AIML – ASSIGNMENT

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1. **Read the Data with Pandas and Describe It:** First, we'll download the dataset from the provided link and load it into a pandas DataFrame. Then we'll use the `describe()` function to generate summary statistics for each column. This will give us insights into the central tendency, dispersion, and shape of the dataset.

2. **Find Data Types and Shape of Each Column:** We'll determine the data type (dtype) of each column in the DataFrame. Additionally, we'll check the shape of the DataFrame (number of rows and columns).

3. **Handle Null Values:** If there are any null (missing) values in the dataset, we'll either fill them with zeros or replace them with the mean value of the respective column.

4. **Identify Features and Target Variables:** We'll separate the features (independent variables) from the target variable (dependent variable). Features are the columns used to predict the target, while the target is the variable we want to predict.

5. **Split the Data into Train and Test Sets:** We'll split the dataset into training and testing subsets. The training set will be used to train our machine learning model, and the testing set will be used to evaluate its performance.

6. **Normalize the Data with Min-Max Scaling:** Finally, we'll scale the features using min-max scaling, which ensures that all features have the same scale (usually between 0 and 1).