1. SAP is a leading enterprise software company that provides integrated business solutions, including ERP (Enterprise Resource Planning), to help organizations streamline processes, manage data, and optimize business operations.
2. SAP SuccessFactors is a cloud-based human capital management (HCM) suite offered by SAP, focusing on optimizing HR processes.
3. It encompasses a range of modules such as payroll system, employee performance, learning management, on- and offboarding process and workforce analytics.
4. My project aims to enhance SAP SuccessFactors by introducing a predictive feature. That shows if an employee is about to quit.
5. When it comes to employee turnover, companies have to face a lot of challenges.
6. Attrition can impact productivity, morale, and costs.
7. Here are average percentages of attrition reasons from 2010 to 2020 in Germany. As we can see the majority class here is voluntary termination. So, most people quit on their own and it’s better to know why.
8. Predicting employee departures can help in workforce planning, cost reduction, and maintaining a positive workplace culture.
9. The advantage of SuccessFactors is their accessibility to the data. Everything is stored in one place.
10. It makes the process of data collection easy and fast.
11. For example, in module ‘Onboarding’ we can get data about employee gender and marital status.
12. In payroll system – information about monthly income and hourly rate
13. In the development module, we can gather information about the last promotion and performance rating.
14. This is how the algorithm makes predictions. After cleaning and preparing the data (e.g. handling the outliers, encoding categorical variables, standardizing numerical variables and so on) I built three models: logistic regression, decision tree and KNN model, then using staking method I trained a meta model and, in the end, we get a prediction if a particular employee will quit.
15. These are the key features that I got with the algorithm. Marital status, job satisfaction and educational field.
16. So, what is the use of these features for the users, users will be the HR managers.
17. By implementation, this feature helps the HR manager to offer prevention measures. Such as development of retention strategies, making personalized interventions and creating employee engagement initiatives. Of course, these measures depend on each company.
18. In conclusion, the integration of predictive features into SAP SuccessFactors not only addresses the challenges associated with employee turnover but also empowers HR managers with valuable insights to navigate the workforce management.