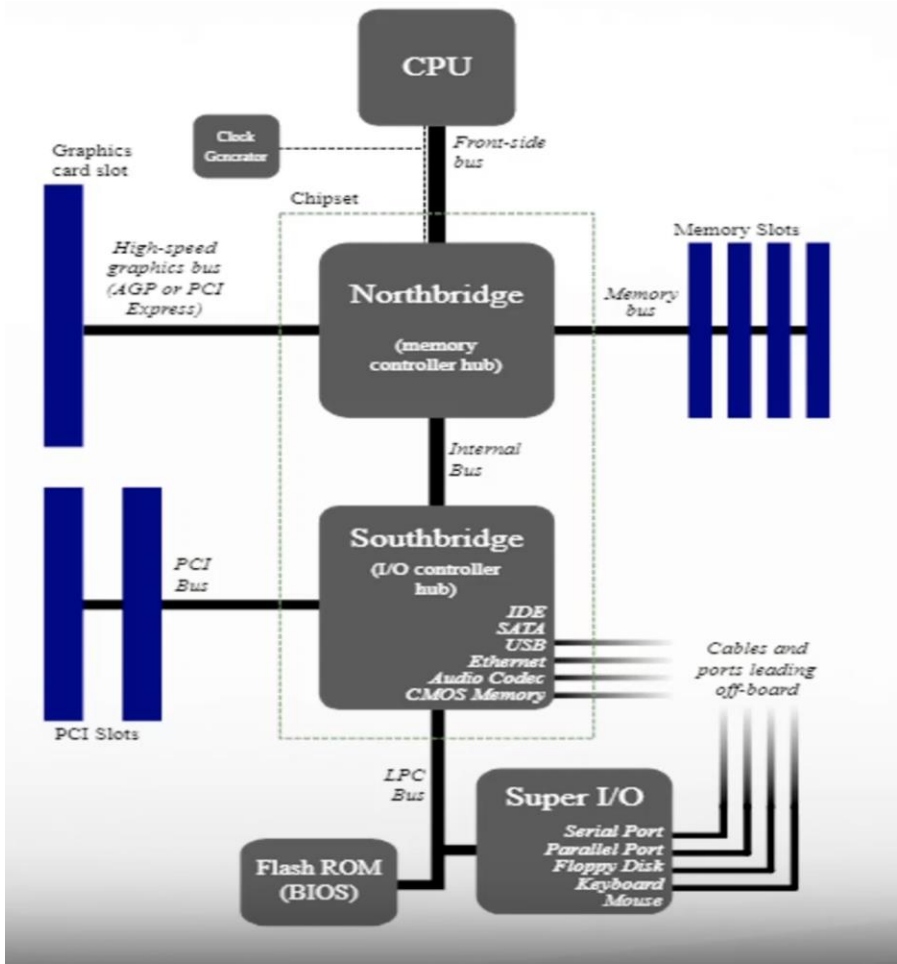
Diagram Writing Templates

Alt Text

{overall concept}. Major sections include {Section A}, {Section B}, and {Section C}. The process progresses from {starting} to {ending}.

Extended Description

Arrows, connectors, or labels indicate {relationships or sequence}.



If We Focus On Hardware Architecture

Alt Text

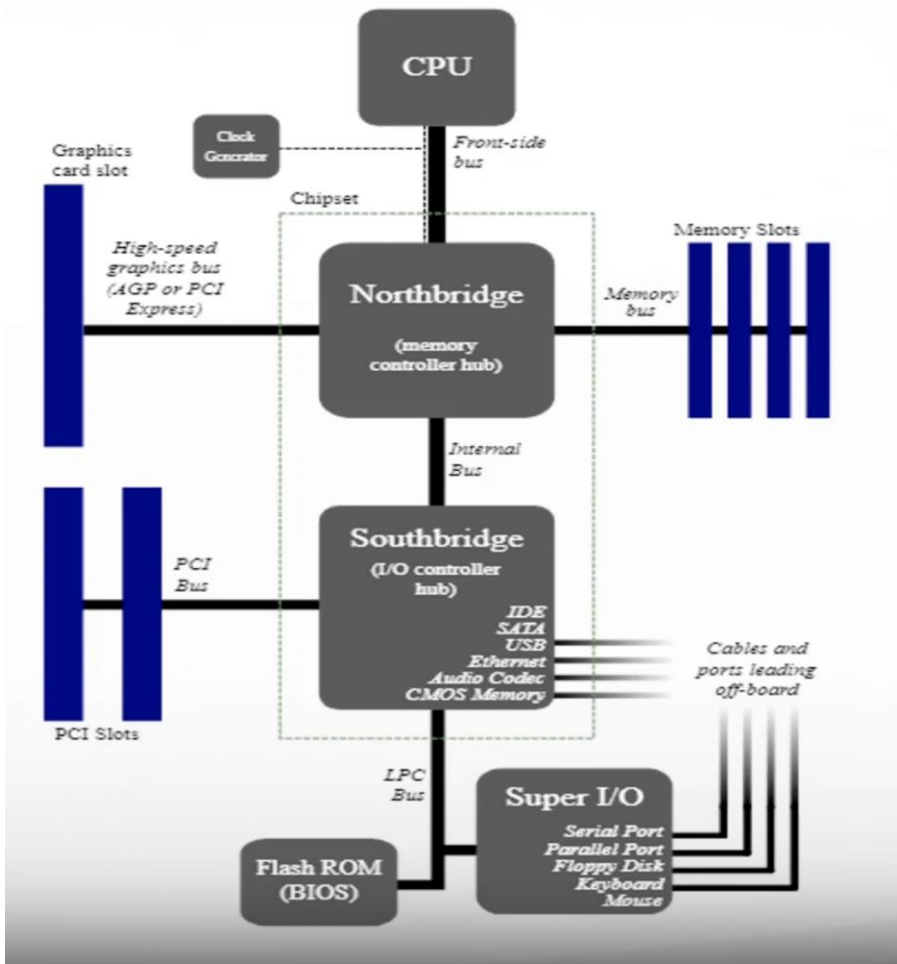
Motherboard architecture showing CPU connection to Northbridge, Southbridge, and peripheral slots.

Extended Description

CPU connects directly to the Northbridge chip via the front-side bus for fast data sharing.

Northbridge then manages the Graphics card slot and Memory slots.

The Southbridge chip connects via an internal bus to handle PCI slots, BIOS, and ports for hard drives and USBs.



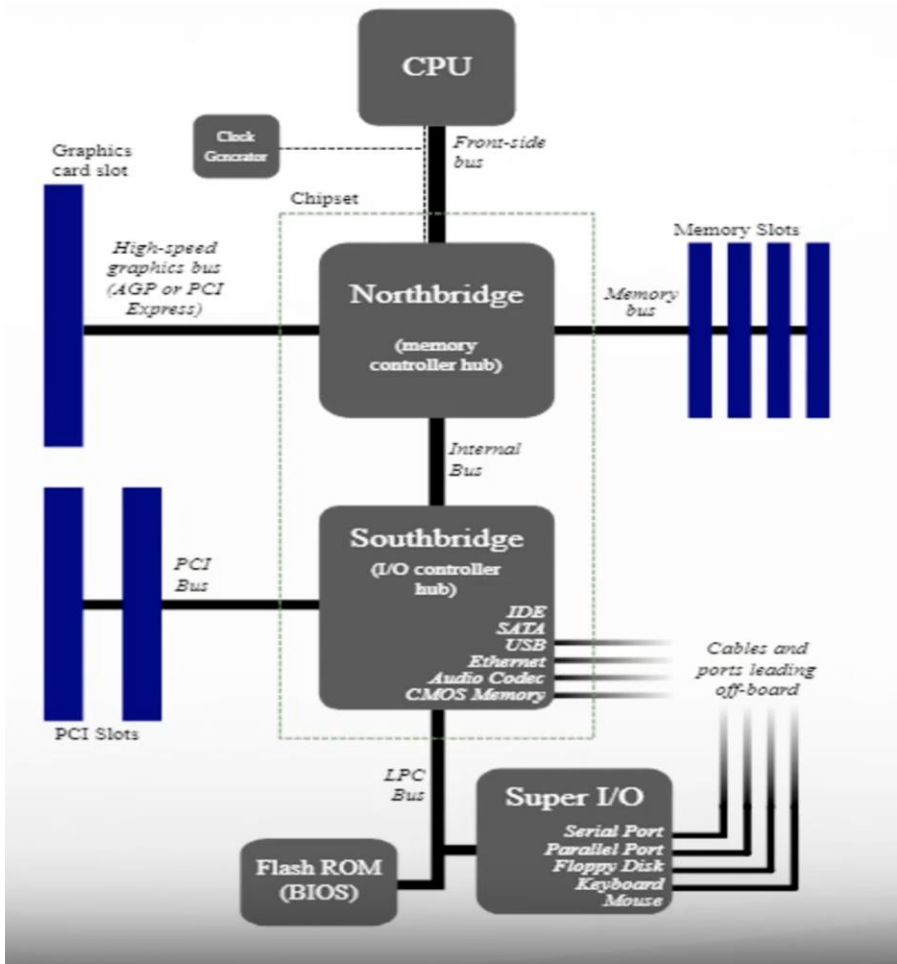
If We Focus On Computer Bus Design

Alt Text

Technical motherboard flowchart highlighting data buses such as the Front-side bus, Memory bus, PCI bus, and LPC bus.

Extended Description

It highlights specialized pathways including the Front-side bus for the CPU, the High-speed graphics bus, and the Memory bus leading to RAM slots.



