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Computer Fundamentals and Office Applications

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Project Data:

Plant_ID	Plant_Name	Type	Height(cm)	Leaf_Color	Flowering_Season	Water_Requirement(L/week)
1	Plant 1	Herb	20	Green	Spring	1.5
2	Plant 2	Shrub	25	Yellow	Summer	1.6
3	Plant 3	Tree	30	Red	Autumn	1.6
4	Plant 4	Climber	35	Purple	Winter	1.7
5	Plant 5	Creeper	40	Variegated	Spring	1.7
6	Plant 6	Herb	45	Green	Summer	1.8
7	Plant 7	Shrub	50	Yellow	Autumn	1.9
8	Plant 8	Tree	55	Red	Winter	1.9
9	Plant 9	Climber	60	Purple	Spring	2
10	Plant 10	Creeper	65	Variegated	Summer	2.1
11	Plant 11	Herb	70	Green	Autumn	2.1
12	Plant 12	Shrub	75	Yellow	Winter	2.2
13	Plant 13	Tree	80	Red	Spring	2.2
14	Plant 14	Climber	85	Purple	Summer	2.3
15	Plant 15	Creeper	90	Variegated	Autumn	2.4
16	Plant 16	Herb	95	Green	Winter	2.4
17	Plant 17	Shrub	100	Yellow	Spring	2.5
18	Plant 18	Tree	105	Red	Summer	2.5
19	Plant 19	Climber	110	Purple	Autumn	2.6
20	Plant 20	Creeper	115	Variegated	Winter	2.7
21	Plant 21	Herb	120	Green	Spring	2.7
22	Plant 22	Shrub	125	Yellow	Summer	2.8
23	Plant 23	Tree	130	Red	Autumn	2.8
24	Plant 24	Climber	135	Purple	Winter	2.9
25	Plant 25	Creeper	140	Variegated	Spring	3
26	Plant 26	Herb	145	Green	Summer	3
27	Plant 27	Shrub	150	Yellow	Autumn	3.1
28	Plant 28	Tree	155	Red	Winter	3.2
29	Plant 29	Climber	160	Purple	Spring	3.2
30	Plant 30	Creeper	165	Variegated	Summer	3.3
31	Plant 31	Herb	170	Green	Autumn	3.3
32	Plant 32	Shrub	175	Yellow	Winter	3.4
33	Plant 33	Tree	180	Red	Spring	3.5
34	Plant 34	Climber	185	Purple	Summer	3.5
35	Plant 35	Creeper	190	Variegated	Autumn	3.6
36	Plant 36	Herb	195	Green	Winter	3.6
37	Plant 37	Shrub	200	Yellow	Spring	3.7
38	Plant 38	Tree	205	Red	Summer	3.8
39	Plant 39	Climber	210	Purple	Autumn	3.8
40	Plant 40	Creeper	215	Variegated	Winter	3.9
41	Plant 41	Herb	220	Green	Spring	3.9
42	Plant 42	Shrub	225	Yellow	Summer	4
43	Plant 43	Tree	230	Red	Autumn	4.1

44	Plant 44	Climber	235	Purple	Winter	4.1
45	Plant 45	Creeper	240	Variegated	Spring	4.2
46	Plant 46	Herb	245	Green	Summer	4.3
47	Plant 47	Shrub	250	Yellow	Autumn	4.3
48	Plant 48	Tree	255	Red	Winter	4.4
49	Plant 49	Climber	260	Purple	Spring	4.4
50	Plant 50	Creeper	265	Variegated	Summer	4.5

Questions:

1. Create a pivot table to count how many plants belong to each flowering season.
2. Use a pivot table to find the average water requirement for each plant type and then create a bar chart to visually represent this data.
3. Sort the plants by height in descending order.
4. Filter the data to show only plants with green leaves.
5. Create a bar chart showing the number of plants in each leaf color category.

