Low Level Design

# HR ANALYTICS

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# 1. Problem Statement

HR is not just about hiring people it is an ocean of its own. HR department goes through

a constant journey of finding, selecting, onboarding and monitoring the right talent. You

are required to use analytics concept to provide a smooth monitoring of workforce for

the HR department.

To investigate how the company objective factors influence in attrition of employees,

and what kind of working environment is most likely to cause attrition.

You shall be looking at all variables through some charts and infer about it in my

exploratory analysis. And through my exploration you shall try to identify the Variables

that tend to have an impact in the attrition of the most experienced and talented

employees and try to fit a linear regression model and use it to test hypotheses and

draw inferences.

# 2. Aim

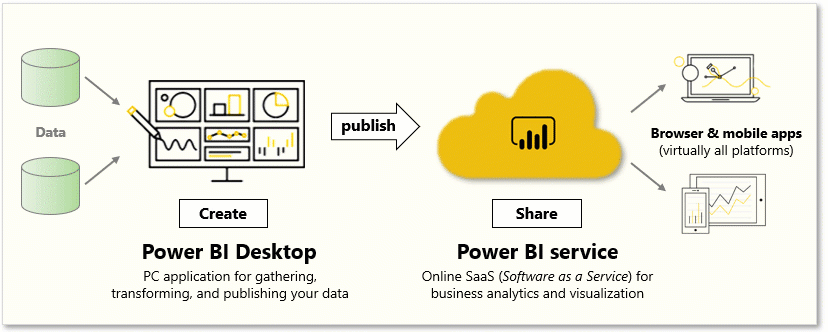
* To investigate how the company objective factors influence in attrition of employees, and what kind of working environment is most likely to cause attrition.
* We shall be looking at all variables through some charts and infer about it in exploratory analysis. And through exploration we shall try to identify the Variables that tend to have an impact in the attrition of the most experienced and talented employees and try to fit a linear regression model and use it to test hypotheses and draw inferences.

# 3.Architecture

Power Bi is a business suite that includes several technologies that work together. To deliver outstanding business intelligence solutions, Microsoft Power Bi technology consists of a group of such components such as:

* Power Query (for data mash-up and transformation)
* Power BI Desktop (a companion development tool)
* Power BI Mobile (for Android, iOS, Windows phones)
* Power BI Pivot (for in-memory tabular data modelling)
* Power BI View (for viewing data visualisation)
* Power BI Map (for visualizing 3D geo-spatial data)
* Power BI Q&A (for natural language Q&A)

The architecture of entire project is shown below:



* Our entire data source is our excel file. This excel file is connected to the Power Bi server. From the server, data can be shown and accessed.
* Power Bi server has various architectural components regarding to solve the query.
* The functionalities show the result according to query entered by the end user or client.
* Client entered the query to show the graph, after selecting the data in form of rows and columns it will go inside the Power Bi server. In Power Bi server, it understands the query and generates the best recommended charts based on selected data and return it into the Power Bi screen.
* Based on recommended charts, client can make the visual aspect of the same.
* If client is not satisfied with the result, he/she has to select data accordingly otherwise make required changes to show the expected result.

# 4. Data Description

* Data was given in single excel file named as hr\_analytics.csv
* hr\_analytics.csv includes
* Attrition
* Business Travel
* CF\_age\_band,
* CF\_attrition label,
* Department,
* Education Field,
* emp\_no,
* Employee Number,
* Gender,
* Job Role,
* Marital Status,
* Over time,
* Over18,
* Training times Last Year,
* Age,
* CF\_Current Employee,
* Daily Rate,
* Distance,
* Education,
* Employee,
* Environment Satisfaction
* Hourly Rate,
* Job Involvement,
* Job level,
* Job Satisfaction,
* Monthly Income,
* Monthly Rate,
* Num Companies Worked,
* Percent Salary Hike,
* Performance Rating,
* Relationship Satisfaction,
* Standard Hours,
* Stock Option Level,
* Total Working Years,
* Work Life Balance,
* Years At Company,
* Years in Current Role,
* Years since last Promotion,
* Year with current Manager

# 5. Connect Data With Powerbi

* Open PowerBi desktop.
* Connect it with the Excel files
* Import and Load these files.
* Make sure there is good internet connection for better experience.