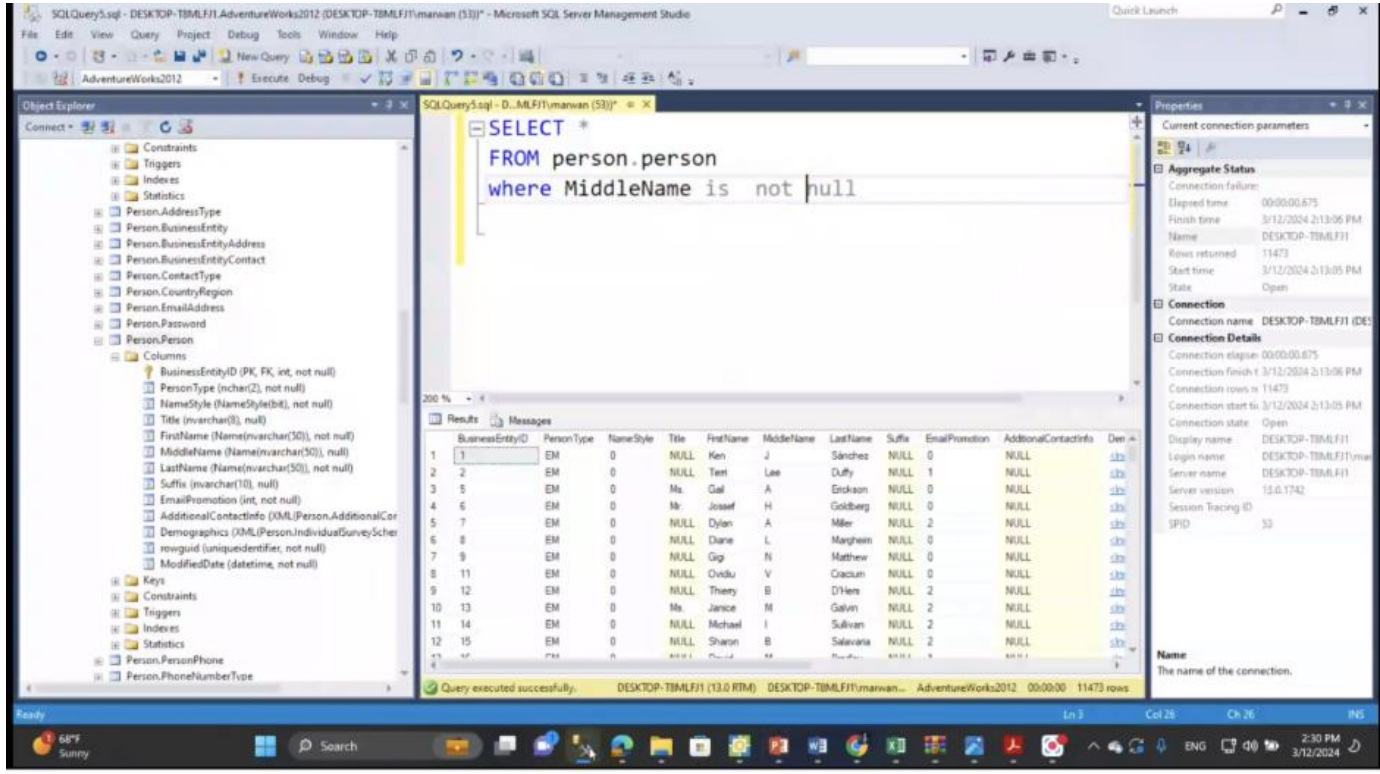
Software User Interface

Factors to Consider:

Focus on what the user needs to do on the screen. Describe the main menu layout and what buttons to click.

Working procedure is important

Skip unnecessary background details, such as desktop wallpapers or notifications that are not part of the lesson.



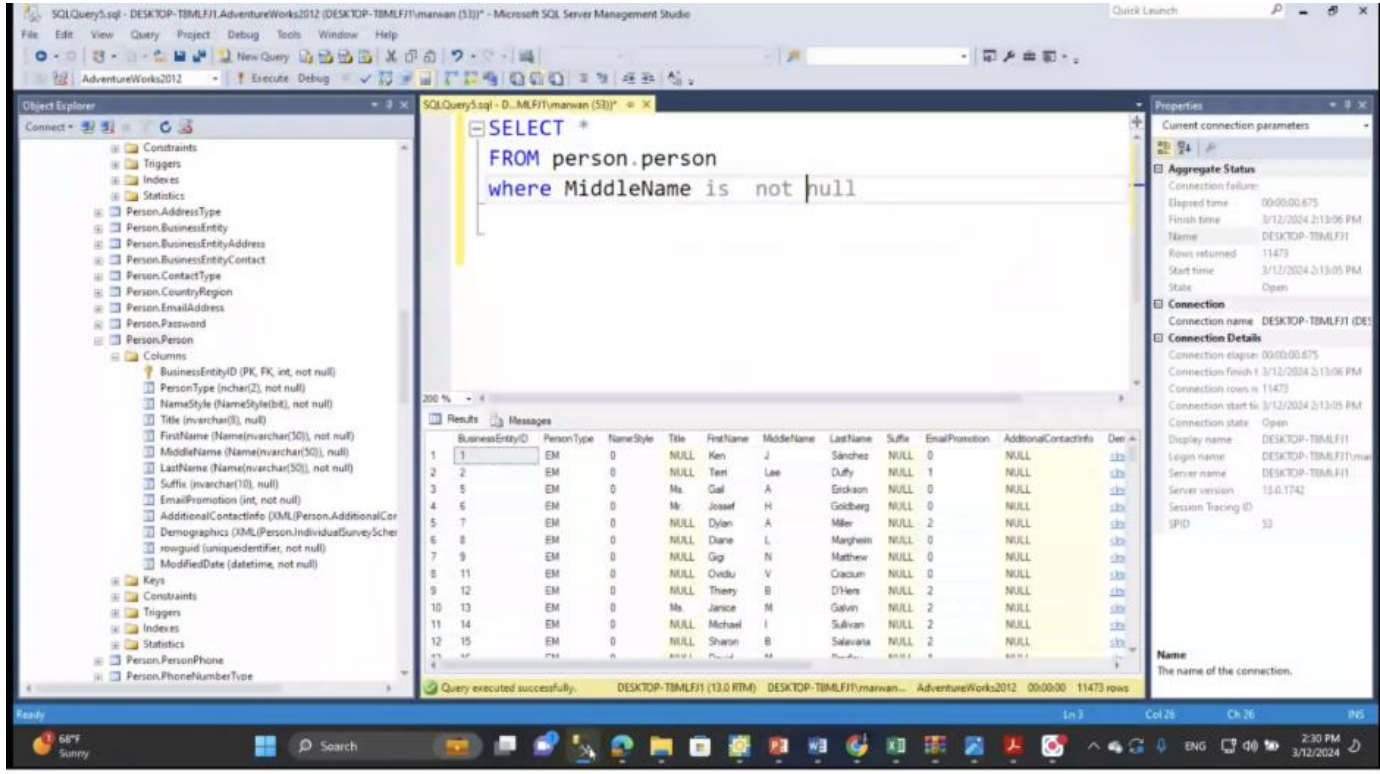
Software UI Writing Templates

Alt Text

{software name} interface is displayed. The layout includes {navigation/menu}, {main workspace}, and {sidebar or panels}.

Extended Description

The {active page or tab} is currently selected. Visible controls include {buttons, menus, icons, or input fields}. {Describe user interaction if applicable.}



If We Focus On User Interface Layout

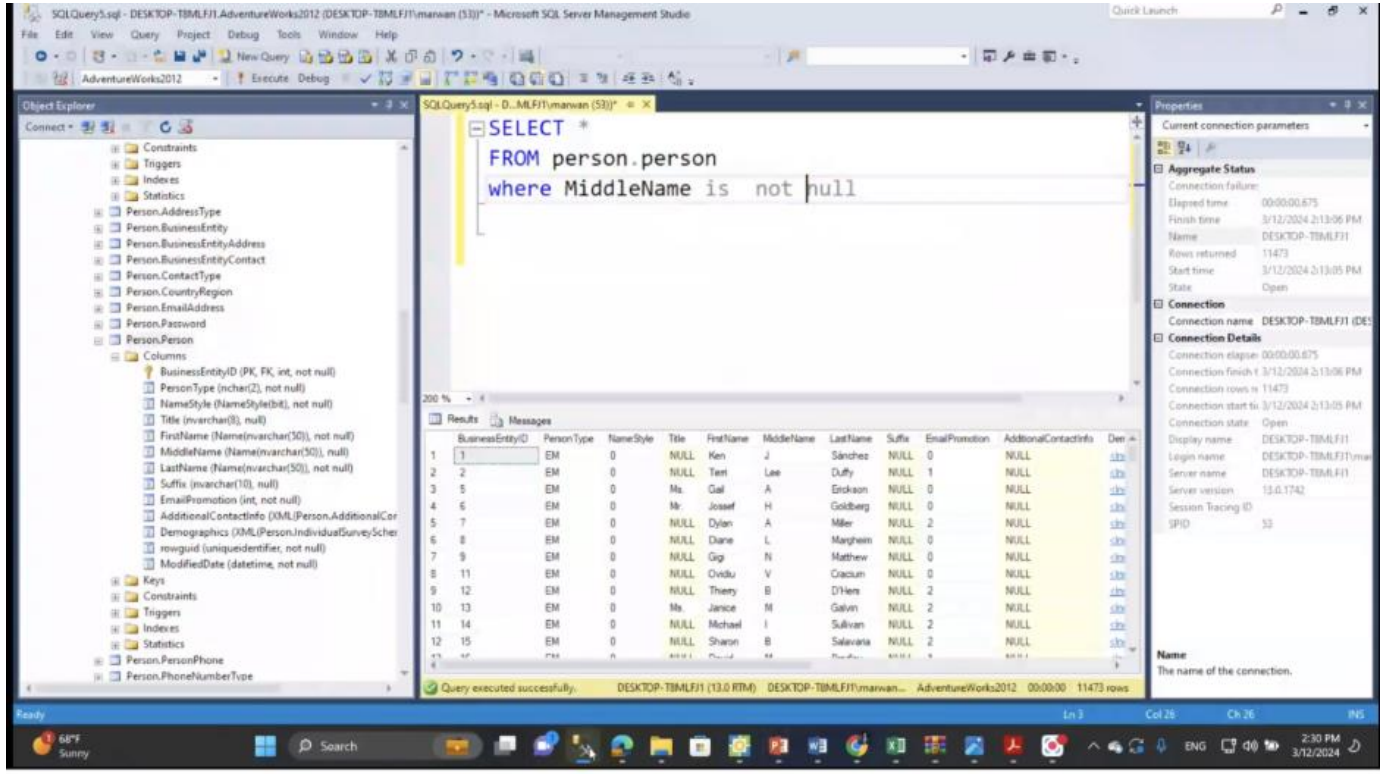
Alt Text

SQL Server Management Studio user interface showing a classic three-pane layout: Object Explorer tree, script editor, and Properties.

