Module 8: Dimensionality Reduction

Case Study – 3

edureka!

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Domain – Health Care

focus – Cancer detection

<u>Business challenge/requirement</u>
John Cancer Hospital (JCH) is a leading cancer hospital in the USA. It specializes in preventing breast cancer.

Throughout the last few years, JCH has collected breast cancer data from patients who came for screening/treatment.

However, this data has almost 30 attributes and is difficult to run and interpret the result. You as an ML expert have to reduce the no. of attributes (Dimensionality Reduction) so that results are meaningful and accurate.

<u>Key issues</u>
Reduce the no. of attributes/features in data to make the results and analysis comprehensible by doctors

<u>Considerations</u>
NONE

<u>Data volume</u>
- Approx 569 records – file breast-cancer-data.csv
Fields in Data

- Details in the ipynb notebook

<u>Additional information</u>
- NA

<u>Business benefits</u>
The improved success rate of cancer detection and hence direct impact on revenue and profit of hospital. More than that it contributes to JCH's mission "Better Life"