Software Requirement Specification: SAC Planning

# A Global Company

Created By: **Anubhav Oberoy**
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## User Persona:

**Tony Hafner** is **Data scientist** working with Anubhav Trainings. He has vast experience in working with machine learning models with all kinds of scenarios. In 2011, he led the development of Stanford University's main Machine Learning Platform Learning and also taught an online Machine Learning class to over 100s of the students, thus helping not just himself but the community. He has been active contributors to all ML and AI based forums.

Hafner also works on machine learning, with an emphasis on deep learning. He had founded and led the "ATS Smart Insight SAC" project, which developed massive-scale deep learning algorithms. This resulted in the growth of the company he worked for, in his achievements one of the achievements was an algorithm developed on internet which a massive neural network with 1 billion parameters learned from unlabeled Google Ads traffic to help SEO experts optimizing their keyword targeting.

## Job Functions:

- Identifying the data-analytics problems that offer the greatest opportunities to the organization
- Determining the correct data sets and variables
- Collecting large sets of structured and unstructured data from disparate sources
- Cleaning and validating the data to ensure accuracy, completeness, and uniformity
- Devising and applying models and algorithms to mine the stores of big data
- Analyzing the data to identify patterns and trends
- Interpreting the data to discover solutions and opportunities
- Communicating findings to stakeholders using visualization and other means

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System: SAP SAC Implementation project

## The Business Story

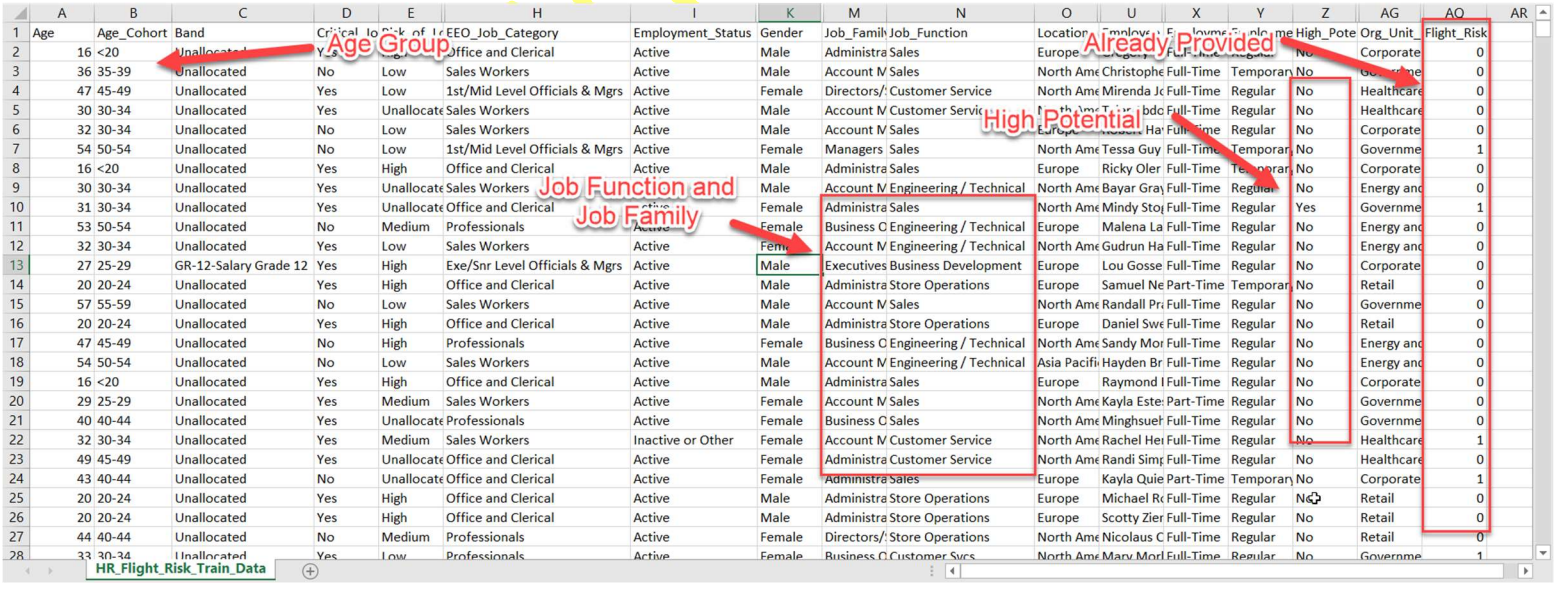
In today's digital age, the competition for high performing employees is greater than ever, and the costs associated with losing and replacing talent can be quite expensive. Organizations are looking to improve employee satisfaction to maintain loyalty, and reduce costs spent on recruiting and training new employees. To achieve this, organizations must take a proactive approach to human resources, instead of a reactive one.

