HCL Internship (Mini Project)

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Topic : Attrition in an IT Employe organisation

Objective : Predicting Employee Attrition using Machine learning Algorithms

Scope :

→ Employee Attrition is the gradual reduction in staff members that occurs as employees retire or resign and are not replaced.

→ In this project we are going to predict the attrition of employees there is using Machine learning Algorithms.

→ If we dont predict the attritions of employees there is going to be the louge less of preductivity and turn over.

Approach:

We perfom tumover analysis project by using pythons scikit-Learn library. We use logistic Regression, Random Forest. and support vector wachine as classifier for employee attrition and measure the accuracy of Models that are built.

Flow chart Diagram:

```
┌──────────┐  70% data   ┌──────────────┐        ┌──────────┐
│ Employee │ for analysis│ preliminary  │───────▶│ Machine  │
│  Data    │────────────▶│ Data Analysis│        │ Learning │
└──────────┘             └──────────────┘        │  Model   │
                                                  └────┬─────┘
                                                       │
                                                       ▼
                                            ┌────────────────────┐
                                            │ → optimized model  │
                                            │ → Create champion  │
                                            │   challenger for   │
                                            │   best perfoming model│
                                            └─────────┬──────────┘
                                                      │
                                                      ▼
┌───────────────┐     ┌────────────┐       ┌──────────────────┐
│Model implement│◀────│ Validated? │◀──────│ validate the     │
└───────────────┘     └─────┬──────┘       │ 30% data set     │
                            │              └──────────────────┘
                          NO│
                            ▼
                     ┌─────────────┐
                     │ Rebuild model│
                     └─────────────┘
```

Employ Data: work operiarie Data
skin information
Project worked
Location
Designation

preliminary Data Analysis:
→ check for missing (or) wrony valuesin variables

→ variable reduction and transformation (correlation between continous variables wulticolineary checks).