**Diamonds prices Dataset:**

**Description:**

price in US dollars (\$326--\$18,823)
carat weight of the diamond (0.2--5.01)
cut quality of the cut (Fair, Good, Very Good, Premium, Ideal)
colour diamond colour, from J (worst) to D (best)
clarity a measurement of how clear the diamond is (I1 (worst), SI2, SI1, VS2, VS1, VVS2, VVS1, IF (best))
x length in mm (0--10.74)
y width in mm (0--58.9)
z depth in mm (0--31.8)
depth total depth percentage = z / mean (x, y) = 2 * z / (x + y) (43--79)
table width of top of diamond relative to widest point (43--95)

**Steps to Perform the Model:**

1.Loading the data

2.Preprocessing.

a) Print the first 5 rows of the dataset

b) Check the features in the dataset

c)Check the missing values

d)Check the numerical features in the dataset

e) Check the distribution of categorical columns

3.Separate features and Labels

4.Splitting the Data into Training and Testing

5.Creating Deep Learning- Artificial Neural Networks(ANN) model

6.Hyperparameter tuning of ANN

Find the best set of parameters using grid search

7.Training the ANN model with the best parameters

8.Finding the accuracy of the model

9. Visualize train and validation Accuracy and Losses for every model.

INNOMATICS
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**Note:** For any doubt's clarifications, Join the mentor session from 2:00 pm to 6:00 pm or reach us on Discord 10:00 AM to 5:00 PM.

**Thanks, and Regards,**
Innomatics.