Extended Description

The Object Explorer tree shows technical details such as tables, columns, and data types.

The script editor is stacked on top of the data results panel, and the right column shows a dedicated Properties window that tracks current connection parameters.



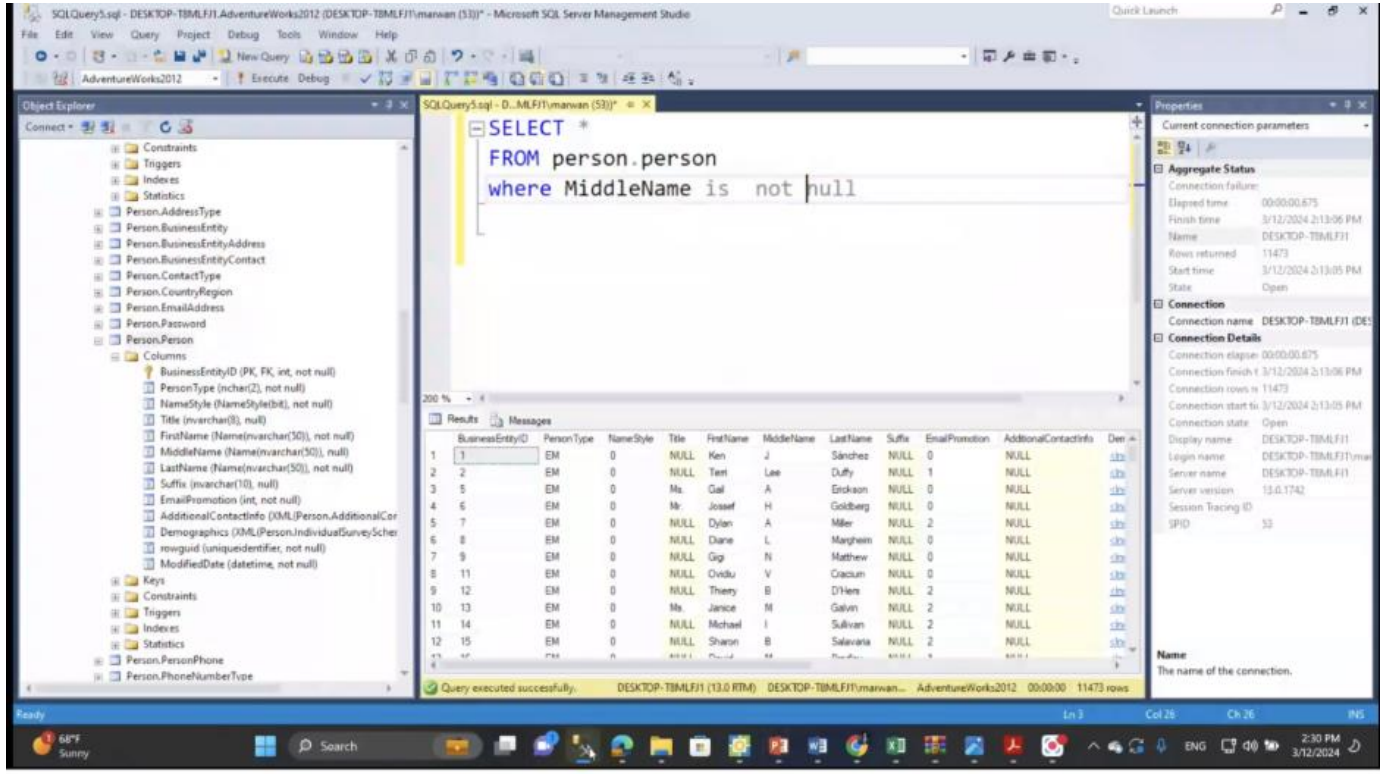
If We Focus On SQL Script

Alt Text

A SELECT query with a WHERE clause filtering non-null MiddleName values from the person.person table.

Extended Description

Query editor at the top displays the code: SELECT * FROM person. person WHERE MiddleName IS NOT NULL. The Results tab shows a spreadsheet-like grid with actual data columns, such as BusinessEntityID, FirstName, and MiddleName, that match this query.



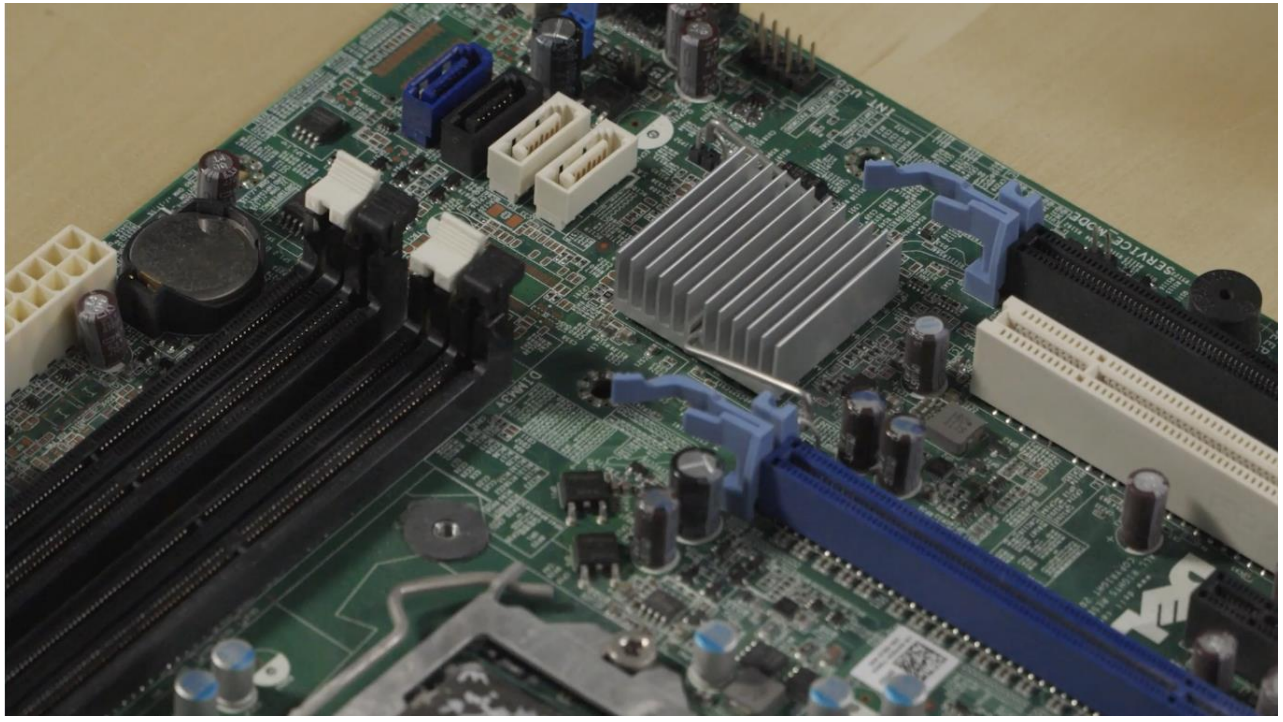
Physical Components & Equipment

Factors to Consider:

the overall shape and size, that what students need to know to recognizing the object.

For engineering class

Describe the exact parts, tiny labels, model numbers, and technical layout of the component.



Equipment Writing Templates

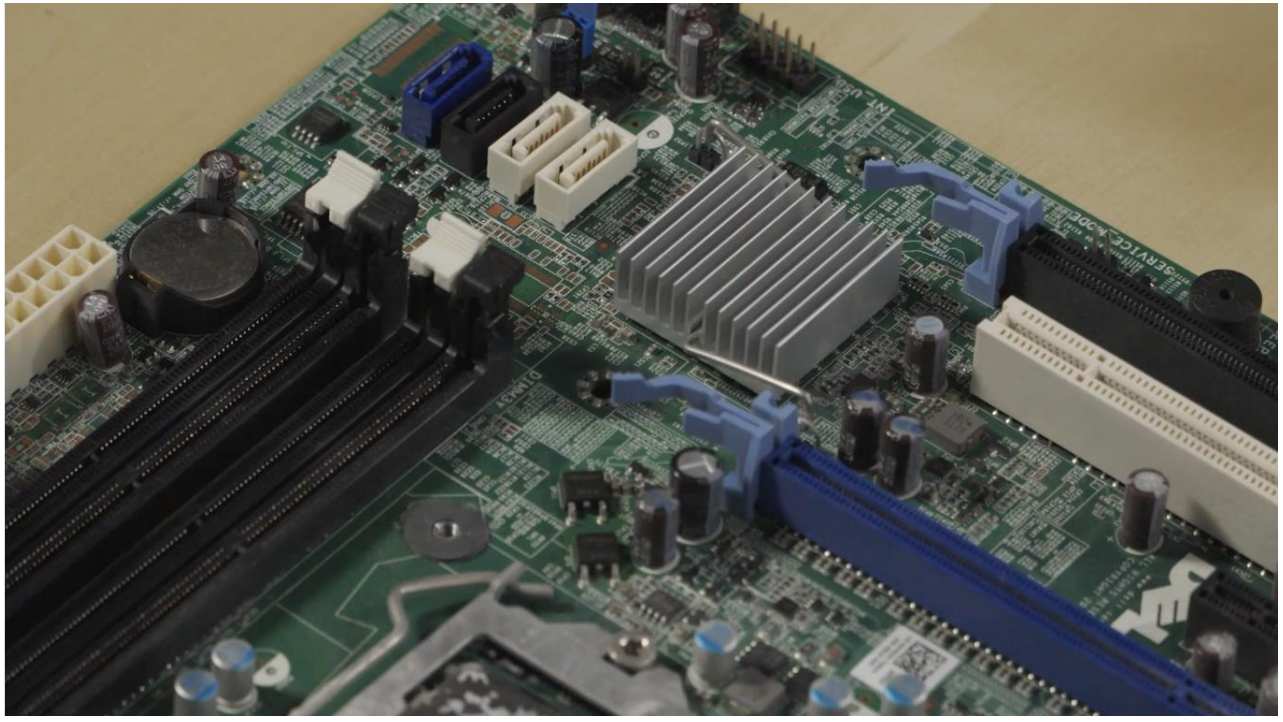
Alt Text

The {component name} is located {position relative to nearby components}.

