**Looking Up the Value in Excel**

*Section 1: Learn*

**What is Value Lookup in Excel?**

Value lookup in Excel is used to **search for specific data within a table or dataset**. This is essential for:

- **Fetching relevant information** from large datasets.

- **Automating data retrieval** without manual searching.

- **Comparing and analyzing records efficiently**.

**Why Use Lookup Functions?**

- **Saves Time** – Finds data instantly from large tables.

- **Reduces Errors** – Ensures accuracy in fetching the correct information.

- **Enhances Productivity** – Automates repetitive data lookups.

**Types of Lookup Functions in Excel**

| Function | Purpose |
|---|---|
| **VLOOKUP** | Searches for a value **vertically** in a column |
| **HLOOKUP** | Searches for a value **horizontally** in a row |
| **LOOKUP** | Searches for a value in a row or column and returns a result |
| **INDEX** | Returns the value from a specific row and column |

| Function | Purpose |
|---|---|
| **MATCH** | Returns the position of a value in a row or column |
| **XLOOKUP** | A modern replacement for VLOOKUP and HLOOKUP |

*Section 2: Practice*

**1. Using VLOOKUP to Find a Product Price**

**Scenario: Search for the price of "Laptop" in a product list**

| A (Product) | B (Price) |
|---|---|
| Laptop | ₹50,000 |
| Phone | ₹20,000 |
| Tablet | ₹30,000 |

=VLOOKUP("Laptop", A2:B4, 2, FALSE)

- Searches for **Laptop** in column A and returns the **Price** from column B.

## 2. Using HLOOKUP for Finding Marks in a Grade Sheet

**Scenario: Get the marks of a student from a horizontally arranged table**

|       | A     | B     | C   |
|-------|-------|-------|-----|
| Names | Rahul | Sunita| Raj |
| Marks | 85    | 90    | 75  |

```
=HLOOKUP("Sunita", A1:C2, 2, FALSE)
```

- Finds **Sunita** and returns her **marks**.

## 3. Using INDEX and MATCH for More Flexibility

```
=INDEX(B2:B4, MATCH("Laptop", A2:A4, 0))
```

- Finds **Laptop** in column A and returns the corresponding price from column B.

## 4. Using XLOOKUP for Simplified Lookup

```
=XLOOKUP("Laptop", A2:A4, B2:B4)
```

- Directly fetches the price of **Laptop**.

## 5. Finding Employee Details Using Multiple Criteria

```
=INDEX(C2:C5, MATCH(1, (A2:A5="HR") * (B2:B5="Manager"), 0))
```

- Finds the name of an **HR Manager** from a dataset.

*Section 3: Know More*

**Frequently Asked Questions (FAQs)**

**1. What is the difference between VLOOKUP and HLOOKUP?**

- **VLOOKUP** searches **vertically**, while **HLOOKUP** searches **horizontally**.

**2. Why does my VLOOKUP return an error?**

- Ensure:
    - The lookup value exists in the **first column**.
    - The column index is **within the table range**.

**3. What is better: VLOOKUP or INDEX-MATCH?**

- **INDEX-MATCH** is more **flexible** and works even if the lookup column is not the first one.

**4. What is XLOOKUP?**

- **XLOOKUP** is an advanced version of VLOOKUP/HLOOKUP that allows:
    - **Search in any direction** (left or right).
    - **Handles missing values** better.

**5. Can I use wildcards with lookup functions?**

- Yes! Example:

```
=VLOOKUP("Lap*", A2:B4, 2, FALSE)
```

    - Finds any word starting with **"Lap"**.

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**Conclusion:**

Excel's lookup functions make **data retrieval fast and efficient**.

Using the right function can **automate and simplify data handling** in large datasets.