Practical 13: Excel Student Result Management

Aim

To analyze student marks using Excel tools.

Objectives

- To apply Excel formulas
- To create charts

Materials Required

- MS Excel

Procedure

1. Enter student data – Input students' names, marks, and other required details into the spreadsheet.

2. Use Flash Fill – Apply Flash Fill to automatically complete patterns such as separating names or formatting data.

3. Replace incorrect values – Identify errors and use Find & Replace or manual correction to fix inaccurate entries.

4. Calculate pass/fail using IF – Create an IF formula to determine whether each student passes or fails based on their score.

5. Use COUNTIF and AVERAGE – Apply COUNTIF to count specific results and AVERAGE to compute the class's mean score.

6. Create charts – Generate visual charts to represent student performance trends or score distributions.

7. Apply conditional formatting – Use color-based formatting to highlight important values, such as low scores or top performers.

	Name	Roll No	Class	City	Subj1	Marks1	Subj2	Marks2	Subj3	Marks3	Total Marks	First name	Last name	Average	MAX	Min	Pass/Fail
2	Rahul Verma	1	9	Delhi	Math	78	Science	82	English	75	235	Rahul	Verma	78.33333	82	75	Pass
3	Neha Sharma	2	9	Jaipur	English	85	History	88	Science	88	261	Neha	Sharma	87.00000	88	85	Pass
4	Aman Khan	3	9	Lucknow	Math	90	Computer	92	Science	86	268	Aman	Khan	89.33333	92	86	Pass
5	Pooja Patel	4	9	Surat	Math	90	English	70	Hindi	40	100	Pooja	Patel	33.33333	90	10	Fail
6	Suresh Das	5	9	Delhi	Science	99	Math	84	Geography	78	261	Suresh	Das	87.00000	99	78	Pass
7	Ankit Singh	6	9	Patna	Math	92	Science	20	English	20	90	Ankit	Singh	30	92	10	Fail
8	Riya Gupta	7	9	Noida	English	92	Science	89	Computer	94	275	Riya	Gupta	91.66667	94	89	Pass
9	Mohit Jain	8	9	Indore	Math	91	English	77	Science	85	243	Mohit	Jain	81	91	77	Pass
10	Sneha Iyer	9	9	Chennai	Science	90	Math	88	English	91	269	Sneha	Iyer	89.66667	91	88	Pass
11	Karan Malhotra	10	9	Chandigarh	Math	74	Science	78	Computer	87	239	Karan	Malhotra	79.66667	87	74	Pass
12	Aditi Rao	11	9	Bengaluru	English	96	History	82	Science	89	267	Aditi	Rao	89.00000	96	82	Pass
13	Nikhil Pawar	12	9	Pune	Math	99	Science	91	Geography	67	257	Nikhil	Pawar	85.66667	99	67	Pass
14	Simran Kaur	13	9	Delhi	English	90	Punjabi	85	Science	78	253	Simran	Kaur	84.33333	90	78	Pass
15	Arjun Mehta	14	9	Mumbai	Math	93	Science	90	English	92	275	Arjun	Mehta	91.66667	93	90	Pass
16	Kavya Nair	15	9	Kochi	Science	97	Math	84	English	89	270	Kavya	Nair	90.00000	97	84	Pass

Practical 14: Sales Data Workbook

Aim

To analyze sales data using Excel formulas and charts.

Objectives

- To use SUMIF formulas
- To filter categories

Materials Required

- Excel

Procedure

1. Enter or import sales data – Add sales records manually or import them from an external file to build your dataset.

2. Sort and filter – Organize the data by sorting and apply filters to focus on specific products, dates, or regions.

3. Use SUMIF – Apply the SUMIF function to total sales based on a chosen condition, such as product type or salesperson.

4. Extract text using LEFT/RIGHT – Use LEFT or RIGHT functions to pull specific characters from product codes or IDs.

5. Create line chart – Plot a line chart to visualize sales trends over time for clearer analysis.

6. Protect sheet – Lock the sheet or specific cells to prevent unauthorized edits and maintain data integrity.

	A	B	C	D	E	F	G
1	Date	Product	Category	Quantity	Price	TOTAL SALES	IDs
2	01-01-2025	Laptop	Electronics	2	800	1600	Lap
3	02-01-2025	Smartphone	Electronics	5	500	2500	Sma
4	03-01-2025	Headphones	Accessories	10	50	500	Hea
5	04-01-2025	Office Chair	Furniture	3	150	450	Off
6	05-01-2025	Desk	Furniture	2	300	600	Des
7	06-01-2025	Notebook	Stationery	20	5	100	Not
8	07-01-2025	Pen Pack	Stationery	15	10	150	Pen
9	08-01-2025	Headphones	Electronics	1	400	400	Hea
10	09-01-2025	Mouse	Accessories	8	25	200	Mou
11	10-01-2025	Keyboard	Accessories	6	40	240	Key
12	11-01-2025	Headphones	Electronics	4	200	800	Hea
13	12-01-2025	Bookshelf	Furniture	2	180	360	Boo
14	13-01-2025	Calculator	Stationery	7	30	210	Cal
15	14-01-2025	USB Drive	Accessories	12	15	180	USB