1. Create a pivot table to count how many plants belong to each flowering season.

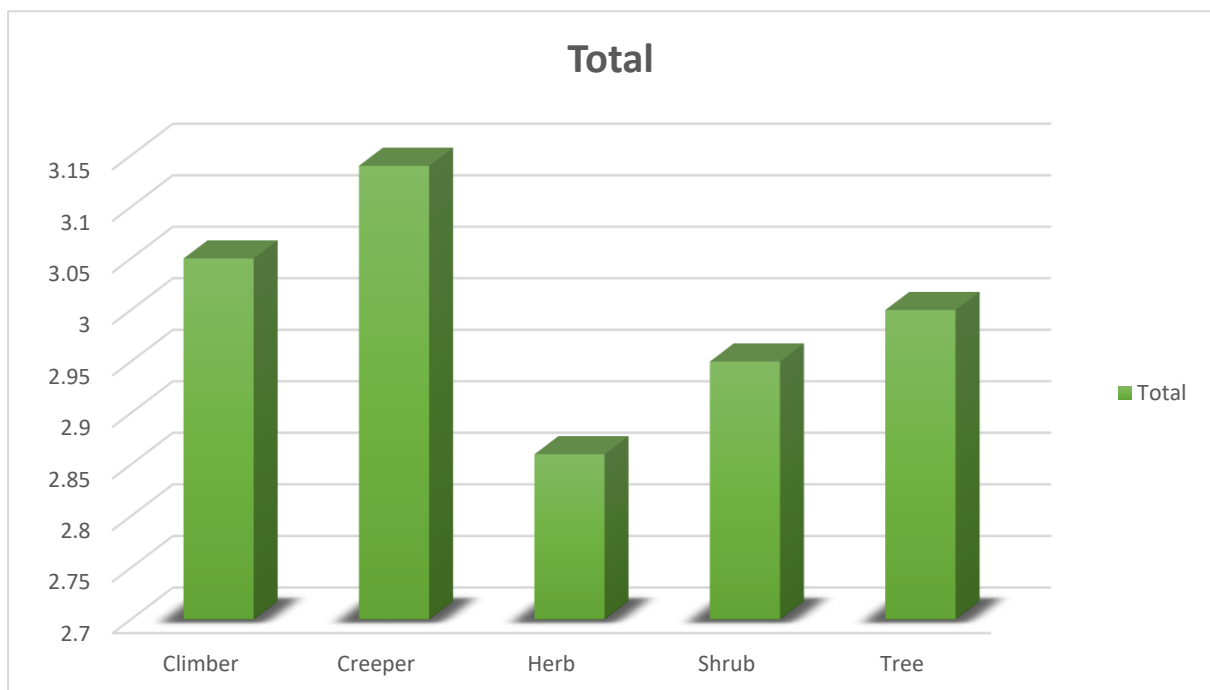
Row Labels	Sum of Plant_ID
Autumn	300
Spring	325
Summer	338
Winter	312
Grand Total	1275

Summary: A pivot table was created to categorize the plants based on their flowering season (Spring, Summer, Autumn, and Winter). This helped in easily counting how many plants flower in each season, providing a clear understanding of the distribution of plants throughout the year. The pivot table efficiently summarized the dataset, allowing for quick analysis of flowering patterns.

2. Use a pivot table to find the average water requirement for each plant type and then create a bar chart to visually represent this data.

Row Labels	Average of Water_Requirement(L/week)
Climber	3.05
Creeper	3.14
Herb	2.86
Shrub	2.95
Tree	3
Grand Total	3

Chart:



Summary: A pivot table was used to calculate the average weekly water requirement for each plant type (Herb, Shrub, Tree, Climber, and Creeper). This analysis provided insights into how much water each plant type requires on average. Additionally, a bar chart was created to

visually represent this data, making it easier to compare the water needs of different plant types at a glance. The visual aid offers a clear and concise way to understand the data.