Extended Description

It has a {shape}, {size}, and {appearance}.

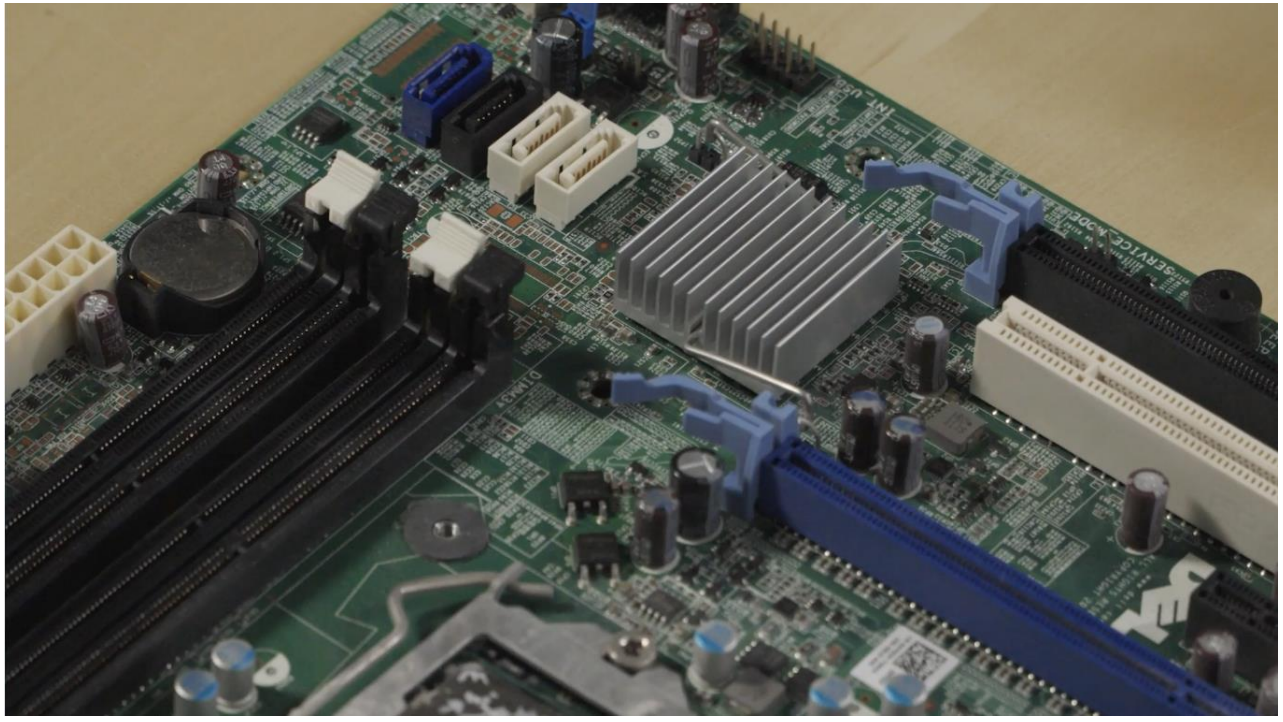
Distinguishing features include {connectors, pins, labels, ports, or markings}.



If We Focus On Identifying a Component

Alt Text

The image shows a motherboard with a heatsink installed over a chipset. The heatsink has a square base with multiple thin metal fins extending upward.



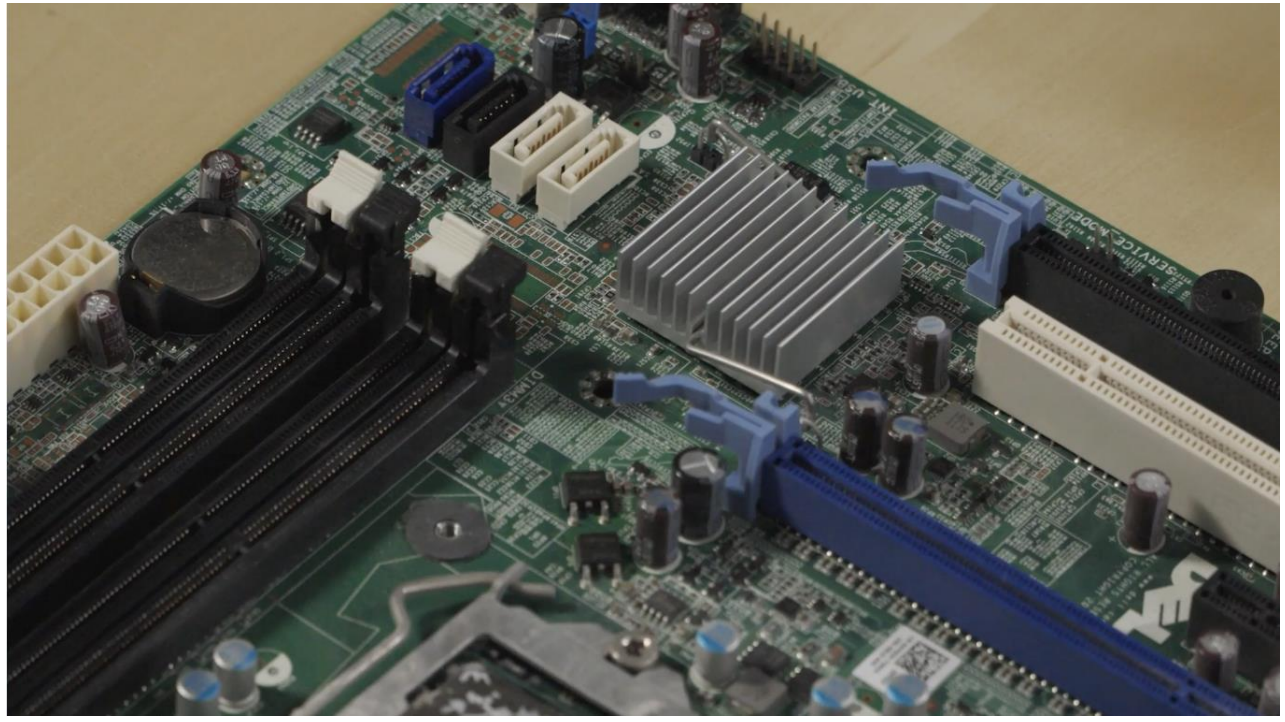
If We Focus On Overall Components

Alt Text

The image shows several major components on a computer motherboard.

Extended Description

Visible components include memory slots, a chipset heatsink, expansion slots, storage connectors, capacitors, and the CMOS battery.



Callouts

Factors to Consider:

Always explain the exact relationship between the pointer arrow and the specific part of the image it is targeting.

Focus on what the object

Connect the pointer to the object it is highlighting. Start by describing the main image, then list the labeled parts that support learning.