Tony will review how an organization would typically review HR related KPIs, and understand how SAP Analytics Cloud Predictive features could influence proactive employee retention. If HR has to contact all the employees considering all of them will leave the company, it will cause huge cost overhead on the company and create panic, the idea is to help HR department to detect potentially high risk employee which are at high risk. Last year the company's attrition rate was **10.625 %**

Tony would use SAC predictive scenario to help HR department meeting their goals. The goals of the HR department are:
− Improve employee satisfaction to reduce resignations
− Reduce cost of training and ramp-up of new employees, and
− Hire better talent.

Objectives with Smart Predict are in this use case are:
1. Understand reasons for disaffection
2. Act on these reasons proactively to avoid losing employees
3. Identify which employees might potentially leave the organization

Below is the screenshot of all the employee flight(already resigned from company) data provided by HR department

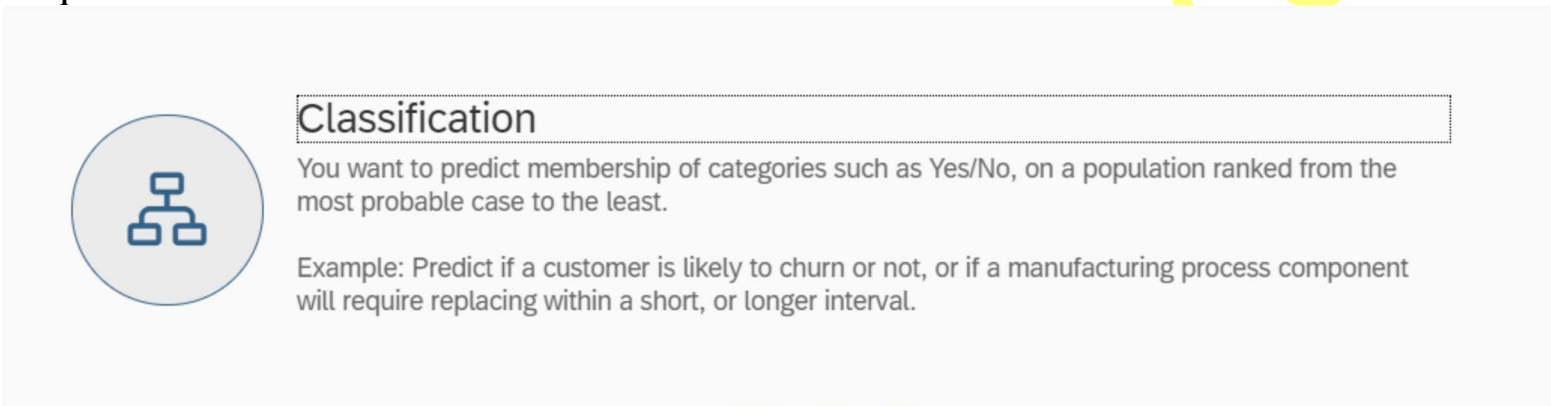


On the HR dashboard you can see KPIs that your organization regularly tracks, including total number of employees, total number of early talents, as well as the average tenure of your employees. Diversity presents a quite good balance between males and females in the organization. The heat map shows information about high potential. Interesting information about high potential employees on the dashboard: It appears that 184 high potential employees are between 25 – 29 years of age. In addition to this, many high potentials are in Account Manager (Sales) roles. As a business analyst, you generally interested in how you can help to improve HR policies. You understand that the goals of the HR department are to reduce costs and hire better talent.

