R Program to Sort a Vector

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In this example, you'll learn to sort a vector in R using sort() function.

To understand this example, you should have the knowledge of following R programming topics:

- R Vector
- R Variables and Constants
- R Functions

Sorting of vectors can be done using the `sort()` function. By default, it sorts in ascending order. To sort in descending order we can pass `decreasing=TURE`.

Note that sort is not in-place. This means that the original vector is not effected (sorted). Only a sorted version of it is returned.

Example: Sort a Vector

```
> x
[1] 7 1 8 3 2 6 5 2 2 4
> # sort in ascending order
> sort(x)
[1] 1 2 2 2 3 4 5 6 7 8
> # sort in descending order
> sort(x, decreasing=TRUE)
[1] 8 7 6 5 4 3 2 2 2 1
> # vector x remains unaffected
> x
[1] 7 1 8 3 2 6 5 2 2 4
```

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Sometimes we would want the index of the sorted vector instead of the values. In such case we can use the function `order()`.

```
> order(x)
[1]  2  5  8  9  4 10  7  6  1  3
> order(x, decreasing=TRUE)
[1]  3  1  6  7 10  4  5  8  9  2
> x[order(x)]    # this will also sort x
[1] 1 2 2 2 3 4 5 6 7 8
```