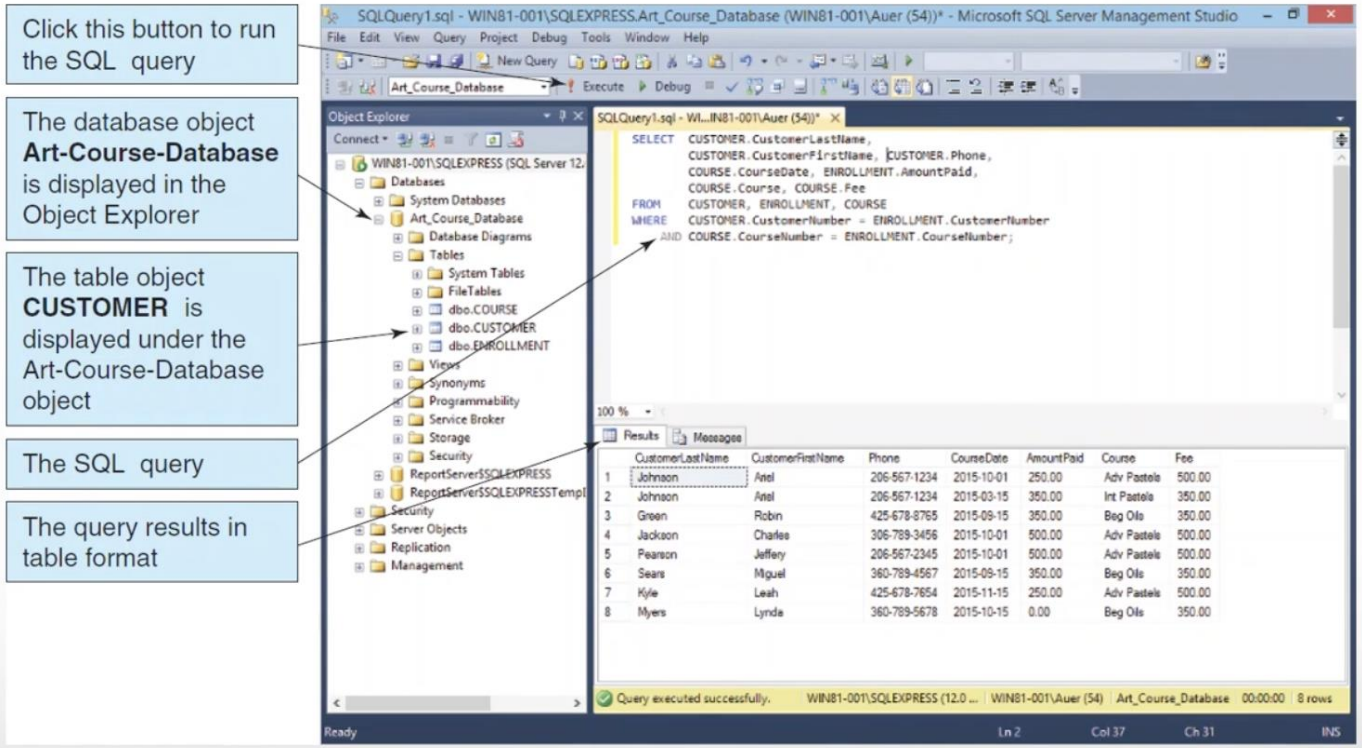


Figure 1-27 Microsoft SQL Server 2014

Callouts Writing Templates

Alt Text

{object or interface element} highlights {instructional purpose}.

Extended Description

It appears {location relative to the highlighted item} and displays {information shown}.

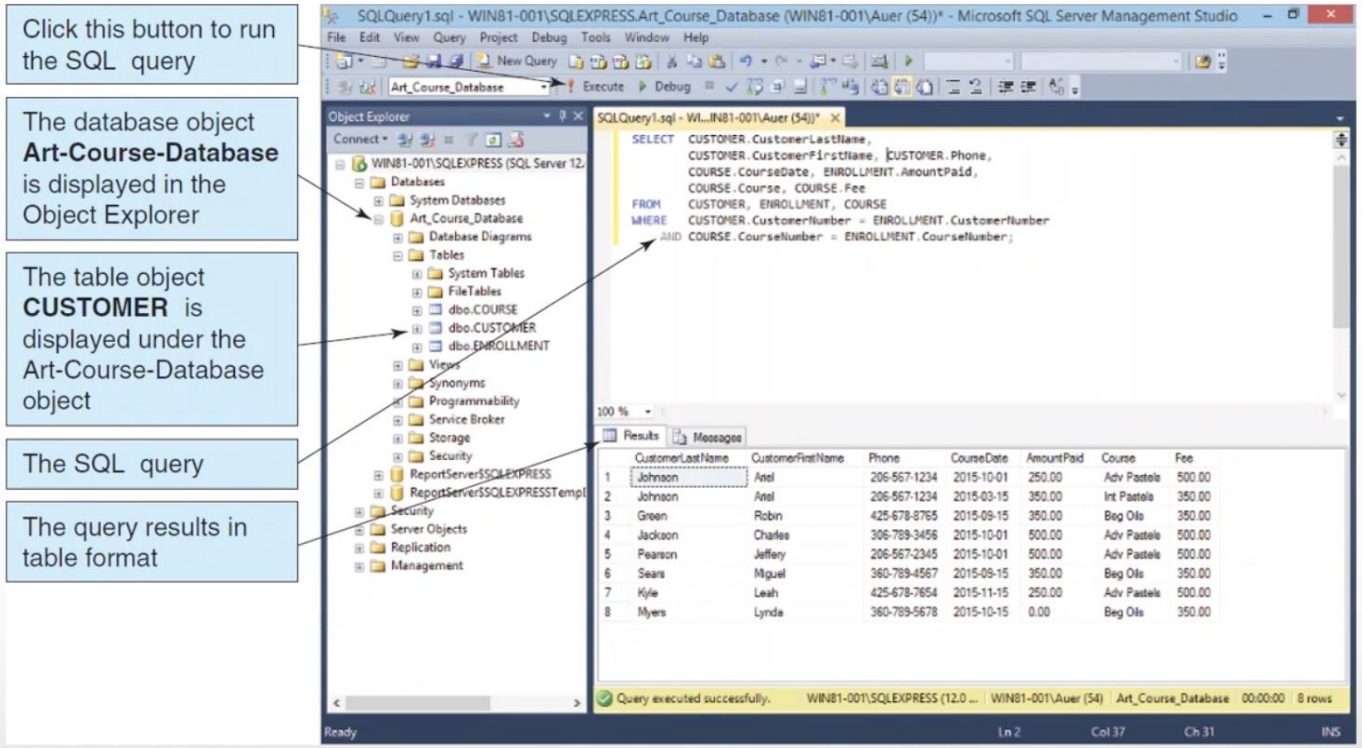


Figure 1-27 Microsoft SQL Server 2014

If We Focus On Overall Callouts

Alt Text

Callouts highlight the main parts of the Microsoft SQL Server interface.

Extended Description

Five callouts point to the Run Query button, the Art-Course-Database in the Object Explorer, the CUSTOMER table, the SQL query editor, and the query results displayed in a table.

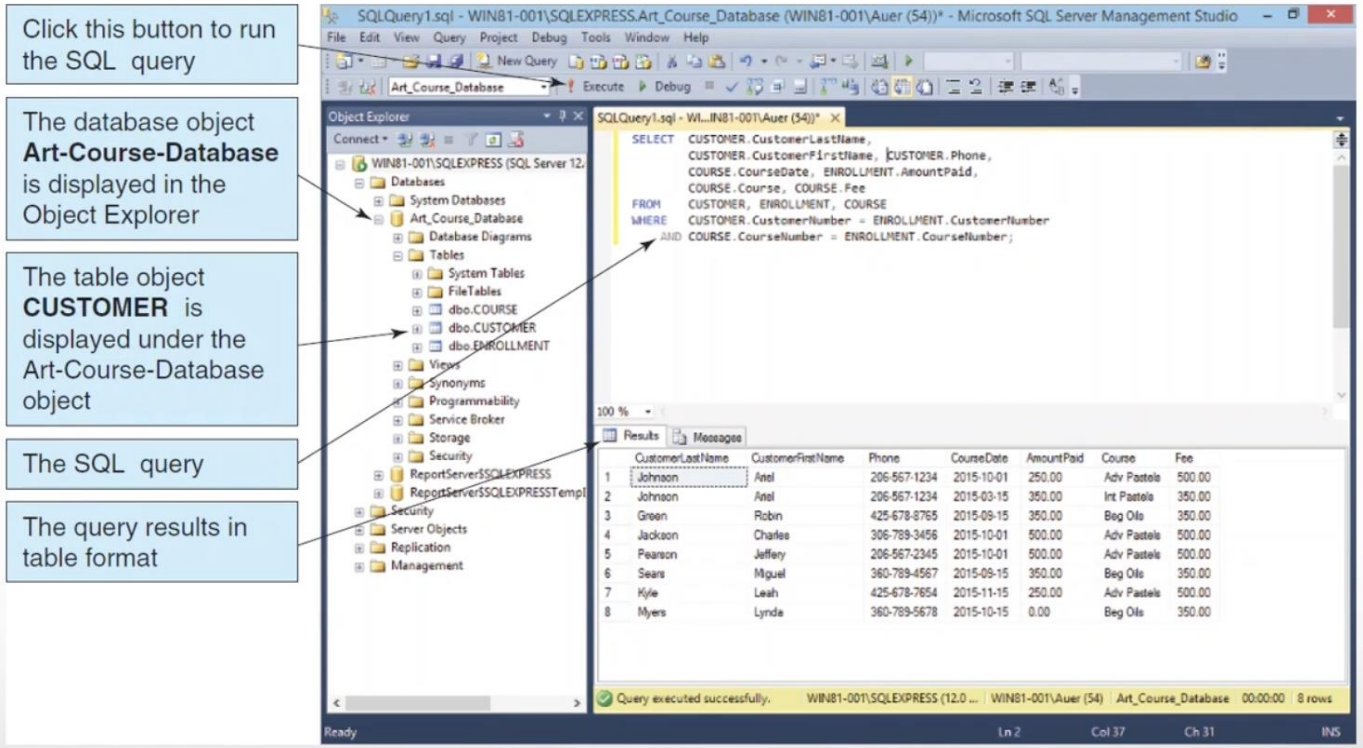


Figure 1-27 Microsoft SQL Server 2014

If We Focus On One Callout

Alt Text

A callout explains how to run a SQL query by selecting the Execute button.

Extended Description

The callout points to the Execute button on the toolbar and displays the instruction, "Click this button to run the SQL query."

