Student	Math	Science	History
Alice	90	88	84
Bob	85	92	78
Charlie	95	89	91

Product	Jan_Sales	Feb_Sales	Mar_Sales
A	100	110	120
B	150	160	170
C	200	210	220

Tidy Data Assignment

In this assignment, you will identify whether a given dataset is in tidy format. Each problem will present a dataset from a different background along with a brief description. Your task is to determine if the dataset is tidy. If it is not tidy, describe why and provide a tidy version of the dataset.

Problems

Problem 1: Weather Data

The following dataset contains weather data for three cities.

City	Jan_Temp	Feb_Temp	Mar_Temp
New York	30	32	45
Los Angeles	58	60	65
Chicago	25	28	40

Problem 2: Student Grades

The following dataset contains grades for students in three subjects.

Problem 3: Sales Data

The following dataset contains monthly sales data for different products.

Problem 4: Patient Health Data

The following dataset contains health data for patients.

Patient	Height	Weight	Age
John	170	70	30
Jane	160	55	25
Doe	180	80	40

Company	Q1_Revenue	Q2_Revenue	Q3_Revenue
X	1000	1100	1200
Y	2000	2100	2200
Z	3000	3100	3200

Problem 5: Financial Data

The following dataset contains quarterly financial data for companies.

Problem 6: Sports Statistics

The following dataset contains statistics for players in a sports team.

Problem 7: Movie Ratings

The following dataset contains ratings for movies by different critics.

Problem 8: Employee Salary Data

The following dataset contains salary data for employees in different departments.

Problem 9: Product Reviews

The following dataset contains reviews for products.

Problem 10: Course Enrollment Data

The following dataset contains enrollment data for courses.

Player	Goals	Assists	Saves
Player1	5	3	2
Player2	8	5	1
Player3	7	4	3

Movie	Critic1	Critic2	Critic3
Movie A	4.5	4.0	4.7
Movie B	3.8	3.9	4.0
Movie C	4.7	4.8	4.9

Employee	Dept1_Salary	Dept2_Salary	Dept3_Salary
E1	50000	52000	54000
E2	55000	57000	59000
E3	60000	62000	64000

Problem 11: Sales Data

The following table shows the monthly sales data for three products.

Problem 12: Survey Data

The following table represents the results of a survey where respondents rated their satisfaction with three services.

Problem 13: Weather Data

The table below shows the temperature readings at different times of the day for a week.

Problem 14: Exam Scores

The following table lists the scores of students in three subjects.

Problem 15: Hospital Data

The table below shows the number of patients admitted to different wards of a hospital over three months.

Product	Review1	Review2	Review3
Product1	Good	Very Good	Excellent
Product2	Average	Good	Good
Product3	Excellent	Very Good	Good

Course	Semester1	Semester2	Semester3
Course1	30	35	32
Course2	25	28	26
Course3	20	22	24

Product	January	February	March
Product A	100	120	130
Product B	150	160	170
Product C	200	220	230

Respondent	Service1_Satisfaction	Service2_Satisfaction	Service3_Satisfaction
R1	5	4	3
R2	4	3	2
R3	3	2	1

Day	Morning	Noon	Evening
Monday	20	25	22
Tuesday	21	26	23
Wednesday	19	24	21
Thursday	22	27	24
Friday	20	25	22

Student	Math	Science	History
Student1	85	88	80
Student2	90	92	85
Student3	95	96	90

Ward	January	February	March
Ward A	30	35	40
Ward B	25	30	35
Ward C	20	25	30

Channel	Week1	Week2	Week3
Email	50	55	60
Social Media	60	65	70
SEO	70	75	80

Athlete	Monday	Wednesday	Friday
Athlete1	30	35	40
Athlete2	40	45	50
Athlete3	50	55	60

Problem 16: Marketing Data

The following table represents the results of a marketing campaign showing the number of leads generated from different channels.

Problem 17: Fitness Data

The table below shows the workouts completed by three athletes over a week.

Problem 18: Financial Data

The following table shows the quarterly profits for three companies.

Problem 19: Attendance Data

The table below shows the attendance numbers for different events over three days.

Problem 20: Production Data

The following table represents the production output of different products over three shifts.

Company	Q1	Q2	Q3	Q4
Company A	10000	12000	13000	14000
Company B	15000	16000	17000	18000
Company C	20000	22000	23000	24000

Event	Day1	Day2	Day3
Event A	100	110	120
Event B	150	160	170
Event C	200	210	220

Product	Shift1	Shift2	Shift3
Product X	300	350	400
Product Y	400	450	500
Product Z	500	550	600