

04.Perform Data analysis and summarization 1

Tools for large data sets - Sort, Filter

Overview

In order to facilitate an efficient and effective decision-making process, the people who are dealing with data and information can use different data analysis tools and techniques. Microsoft Excel is kind of a great tool to facilitate this process. Advanced Excel tools like sorting, filtering can be used to analyze data, interpret them and make visualizations using information. This section will guide students on how advanced excel tools can be used to perform data analyzation and visualization.

The following activities will help students to use the sorting, filtering in spreadsheet applications and apply them within different contexts.

Sorting

- If you want to arrange a set of data into a specific order, the feature that you should use is the Sorting option available in spreadsheet applications. It will facilitate effective decision-making, better data visualization, and better organization of your data.



[Sort data in a range](https://support.microsoft.com) – support.microsoft.com



Activity 04.1: What sorting options are available for different types of data?



Activity 04.2

You are provided with the Ice Cream sales information of the “Cadbury Ice” shop which sells Ice creams in different flavors. Use the “Activity 04.2” sheet of 04 SS Activities_ Perform Data analysis and summarization using sorting, filtering Dataset.xlsx file and perform the below actions.

1. Sort the given dataset in alphabetical order based on the Flavor.
2. Sort your dataset in a way that the user can see the revenue from lowest to highest.
3. First, sort the dataset based on the flavor in reverse alphabetical order and then sort it in a way that shows the region based on the below order.
 - i. North
 - ii. West

- iii. East
 - iv. South
4. Add conditional formatting to the price using Icon Set and sort your dataset by using the conditional formatting icon.



Self-Learning Activity

Activity 04.3

“Activity 04.3” sheet of 04 SS Activities_ Perform Data analysis and summarization using sorting, filtering Dataset.xlsx consists of data on the sales performed by each sales representative who works in their organization. Perform the below actions to provide information for the sales manager to make decisions about the performance of each sales representative.

1. Sort the given dataset in alphabetical order based on the name of the salesperson.
2. Sort your dataset in chronological order based on the date.
3. First, sort your dataset based on the salesperson in reverse alphabetical order and then sort it in a way that shows the district based on the below order.
 - i. Uva
 - ii. Western
 - iii. Central
 - iv. Southern
4. Add conditional formatting to the units using Icon Set and sort your dataset by using the conditional formatting icon.

Filtering

- The filtering feature in spreadsheet applications allows you to hide some information in a dataset and you can focus more on data to which you need to pay special attention.



[Filter data in a range](https://support.microsoft.com) – support.microsoft.com



Activity 04.4

You are provided with the Ice Cream sales information of the “Cadbury Ice” shop which sells Ice creams in different flavors. Use the “Activity 04.4” sheet of 04 SS Activities_ Perform Data analysis and summarization using sorting, filtering Dataset.xlsx file and perform the below actions.

1. Filter records where,
 - a. Flavor is Vanilla
 - b. Flavor is Vanilla or Fruit and nut
 - c. Flavor is Vanilla and the customer type is Retail
 - d. Flavor is Vanilla or customer type is Retail
 - e. Flavor is Vanilla and revenue is greater than Rs.100000
 - f. Flavor is Vanilla or revenue is greater than Rs.100000
 - g. Revenue is between 100000 and 400000, or revenue > 900000
 - h. Revenue is between 100000 and 400000, or revenue > 900000 where the particular record(s) should be vanilla and from East region



Self-Learning Activity

Activity 04.5

“Activity 04.5” sheet of 04 SS Activities_ Perform Data analysis and summarization using sorting, filtering Dataset.xlsx consists of the employee details of “DutchMart” company. Perform the below-mentioned actions using it.

1. List all employees who earn more than Rs. 40,000.00.
2. List all employees whose age is less than 30.
3. List all employees who earn more than Rs. 40,000 and whose age is less than 30.
4. List all employees who earn more than Rs. 40,000 or whose age is less than 30.
5. List all employees whose names start with “J”.
6. All employees whose names start with “J” and the third letter is “y”.
7. List all female employees who are working in the Accounting department.
8. List all married employees who are working in the HR or Finance department.
9. List all employees who joined before the 1st of January 2005.
10. List all single employees who earn more than 30,000 and who are working in Marketing or HR departments.
11. List all female employees who earn less than Rs. 30,000.00 and work in the Marketing department or unmarried male employees who earn more than Rs. 40,000.00.