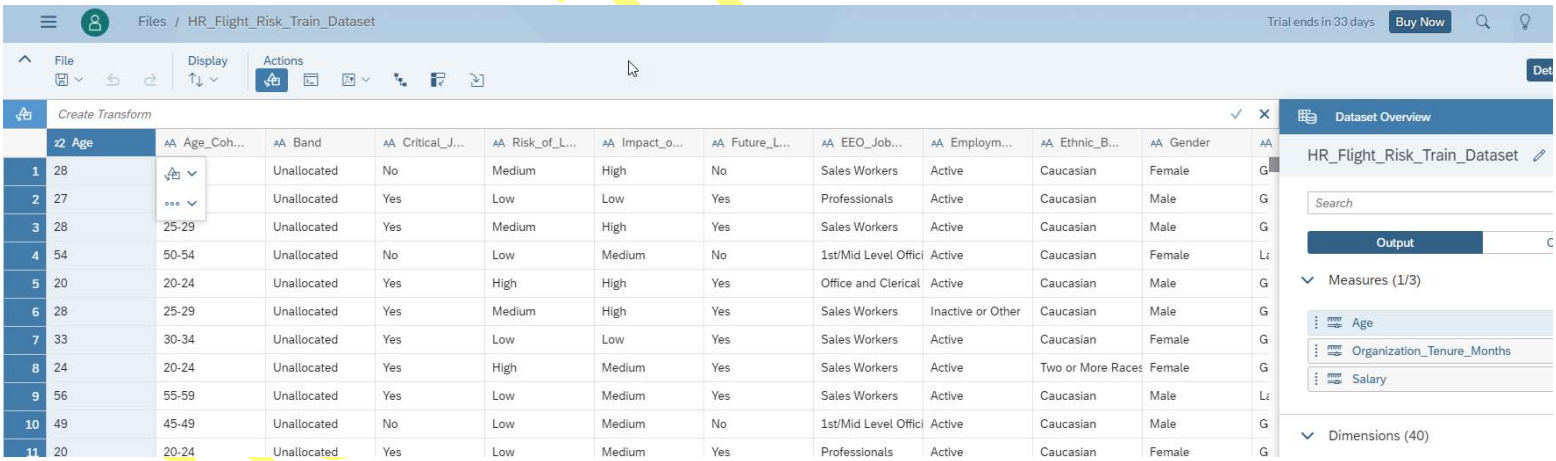
**Existing HR Dashboard in SAC (covered in premium course)**

Upon importing HR data into SAP Analytics Cloud, Tony supposed to create a training dataset, prepare dataset to train the model, Since the outcome is binominal/nominal, **Regression** would be the right choice of scenario to be used.

