Module 4 – Model Development

Question 1: Let X be a dataframe with 100 rows and 5 columns, let y be the target with 100 samples,assuming all the relevant libraries and data have been imported, the following line of code has been executed:
LR = LinearRegression()
LR.fit(X, y)
yhat = LR.predict(X)
How many samples does yhat contain :

- 5
- 500
- **100**
- 0

Question 2: What value of R^2 (coefficient of determination) indicates your model performs best ?

- -100
- -1
- 0
- **1**

Question 3: What statement is true about Polynomial linear regression

- Polynomial linear regression is not linear in any way
- **Although the predictor variables of Polynomial linear regression are not linear the relationship between the parameters or coefficients is linear.**
- Polynomial linear regression uses wavelets

Question 4: The larger the mean square error, the better your model has performed

- **False**
- True

Question 5: Assume all the libraries are imported, y is the target and X is the features or dependent variables, consider the following lines of code:
Input = [('scale', StandardScaler()), ('model', LinearRegression())]
pipe = Pipeline(Input)
pipe.fit(X,y)
ypipe = pipe.predict(X)
What have we just done in the above code?

- Polynomial transform, Standardize the data, then perform a prediction using a linear regression model
- **Standardize the data, then perform prediction using a linear regression model**
- Polynomial transform then Standardize the data