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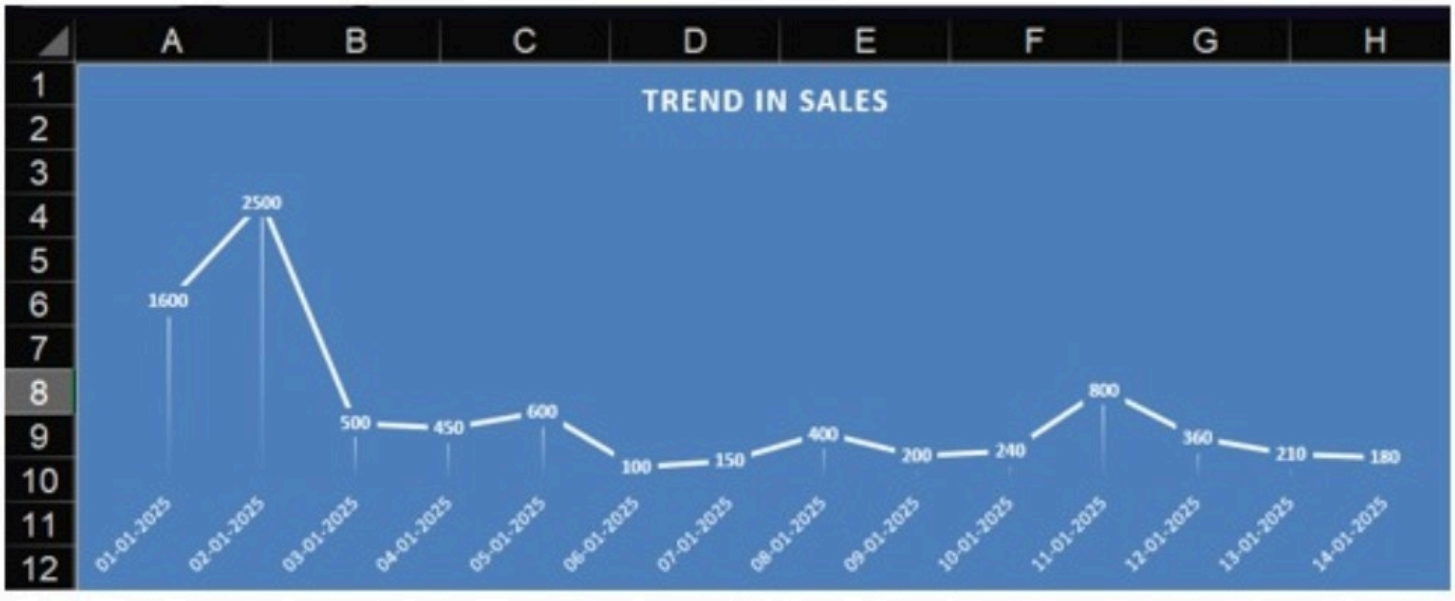
	A	B
1	Sales of	Price
2	Electronics	5300
3	Accessories	1120
4	Furniture	1410
5	Stationery	460



Practical 15: Personal Financial Planner

Aim

To prepare a personal financial planner using Excel.

Objectives

- To track expenses
- To compare budget vs actual

Materials Required

- Excel

Procedure

1. Enter expenses – Record all expense items with their categories, dates, and amounts in the spreadsheet.

2. Apply Data Validation – Set validation rules to restrict inputs, such as allowing only numbers or predefined categories.