## Requirement 1: Create the Training dataset
## Requirement 2: Create Predictive Scenario

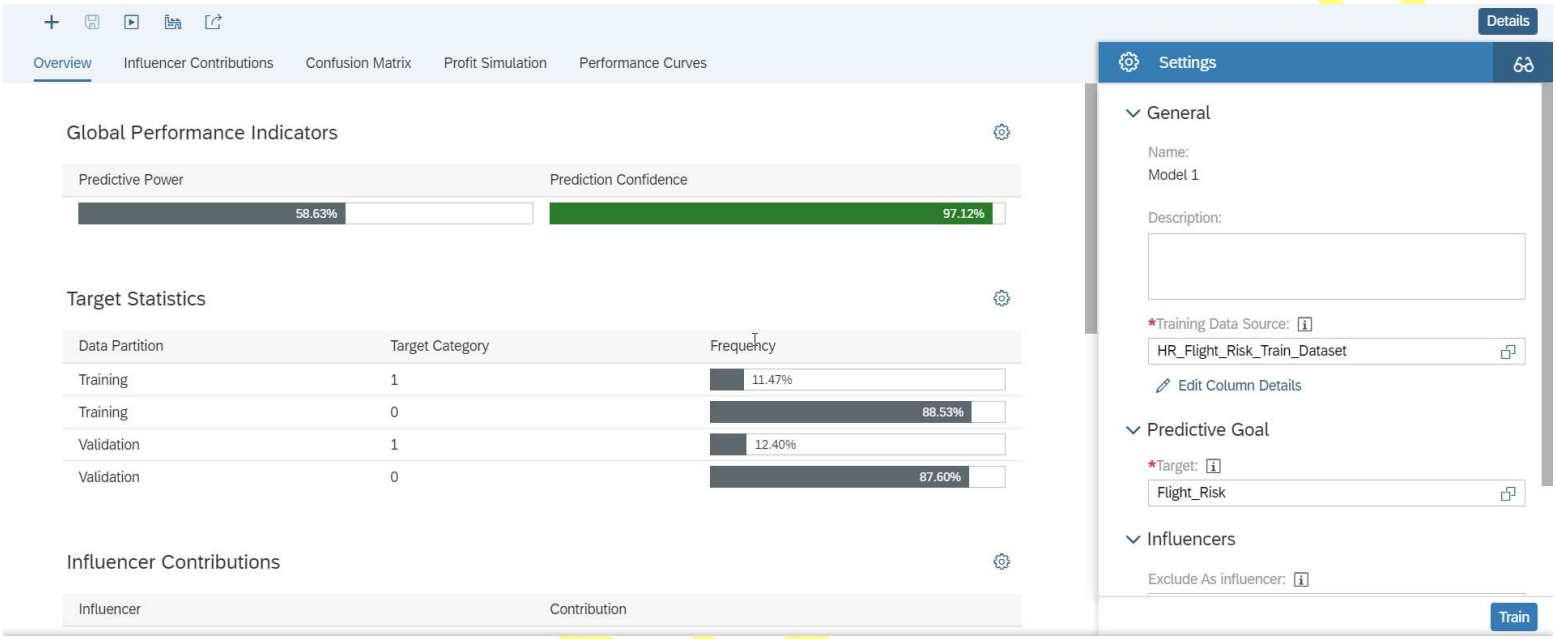



## Requirement 3: Provide the Training dataset (result is known) with the Target variable name



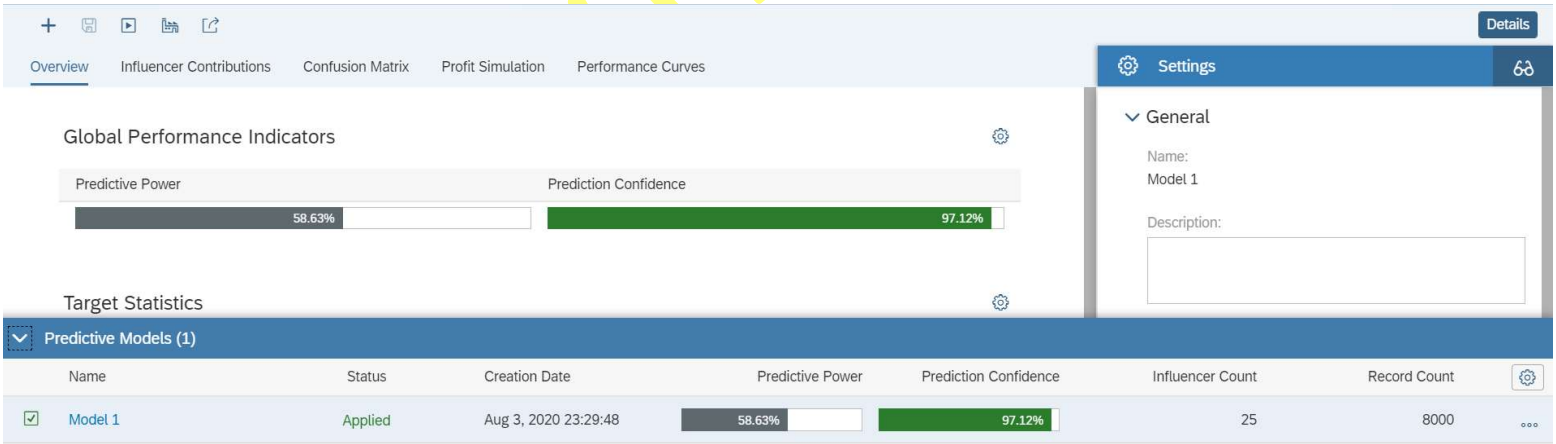

| | Age | Age_Coh... | Band | Critical_J... | Risk_of_L... | Impact_o... | Future_L... | EEO_Job... | Employm... | Ethnic_B... | Gender |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 28 | | Unallocated | No | Medium | High | No | Sales Workers | Active | Caucasian | Female |
| 2 | 27 | | Unallocated | Yes | Low | Low | Yes | Professionals | Active | Caucasian | Male |
| 3 | 28 | 25-29 | Unallocated | Yes | Medium | High | Yes | Sales Workers | Active | Caucasian | Male |
| 4 | 54 | 50-54 | Unallocated | No | Low | Medium | No | 1st/Mid Level Offici | Active | Caucasian | Female |
| 5 | 20 | 20-24 | Unallocated | Yes | High | High | Yes | Office and Clerical | Active | Caucasian | Male |
| 6 | 28 | 25-29 | Unallocated | Yes | Medium | High | Yes | Sales Workers | Inactive or Other | Caucasian | Male |
| 7 | 33 | 30-34 | Unallocated | Yes | Low | Low | Yes | Sales Workers | Active | Caucasian | Female |
| 8 | 24 | 20-24 | Unallocated | Yes | High | Medium | Yes | Sales Workers | Active | Two or More Races | Female |
| 9 | 56 | 55-59 | Unallocated | Yes | Low | Medium | Yes | Sales Workers | Active | Caucasian | Male |
| 10 | 49 | 45-49 | Unallocated | No | Low | Medium | No | 1st/Mid Level Offici | Active | Caucasian | Male |
| 11 | 20 | 20-24 | Unallocated | Yes | Low | Medium | Yes | Professionals | Active | Caucasian | Female |

