

# Calc\_vif Explanation

```
from statsmodels.stats.outliers_influence import variance_inflation_factor

def calc_vif(X):

    # Calculating VIF
    vif = pd.DataFrame()
    vif["variables"] = X.columns
    vif["VIF"] = [variance_inflation_factor(X.values, i) for i in range(X.shape[1])]

    return(vif)
```

```
calc_vif(dataset[["etest_p", "salary"]])
```

	variables	VIF
0	etest_p	2.826904
1	salary	2.826904

- 1) We imported the **variance\_inflation\_factor** function from the **statsmodels.stats.outliers\_influence** module.
- 2) A table is created to evaluate the VIF (Variance Inflation Factor) of the variables.
- 3) The column names are set up to display the variable names under "variables".
- 4) Using the **shape** method, we determine the number of columns and iterate over them in a loop.
- 5) For each variable, the VIF is calculated based on its values.
- 6) Finally, the func\_tion returns the DataFrame containing the VIF values.