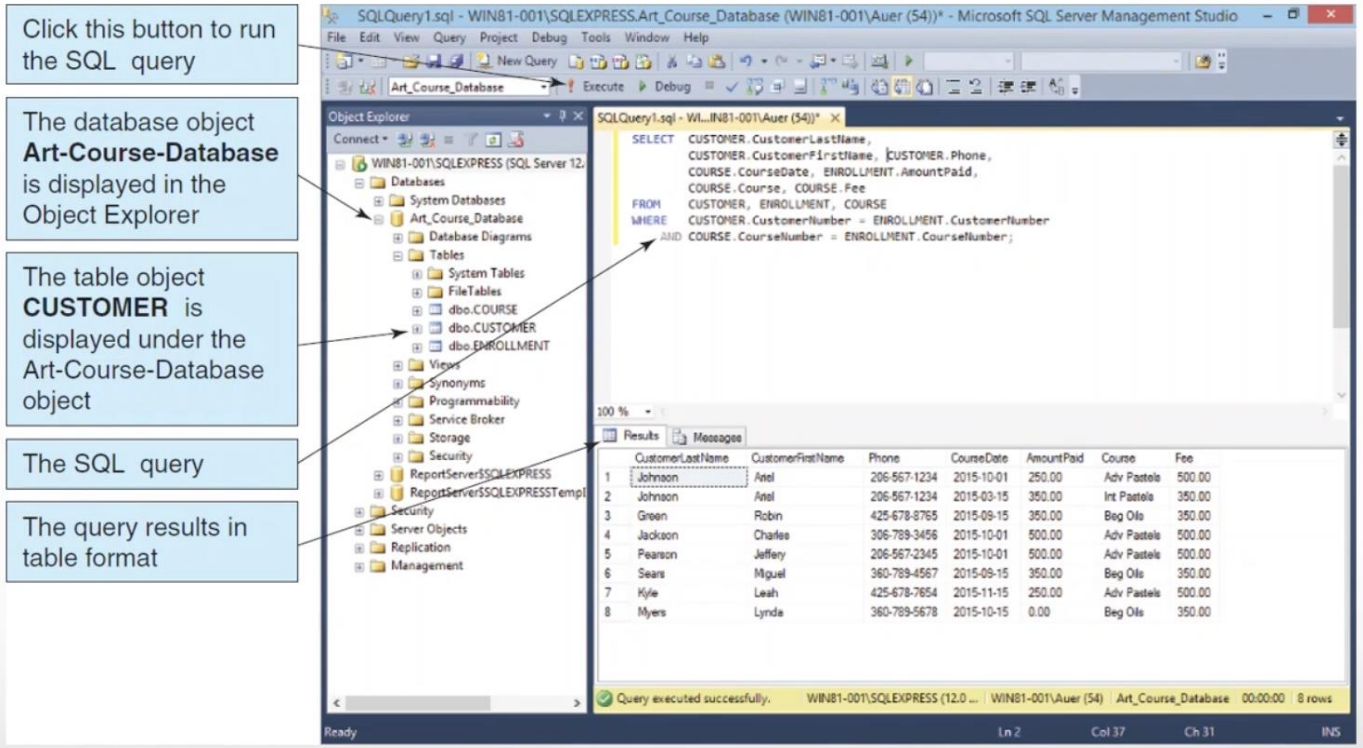


Figure 1-27 Microsoft SQL Server 2014

Mathematical Equations

Factors to Consider:

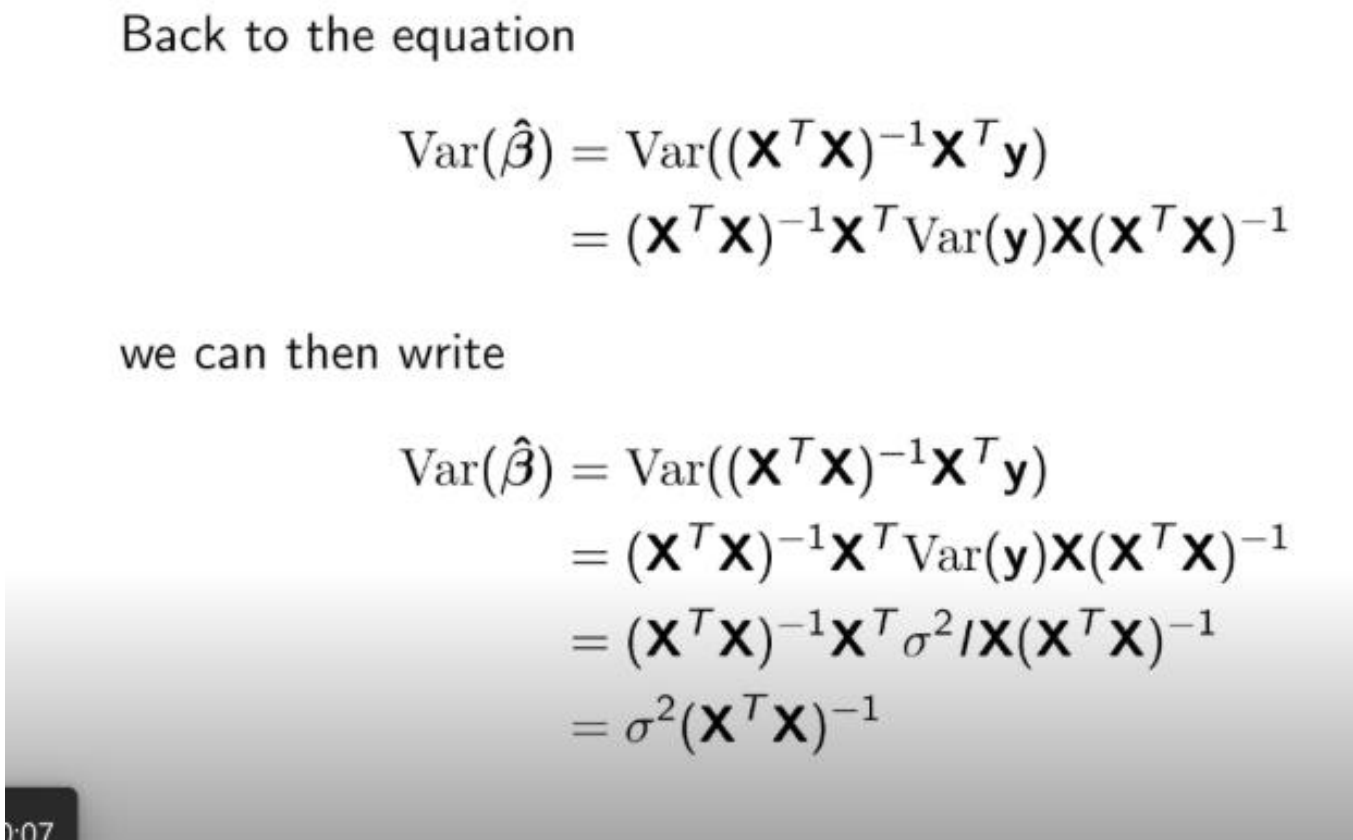
Read the equation exactly, ensuring you use the correct mathematical terms.

Do not

A tiny number 2 above the X,

Instead, use proper math terms

say “X squared. and don’t just copy and paste the raw LaTeX code (like f(x) =\frac{1}{\sqrt{x}})latex



Equations Writing Templates

Alt Text

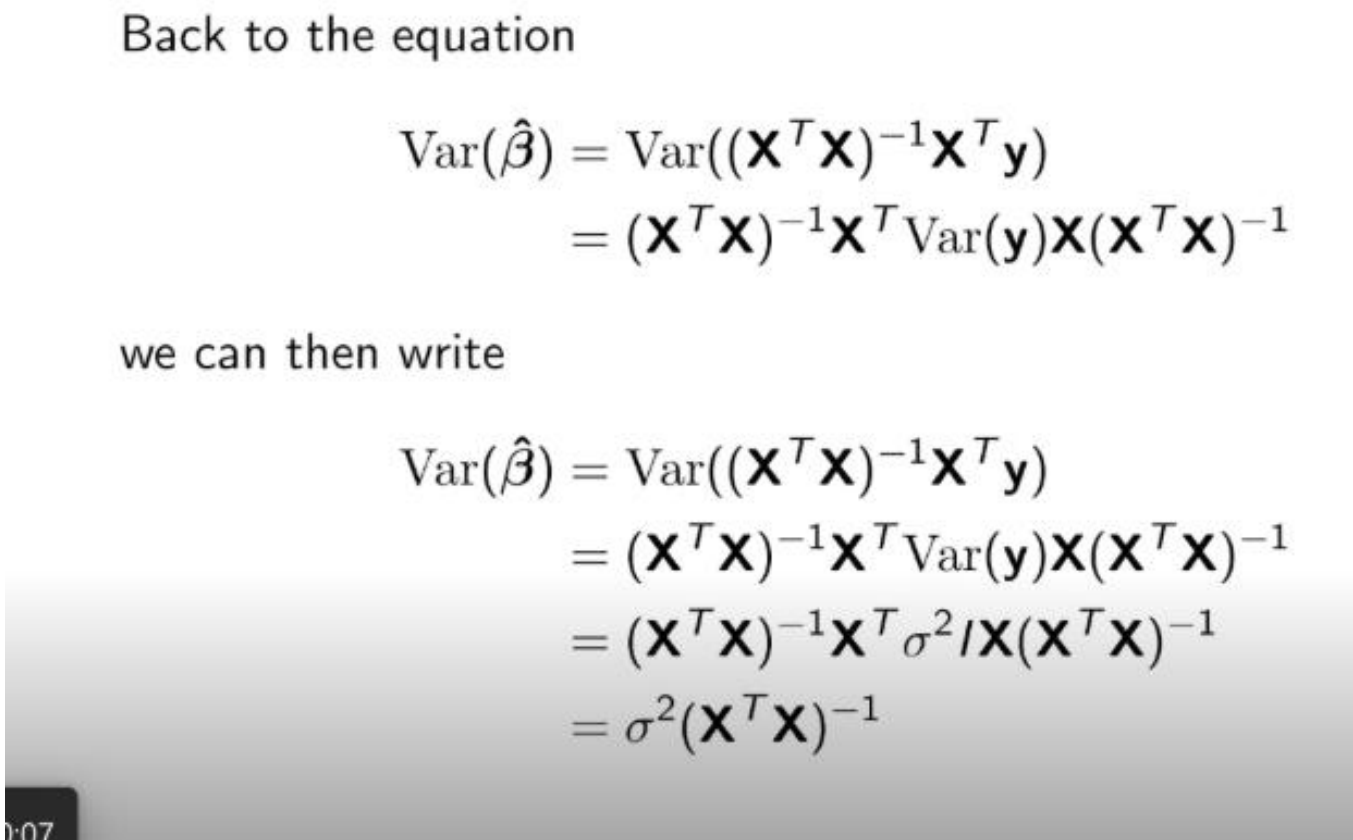
{equation} describes the {relationship between concepts / the steps to derive {final equation}}.

