Machine Learning Assignment – 2

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1. Pandas

1. Read the provided CSV file ‘data.csv’. <https://drive.google.com/drive/folders/1h8C3mLsso-R-sIOLsvoYwPLzy2fJ4IOF?usp=sharing>

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* Read the provided CSV file

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2. Show the basic statistical description about the data.

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3. Check if the data has null values. a. Replace the null values with the mean

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4. Select at least two columns and aggregate the data using: min, max, count, mean.

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5. Filter the dataframe to select the rows with calories values between 500 and1000.

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6. Filter the dataframe to select the rows with calories values > 500 and pulse

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7. Create a new “df\_modified” dataframe that contains all the columns from df except for “Maxpulse”.

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8. Delete the “Maxpulse” column from the main df dataframe

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9. Convert the datatype of Calories column to int datatype.

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10. Using pandas create a scatter plot for the two columns (Duration and Calories).

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2. Scikit-learn

1. Implement Naïve Bayes method using scikit-learnlibrary.

a. Use the glass dataset available in Link also provided in your assignment.

b. Use train\_test\_split to create training and testing part.

2. Evaluate the model on testing part using score and classification\_report(y\_true, y\_pred)

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1. Implement linear SVM method using scikit library

a. Use the glass dataset available in Link also provided in your assignment.

b. Use train\_test\_split to create training and testing part.

2. Evaluate the model on testing part using score and classification\_report(y\_true, y\_pred)

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