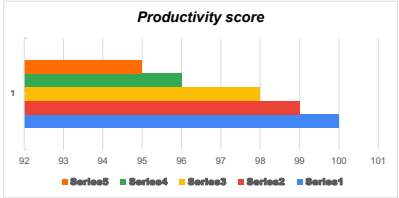


Employee Work Productivity Analysis

1. Top 5 Productive Employees: A. Use the SORT and FILTER functions to display the top 5 employees with the highest productivity scores. B. Create a bar chart to visualize the results.

Employee_ID	Name	Department	Hours_Worked	Tasks_Completed	Productivity_Score	Performance_Rating
107	Rahul	IT	50	80	100	5
125	Tanya	IT	47	79	99	5
115	Rakesh	IT	48	78	98	5
123	Neeraj	Marketing	46	77	96	5
104	Riya	IT	45	75	95	5



2. Department-Wise Productivity Consistency: A. Calculate the standard deviation of productivity scores within each department to assess consistency. B. Which department has the least variation in employee productivity scores?

Department	StdDev of Productivity_Score
Finance	2.958039892
HR	3.544009829
IT	4.707440918
Marketing	2
Sales	4.374801583
Grand Total	12.41289652

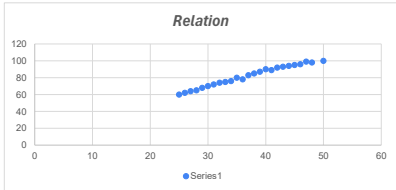
3. Productivity Efficiency Index (PEI): A. Create a new column PEI (Productivity Efficiency Index) using this formula: $\text{PEI} = \frac{\text{Productivity_Score}}{\text{Hours_Worked}}$. B. Rank all employees based on PEI and display the top 3. C. Use RANK, SORT, or filters in Excel or Google Sheets.

Employee_ID	Name	Department	Hours_Worked	Tasks_Completed	Productivity_Score	Performance_Rating	Productivity_Efficiency_Index
125	Tanya	IT	47	79	99	5	10.53191
123	Neeraj	Marketing	46	77	96	5	10.43478
115	Rakesh	IT	48	78	98	5	10.20833

4. Correlation Analysis: Question 1: Determine which has a stronger influence on Performance Rating: Hours_Worked or Tasks_Completed? B. Use correlation coefficients to compare both relationships.

0.992498423

Question 2: Work Hours and Productivity Correlation A. Create a scatter plot to visualize the relationship between Hours_Worked and Productivity_Score. B. Identify if there is a positive or negative correlation.



positive correlation

5. Underutilized High Performers: Question: Identify employees who A. Have a Performance Rating ≥ 4 , AND B. Worked less than the average hours of all employees.

Employee_ID	Name	Department	Hours_Worked	Tasks_Completed	Productivity_Score	Performance_Rating	Productivity_Efficiency_Index	logical
125	Tanya	IT	47	79	99	5	10.53191	no
124	Akash	Sales	34	48	76	3	6.705882	yes
123	Neeraj	Marketing	46	77	96	5	10.43478	no
122	Jyoti	HR	32	44	74	3	6.9375	yes
121	Mohan	Finance	27	34	64	2	4.740741	yes
120	Suman	Sales	36	52	78	4	8.666667	yes
119	Anjali	IT	39	60	87	4	8.923077	yes
118	Arjun	Marketing	43	75	93	5	10.81395	no
117	Sanjay	HR	31	42	72	3	6.967742	yes
116	Kavita	Finance	26	32	62	2	4.769231	yes
115	Rakesh	IT	48	78	98	5	10.20833	no
114	Deepak	Sales	41	66	89	4	8.682927	no
113	Varun	HR	33	45	75	3	6.818182	yes
112	Pooja	Marketing	44	73	94	5	10.68182	no
111	Amit	Finance	29	38	68	3	7.034483	yes

110	Sneha	Sales	37	55	83	4	8.972973	yes
109	Kunal	Marketing	42	70	92	5	10.95238	no
108	Priya	HR	28	35	65	3	6.964286	yes
107	Rahul	IT	50	80	100	5	10	no
106	Neha	Sales	38	58	85	4	8.947368	yes
105	Prakash	Finance	25	30	60	2	4.8	yes
104	Riya	IT	45	75	95	5	10.55556	no
103	Suresh	HR	30	40	70	3	7	yes
102	Meera	Marketing	40	65	90	5	11.25	no
101	Aakash	Sales	35	50	80	4	9.142857	yes

average = 37.04

6. Tasks per Hour Efficiency: Question: A. Add a column Tasks per Hour: B. Who is the most task-efficient employee based on this metric C. Compare their performance score and rating

Employee_ID	Name	Department	Hours_Worked	Tasks_Completed	Productivity_Score	Performance_Rating	Productivity_Efficiency_Index	logical	ask per hour
125	Tanya	IT	47	79	99	5	10.53191	no	1.680851
124	Akash	Sales	34	48	76	3	6.705882	yes	1.411765
123	Neeraj	Marketing	46	77	96	5	10.43478	no	1.673913
122	Jyoti	HR	32	44	74	3	6.9375	yes	1.375
121	Mohan	Finance	27	34	64	2	4.740741	yes	1.259259
120	Suman	Sales	36	52	78	4	8.666667	yes	1.444444
119	Anjali	IT	39	60	87	4	8.923077	yes	1.538462
118	Arun	Marketing	43	75	93	5	10.81395	no	1.744186
117	Sanjay	HR	31	42	72	3	6.967742	yes	1.354839
116	Kavita	Finance	26	32	62	2	4.769231	yes	1.230769
115	Rakesh	IT	48	78	98	5	10.20833	no	1.625
114	Deepak	Sales	41	66	89	4	8.682927	no	1.609756
113	Varun	HR	33	45	75	3	6.818182	yes	1.363636
112	Pooja	Marketing	44	73	94	5	10.68182	no	1.659091
111	Amit	Finance	29	38	68	3	7.034483	yes	1.310345
110	Sneha	Sales	37	55	83	4	8.972973	yes	1.486486
109	Kunal	Marketing	42	70	92	5	10.95238	no	1.666667
108	Priya	HR	28	35	65	3	6.964286	yes	1.25
107	Rahul	IT	50	80	100	5	10	no	1.6
106	Neha	Sales	38	58	85	4	8.947368	yes	1.526316
105	Prakash	Finance	25	30	60	2	4.8	yes	1.2
104	Riya	IT	45	75	95	5	10.55556	no	1.666667
103	Suresh	HR	30	40	70	3	7	yes	1.333333
102	Meera	Marketing	40	65	90	5	11.25	no	1.625
101	Aakash	Sales	35	50	80	4	9.142857	yes	1.428571
									1.744186

Performance Score 93
Rating 5
Department Marketing