3. Sort the plants by height in descending order.

Plant_ID	Plant_Name	Type	Height(cm)	Leaf_Color	Flowering_Season	Water_Requirement(L/week)
1	Plant 1	Herb	265	Green	Spring	1.5
2	Plant 2	Shrub	260	Yellow	Summer	1.6
3	Plant 3	Tree	255	Red	Autumn	1.6
4	Plant 4	Climber	250	Purple	Winter	1.7
5	Plant 5	Creeper	245	Variegated	Spring	1.7
6	Plant 6	Herb	240	Green	Summer	1.8
7	Plant 7	Shrub	235	Yellow	Autumn	1.9
8	Plant 8	Tree	230	Red	Winter	1.9
9	Plant 9	Climber	225	Purple	Spring	2
10	Plant 10	Creeper	220	Variegated	Summer	2.1
11	Plant 11	Herb	215	Green	Autumn	2.1
12	Plant 12	Shrub	210	Yellow	Winter	2.2
13	Plant 13	Tree	205	Red	Spring	2.2
14	Plant 14	Climber	200	Purple	Summer	2.3
15	Plant 15	Creeper	195	Variegated	Autumn	2.4
16	Plant 16	Herb	190	Green	Winter	2.4
17	Plant 17	Shrub	185	Yellow	Spring	2.5
18	Plant 18	Tree	180	Red	Summer	2.5
19	Plant 19	Climber	175	Purple	Autumn	2.6
20	Plant 20	Creeper	170	Variegated	Winter	2.7
21	Plant 21	Herb	165	Green	Spring	2.7
22	Plant 22	Shrub	160	Yellow	Summer	2.8
23	Plant 23	Tree	155	Red	Autumn	2.8
24	Plant 24	Climber	150	Purple	Winter	2.9
25	Plant 25	Creeper	145	Variegated	Spring	3
26	Plant 26	Herb	140	Green	Summer	3
27	Plant 27	Shrub	135	Yellow	Autumn	3.1
28	Plant 28	Tree	130	Red	Winter	3.2
29	Plant 29	Climber	125	Purple	Spring	3.2
30	Plant 30	Creeper	120	Variegated	Summer	3.3
31	Plant 31	Herb	115	Green	Autumn	3.3
32	Plant 32	Shrub	110	Yellow	Winter	3.4
33	Plant 33	Tree	105	Red	Spring	3.5
34	Plant 34	Climber	100	Purple	Summer	3.5
35	Plant 35	Creeper	95	Variegated	Autumn	3.6
36	Plant 36	Herb	90	Green	Winter	3.6