## Requirement 4: Analyze the results as per the metrics shown by Anubhav for Classification.




## Requirement 5: Understand the Confusion Matrix and Profit Simulation.


Requirement 6: Apply the Model on application dataset to predict the flight risk of the employee.



# Requirement 7: Create a BI Model using the output dataset

| _Flight_... | 2_Flight_... | 3_Flight_... | 3_Flight_... | Predicted ... | Assigned ... | Outlier In... | Prediction... |
|---|---|---|---|---|---|---|---|
| c Background | Caucasian | Employment Type | Part-Time-Regular | 0 | 2 | null | 0.2745215965241( |
| Years) | 42-61 | Position Tenure (M | 28-62 | 1 | 1 | null | 0.62394997594928 |
| c Background | Caucasian | Organization Tenur | 63-185 | 0 | 9 | null | 0.00003895777673 |
| c Background | Caucasian | Employment Type | Full-Time-Temporar | 0 | 4 | null | 0.12120812510806 |
| ion Tenure (M | 43186 | Employment Type | Part-Time-Regular | 0 | 5 | null | 0.10749332988389 |
| | Unallocated | Generation | Generation Y (1979 | 0 | 3 | null | 0.12315712194420 |
| Years) | 42-61 | City | Unallocated | 1 | 1 | null | 0.35932598281382 |
| | Unallocated | Employment T | Full-Time-Regular | 0 | 3 | null | 0.14809973715310 |
| ion Tenure (M | 63-185 | Age (Years) | 62-79 | 0 | 5 | null | 0.10408295445699 |
| ration | Early Boomers (19 | Band | Unallocated | 0 | 2 | null | 0.28146061161986 |
| nization Tenur | 63-185 | Position Tenure (M | 63-185 | 0 | 4 | null | 0.12232768640258 |

Predicted values

Probability

Quantile

# Requirement 8: Display the result in BI story by enhancing the HR dashboard

For detailed training on SAP Analytics cloud with such real time scenarios, feel free to get in touch with us on
contact@anubhavtrainings.com
Visit us at: https://www.anubhavtrainings.com