Extended Description

Variables include {variable} representing {meaning},

{First / Second / Third operation}

Highlights {equation, variable, operator, or expression}.



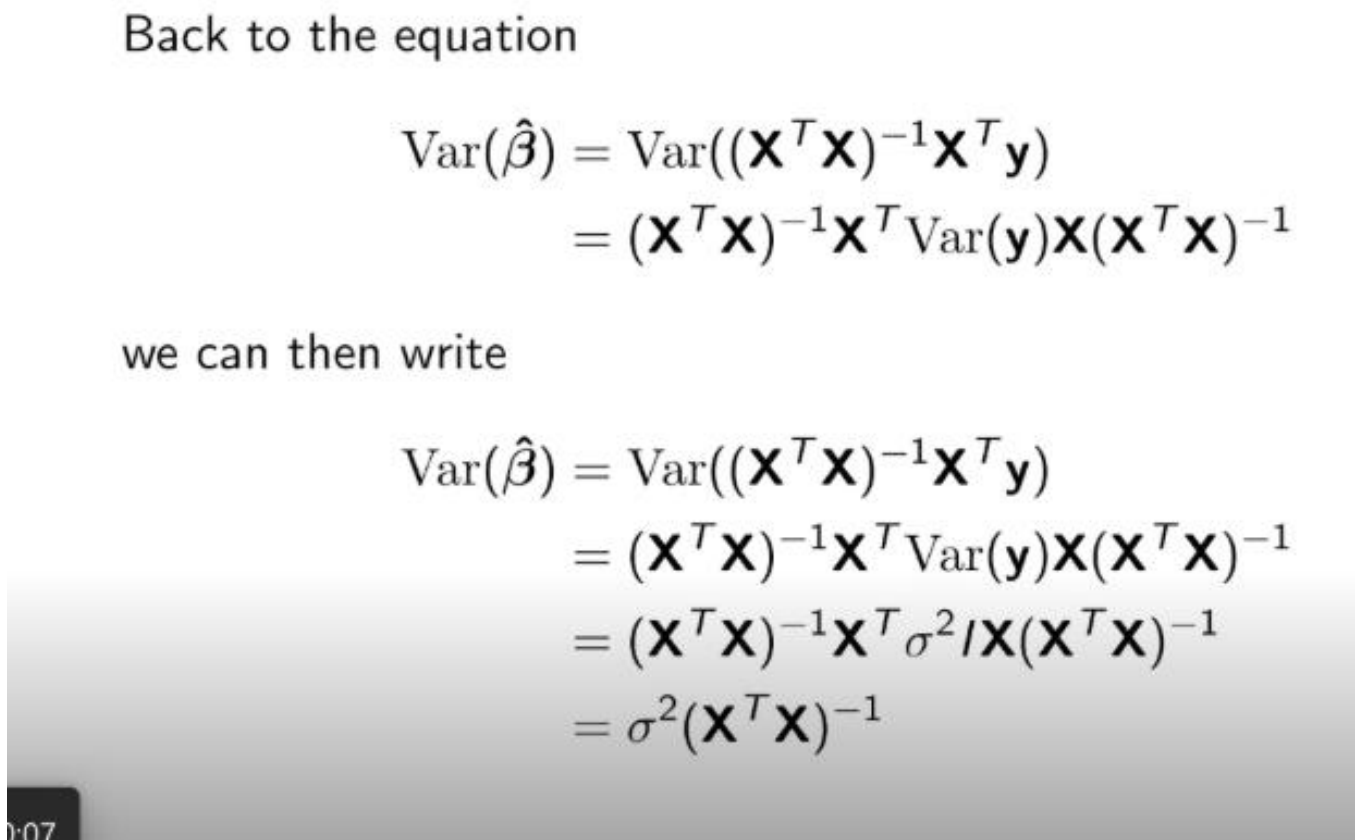
If We Focus On The Derivation

Alt Text

The equations show the steps used to simplify the \operatorname{Var}\left((X^{\top}X)^{-1}X^{\top}y\right) formula.

Extended Description

The final step substitutes $\operatorname{Var}(y)$ with $\sigma^2 I$, resulting in $\sigma^2 (X^T X)^{-1}$.



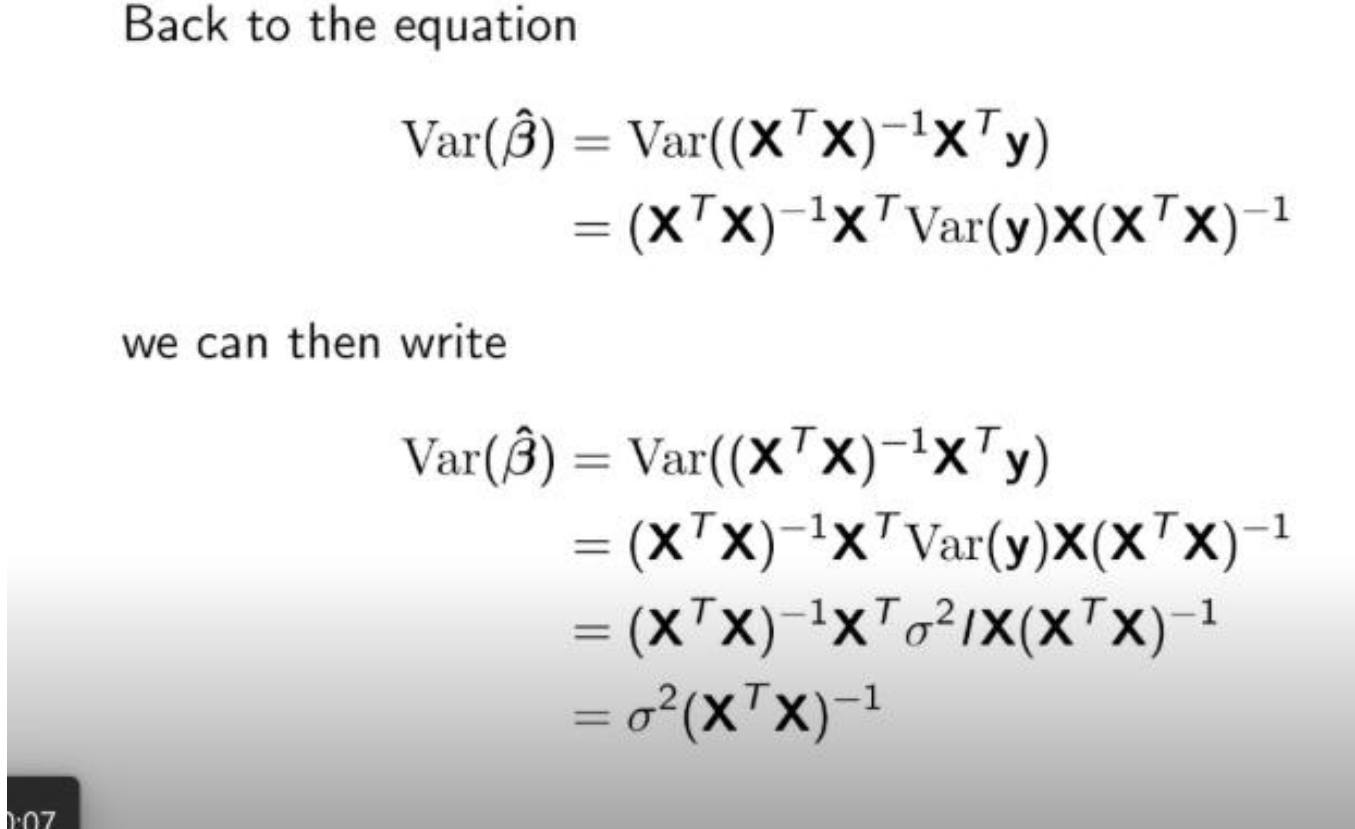
If We Focus On Derivation Process

Alt Text

The derivation begins with Var((X^T X)^{-1}X^Ty), then moves the constant matrix terms outside the variance operator, replaces Var(y) with σ^2I, and simplifies.

