Topic 4 — Tables in HTML : By Gagan Baghel

Concepts Covered:

`<table>` , `<tr>` , `<th>` , `<td>` , `<caption>` , `<thead>` , `<tbody>` , `<tfoot>` , `rowspan` , `colspan` , `border` , `cellpadding` , `cellspacing` , nested tables.

🎯 Goal

Learn how to create, format, and organize tabular data in HTML using different table structures — from simple data tables to complex layouts with merged cells, headers, and footers.

🔷 Task 1 — Simple Student Table

Objective: Create a basic table showing student information.

Instructions:

1. Create a `<table>` with a border.

2. Use `<tr>` for rows and `<td>` for table cells.

3. Add columns: **Name**, **Age**, and **Marks**.

4. Enter 4–5 student details as table data.

5. Keep formatting simple (no header cells).

6. Output :

Name	Age	Marks
Ravi	15	88
Anita	16	92
Rahul	15	79
Priya	16	95

🧩 *Practice Concept:* Basic table creation using `<table>` , `<tr>` , and `<td>` .

◆ Task 2 — Weekly Timetable

Objective: Design a timetable showing class schedule for weekdays.

Instructions:

1. Create a table with the caption **"Weekly Study Schedule"**.

2. Use `<th>` for header cells (Time, Monday to Friday).

3. Add rows for time slots like 9–10 AM, 10–11 AM, 11–12 PM.

4. Fill in subjects for each time and day.

5. Use `cellpadding="5"` to add spacing inside cells.

6. Output :

Weekly Study Schedule

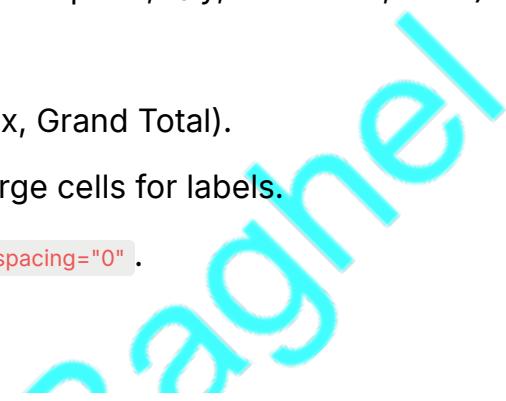| Time	Monday	Tuesday	Wednesday	Thursday	Friday
9–10 AM	Math	Science	English	Math	Geography
10–11 AM	Physics	History	Math	Science	Art
11–12 PM	Chemistry	Sports	Computer	English	Music

🧩 *Practice Concept:* Using `<caption>` for table titles and `<th>` for header cells.

◆ Task 3 — Customer Invoice Table

Objective: Create a professional invoice layout using `<thead>` , `<tbody>` , and `<tfoot>` .

Instructions:

1. Create a table with the caption **"Invoice #INV-1025 | Date: 09-Nov-2025"**.

2. Divide the table into sections using:

   - `<thead>` → for headings (Item, Description, Qty, Unit Price, Total).

   - `<tbody>` → for product rows.

   - `<tfoot>` → for totals (Subtotal, Tax, Grand Total).

3. Use `colspan="4"` in `<tfoot>` rows to merge cells for labels.

4. Use attributes `cellpadding="8"` and `cellspacing="0"` .

5. Output :

Invoice #INV-1025 | Date: 09-Nov-2025				
Item	**Description**	**Qty**	**Unit Price**	**Total**
101	Wireless Keyboard	2	$25	$50
102	Bluetooth Mouse	1	$15	$15
103	USB-C Cable	3	$5	$15
			Subtotal:	$80
			Tax (10%):	$8
			Grand Total:	$88

🧩 *Practice Concept:* Table structure with header, body, and footer sections.

◆ Task 4 — Restaurant Menu Table

Objective: Build a table that includes both merged columns and rows for menu items.