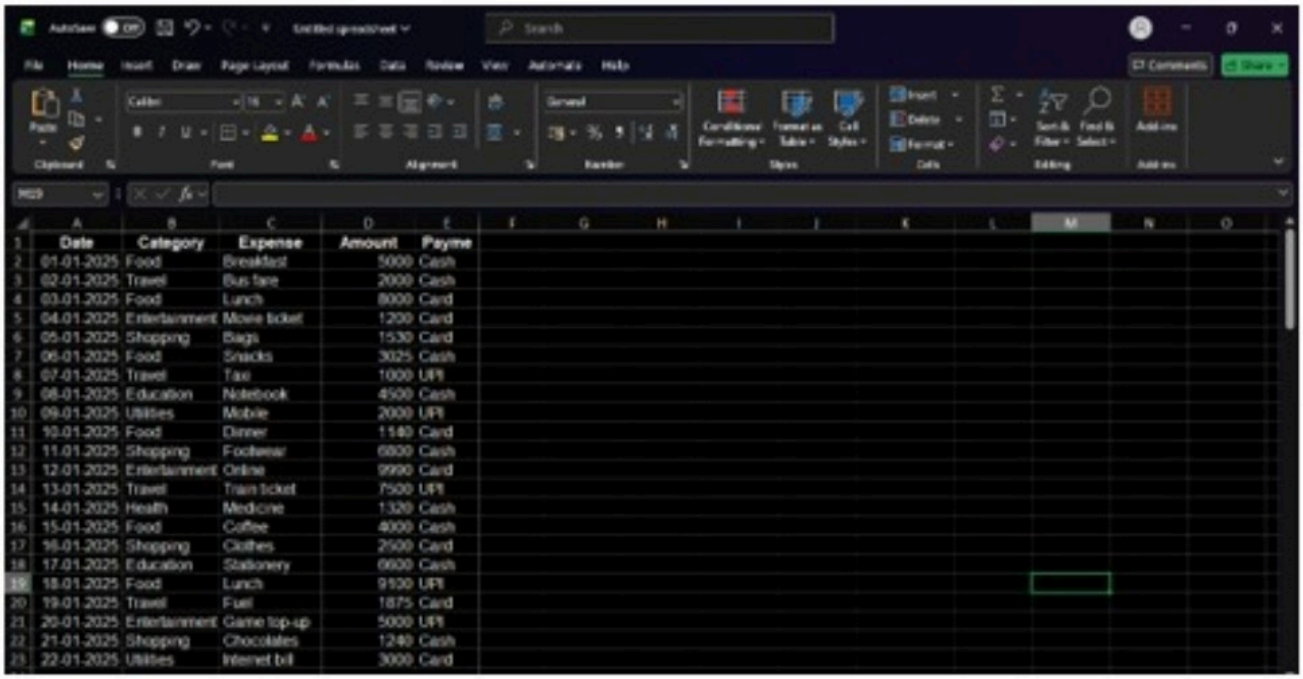
3. Use SUMIF – Use the SUMIF function to total expenses by category or any specific condition you choose.

4. Create budget sheet – Design a separate sheet comparing planned budgets to actual spending for better tracking.

5. Highlight expenses above limit – Apply conditional formatting to automatically mark entries that exceed your budget limit.

6. Create charts – Generate charts to visually present spending patterns, category breakdowns, or monthly totals.

7. Adjust print settings – Modify page layout, scaling, and margins to ensure the sheet prints clearly and fits on the page.



	Date	Category	Expense	Amount	Payme
2	01-01-2025	Food	Breakfast	5000	Cash
3	02-01-2025	Travel	Bus fare	2000	Cash
4	03-01-2025	Food	Lunch	8000	Card
5	04-01-2025	Entertainment	Movie ticket	1200	Card
6	05-01-2025	Shopping	Bags	1530	Card
7	06-01-2025	Food	Snacks	3025	Cash
8	07-01-2025	Travel	Taxi	1000	UPI
9	08-01-2025	Education	Notebook	4500	Cash
10	09-01-2025	Utilities	Mobile	2000	UPI
11	10-01-2025	Food	Dinner	1540	Card
12	11-01-2025	Shopping	Footwear	6800	Cash
13	12-01-2025	Entertainment	Online	9990	Card
14	13-01-2025	Travel	Train ticket	7500	UPI
15	14-01-2025	Health	Medicine	1320	Cash
16	15-01-2025	Food	Coffee	4000	Cash
17	16-01-2025	Shopping	Clothes	2500	Card
18	17-01-2025	Education	Stationery	6600	Cash
19	18-01-2025	Food	Lunch	9100	UPI
20	19-01-2025	Travel	Fuel	1875	Card
21	20-01-2025	Entertainment	Game top-up	5000	UPI
22	21-01-2025	Shopping	Chocolates	1240	Cash
23	22-01-2025	Utilities	Internet bill	3000	Card

Category	Actual Amo	Budgeted ar	Status	Difference
Food	30265	25000	over budget	-5265
Travel	12375	15000	Underbudget	2625
Education	11100	5000	over budget	-6100
Entertainme	30265	10000	over budget	-20265
Shopping	2500	10000	Underbudget	7500
Utilities	5000	6000	Underbudget	1000
Health	1320	5000	Underbudget	3680