Extended Description

{LaTeX code}



Action

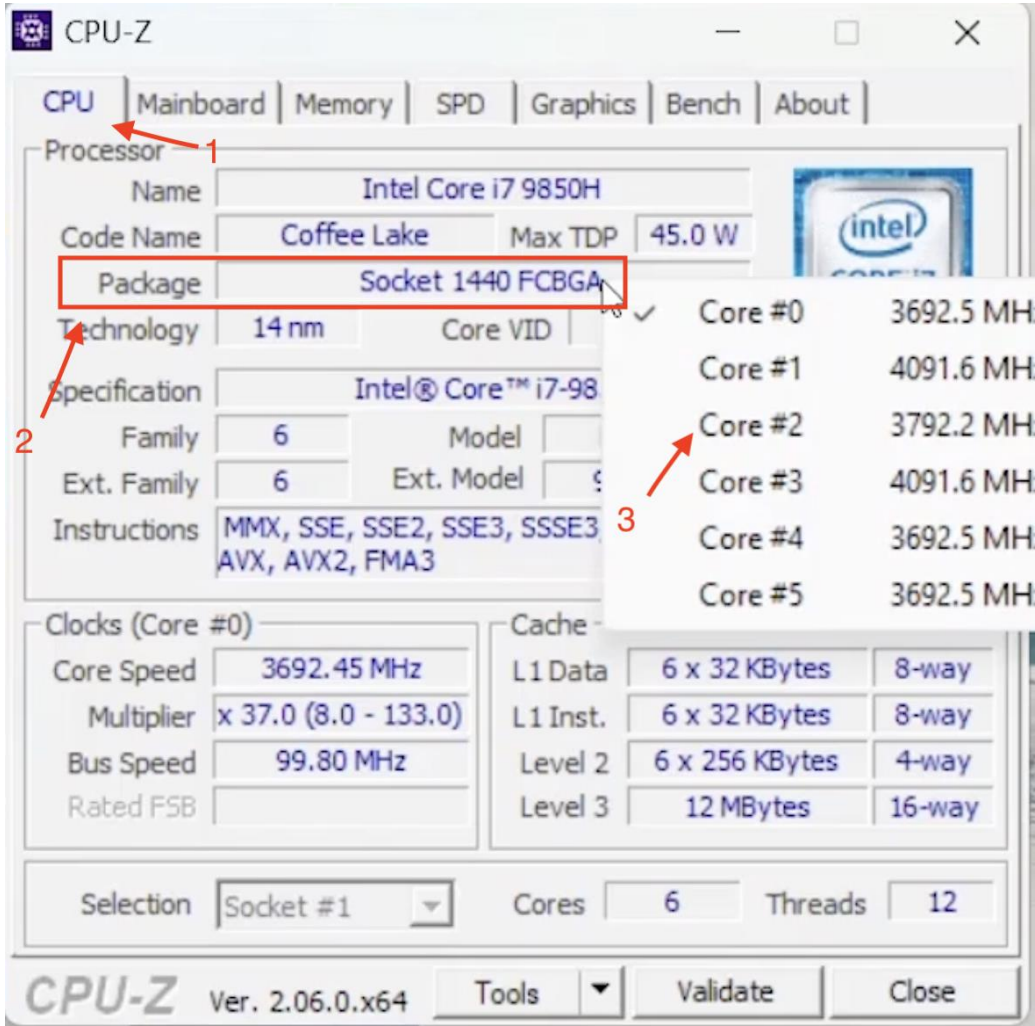
Factors to Consider:

Always Mention where the process begins and final outcome. If there are multiple entry points, list them clearly.

Use the "Sequential Steps"

Structure the description using numbered steps rather than transition words (First, Next, Then, Finally).

Focus purely on the action the student must take.



Action Writing Templates

Alt Text

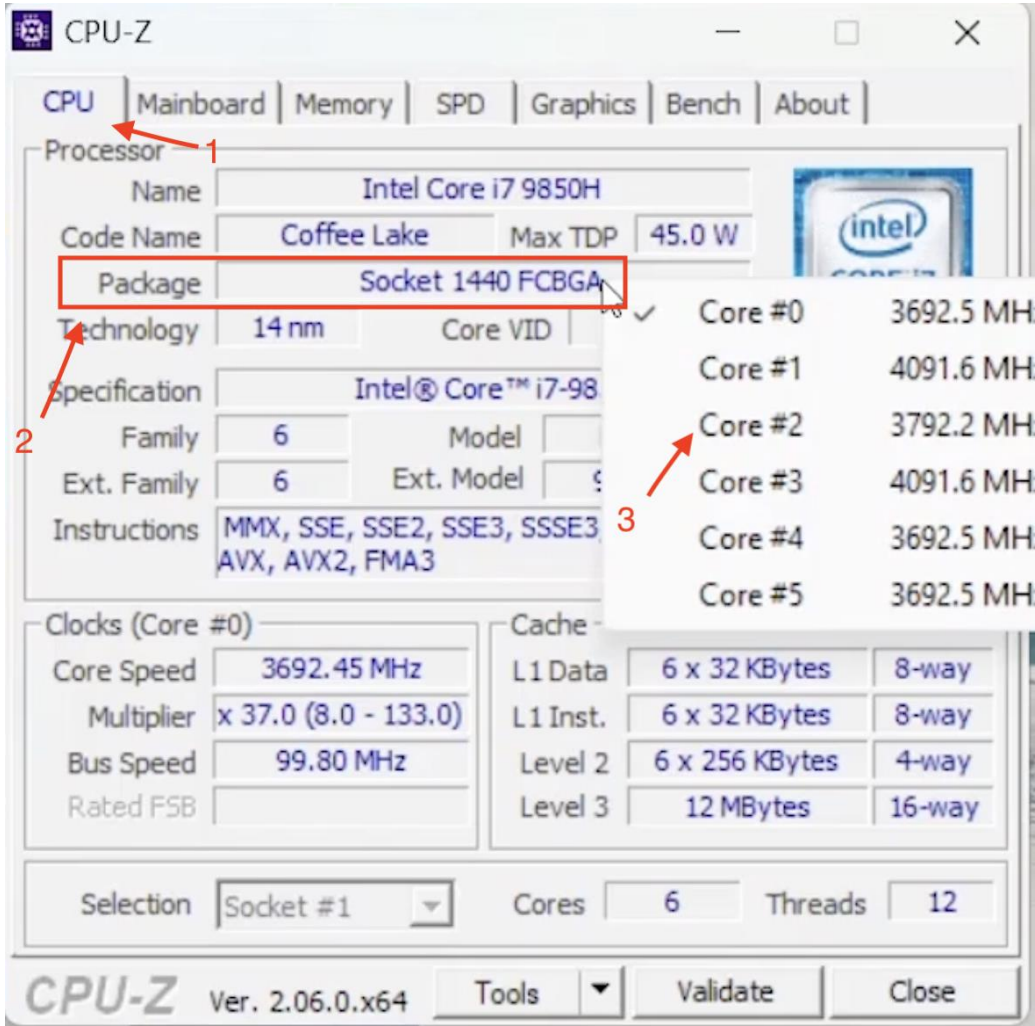
{action}{ object or location if applicable}{system response, physical change, or outcome}

Extended Description

1. {action 1}.
2. {action 2}
3. {action 3}

As a result, {system response, physical change, or outcome}.

{ Add Outcome details }



When We Focus On The Process

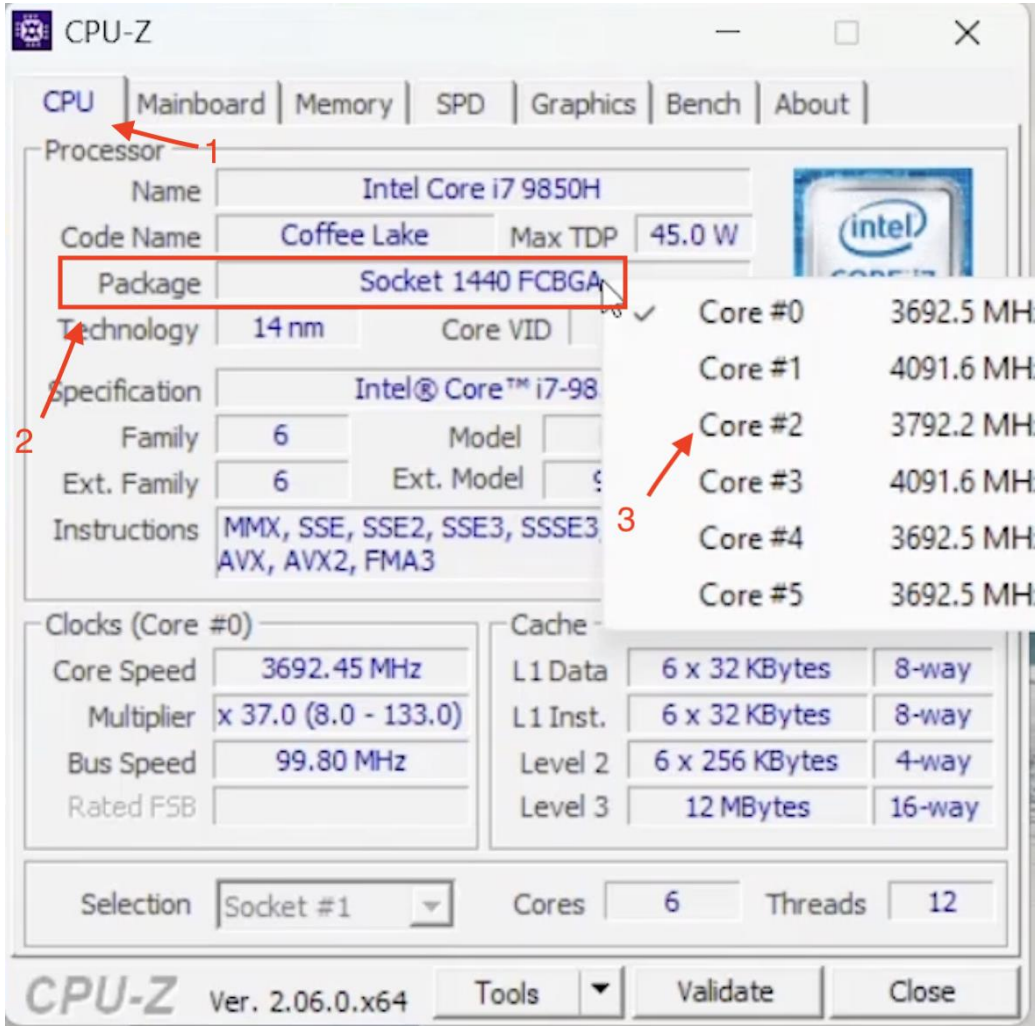
Alt Text

Selects the CPU-Z CPU tab, opening a menu that lists the current clock speed for each processor core.

Extended Description

1. The cursor moves to the Package field.
2. Selects it. A drop-down menu opens beside the field.
3. Displaying the current clock speed for Core #0 through Core #5.

Core #2 is listed with a current clock speed of 3792 MHz



Resources

Center for Learning Innovation

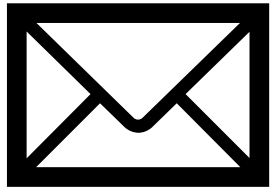
CLI Template

15 types of visual templates for reference on the website.

Website

Canvas Accessibility Guidelines

More Training and Resources



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Thanks