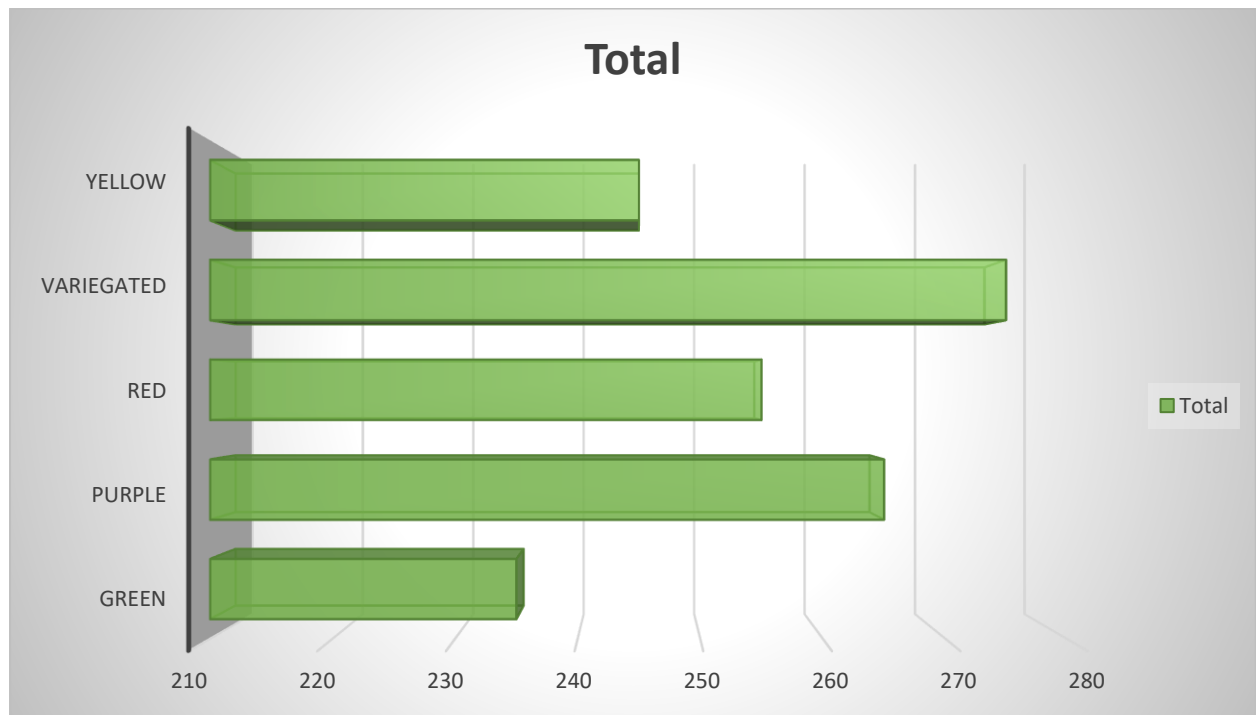
37	Plant 37	Shrub	85	Yellow	Spring	3.7
38	Plant 38	Tree	80	Red	Summer	3.8
39	Plant 39	Climber	75	Purple	Autumn	3.8
40	Plant 40	Creeper	70	Variegated	Winter	3.9
41	Plant 41	Herb	65	Green	Spring	3.9
42	Plant 42	Shrub	60	Yellow	Summer	4
43	Plant 43	Tree	55	Red	Autumn	4.1
44	Plant 44	Climber	50	Purple	Winter	4.1
45	Plant 45	Creeper	45	Variegated	Spring	4.2
46	Plant 46	Herb	40	Green	Summer	4.3
47	Plant 47	Shrub	35	Yellow	Autumn	4.3
48	Plant 48	Tree	30	Red	Winter	4.4
49	Plant 49	Climber	25	Purple	Spring	4.4

4. Filter the data to show only plants with green leaves.

Plant_ID	Plant_Name	Type	Height(cm)	Leaf_Color	Flowering_Season	Water_Requirement(L/week)
1	Plant 1	Herb	265	Green	Spring	1.5
6	Plant 6	Herb	240	Green	Summer	1.8
11	Plant 11	Herb	215	Green	Autumn	2.1
16	Plant 16	Herb	190	Green	Winter	2.4
21	Plant 21	Herb	165	Green	Spring	2.7
26	Plant 26	Herb	140	Green	Summer	3
31	Plant 31	Herb	115	Green	Autumn	3.3
36	Plant 36	Herb	90	Green	Winter	3.6
41	Plant 41	Herb	65	Green	Spring	3.9
46	Plant 46	Herb	40	Green	Summer	4.3

Summary: The dataset was filtered to show only the plants with green leaves. This focused analysis on a specific subset of the data, making it easier to examine the characteristics and water requirements of plants with green leaves. Filtering provided a streamlined view, eliminating unnecessary data and allowing for targeted insights.

5. Create a bar chart showing the number of plants in each leaf color category.



Summary: A pivot table was created to count the number of plants categorized by their leaf color (Green, Yellow, Red, Purple, Variegated). Following this, a bar chart was generated to visually represent the distribution of plants based on their leaf color. The chart offered a clear visual summary of how many plants belong to each color category, highlighting the prevalence of certain leaf colors in the dataset.