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Problem Statement - Engineering Colleges Case Study

Context

Education is fast becoming a very competitive sector with hundreds of institutions to choose from. It is a life-transforming experience for any student and it has to be a thoughtful decision. There are ranking agencies that do a survey of all the colleges to provide more insights to students. Agency RankForYou wants to leverage this year's survey to roll out an editorial article in leading newspapers, on the state of engineering education in the country. Head of PR (Public Relations) comes to you, the data scientist working at RankForYou, and asks you to come up with evidence-based insights for that article.

Objective

To identify different types of engineering colleges in the country to better understand the state of affairs.

Key Questions

. How many different types (clusters/segments) of colleges can be found from the data?

. How do these different groups of colleges differ from each other?

. Do you get slightly different solutions from two different techniques? How would you explain the difference?

Data Description

The data contains survey results for 26 engineering colleges. The initial survey data has been summarized into a rating scale of 1-5 for different factors.

Factor rating index

1 - Very low

2 - Low

3 - Medium

4 - High

5 - Very high

Data Dictionary

SR_NO: Serial Number

Engg_College: 26 Engineering colleges with pseudonyms A to Z

Teaching: Quality of teaching at the engineering college

Fees: Fees at the engineering college

Placements: Job placements after a student graduates from the engineering college

Internship: Student Internships at the engineering college

Infrastructure: Infrastructure of the engineering college

Learning Outcomes

Exploratory Data Analysis

Clustering

Cluster Profiling

Business Recommendations

Steps and Tasks

Import libraries and load dataset

EDA

Perform clustering and do cluster profiling

Provide business recommendations

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