Instructions:

1. Add a `<caption>` with the title **"Delicious Dine Menu"**.

2. Create a table with headings:

   - Category (rowspan = 2)

   - Items (colspan = 2)

   - Price (rowspan = 2)

3. Add rows for *Starters*, *Main Course*, and *Desserts*.

4. For each category, list two dishes with description and price.

5. Demonstrate `rowspan` and `colspan` attributes.

6. Output :

Category	Items		Price
	Dish Name	**Description**	
Starters	Tomato Soup	Fresh & creamy	$5
	Spring Rolls	Crispy vegetable rolls	$6
Main Course	Paneer Butter Masala	Rich creamy curry	$10
	Veg Biryani	Fragrant rice with spices	$9
Desserts	Gulab Jamun	Sweet syrup dumplings	$4
	Ice Cream	Choice of flavors	$3

Caption: **Delicious Dine Menu**

🧩 *Practice Concept:* Combining `rowspan` and `colspan` for table layout control.

🔷 Task 5 — Nested Student Performance Table

Objective: Practice **nested tables** inside a cell.

Instructions:

1. Create a main table with two columns: **Student** and **Subjects**.

2. Inside each "Subjects" cell, add another table showing:

   - Subject name

   - Marks

   - Grade

3. Use borders and padding to keep both tables readable.

4. Add details for two students (Emma Brown and Ryan Smith).

5. Output :

Class 12 - Term Performance

Student	Subjects		
Emma Brown	Subject	Marks	Grade
	Math	92	A+
	Physics	88	A
	Chemistry	91	A+
Ryan Smith	Subject	Marks	Grade
	Math	85	A
	Physics	80	B+
	Chemistry	83	A

🧩 *Practice Concept:* Creating nested tables within cells.

◆ Task 6 — Employee Salary Report

Objective: Create a detailed company salary report using multiple table features.

Instructions:

1. Add a caption **"Employee Salary Summary - 2025"**.

2. Create a table using `<thead>` , `<tbody>` , and `<tfoot>` .

3. Use `rowspan` and `colspan` :

   - Department and Employee Name columns span multiple rows.
   - Salary columns are grouped under a single header "Quarterly Salary (USD)" with three subcolumns: Q1, Q2, Q3.

4. Add total salary for each employee and a grand total in the footer.

5. Use `cellpadding="8"` and `cellspacing="0"` for better spacing.

6. Output :

Employee Salary Summary - 2025					
Department	**Employee Name**	**Quarterly Salary (USD)**			**Total**
		Q1	**Q2**	**Q3**	
Engineering	John Doe	4000	4200	4100	12300
	Sarah Lee	3800	4000	4100	11900
Marketing	David Kim	3000	3100	3050	9150
	Alice Wong	2900	2950	3000	8850
Grand Total					**42200**

🧩 *Practice Concept:* Advanced header grouping and table structure.

🔷 Task 7 — Student Report Card

Objective: Design a table that uses both **rowspan** and **colspan** to summarize marks.

Instructions:

1. Create a table with the caption **"Class 10 Report"**.

2. Add columns for:

   - Subject

   - Max Marks

   - Marks Obtained

   - Grade

3. Use `rowspan="5"` for the Max Marks column (all subjects out of 100).

4. Add a final row showing **Total / Percentage** using `colspan="2"`.

5. Apply inline style `border-collapse: collapse` for a neat layout.

6. Output :

Subject	Max Marks	Marks Obtained	Grade
Mathematics	100	95	A+
Science		89	A
English		92	A+
History		85	B+
Computer		98	A+
Total / Percentage		459 / 500	91.8%

Class 10 Report

🧩 *Practice Concept:* Using rowspan and colspan together for report-style tables.

✅ Expected Learning Outcomes

After completing all tasks, you will:

- Understand how to structure tabular data effectively.

- Use `thead` , `tbody` , and `tfoot` to separate table content.

- Merge cells using `rowspan` and `colspan` .

- Nest tables within table cells.

- Apply borders, spacing, and captions for presentation.