Data Science Quiz Day 1

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| Instructor: | Stuart Whipp, Ben Whalley | Name: |  |
|  |  | Date: |  |

Try your best to answer these questions based on topics discussed thus far. Expected to take 15-30 minutes with discussion.

1. Which of the following is appropriate if I wish to predict temperature in °C to a high degree of precision (lots of decimal places)?
   1. Classification model
   2. Regression model
   3. Softmax function
2. Which of the following applies to classification problems? (circle all that apply)
   1. RMSE
   2. MAE
   3. Accuracy
   4. Recall
   5. Precision
3. What is the term RMSE shorthand for?
   1. Relative Mean Sum Error
   2. Root Mean Square Error
   3. Real Median Sum Equivalent
4. Similarly, what does the term MAE stand for?
   1. Mean Absolute Error
   2. Mean Average Error
   3. Median Absolute Error
5. Which of the following can be interpreted from the ‘margins’ of a confusion matrix?
   1. Precision
   2. Recall
   3. Explainability
6. What python library is useful for representing data in ‘tables’ and has lots of ‘methods’ for calculating statistics across our datasets?
   1. Numpy
   2. Matplotlib
   3. Pandas
7. What is the name for the ‘tables’ of data with multiple columns, within this library noted?
   1. DataStore
   2. Dictionary
   3. DataFrame
8. What line of code would be useful if we wished to build a Random Forest, to categorise NASA engine data into ‘healthy’ or ‘unhealthy’ data?
   1. **from** **sklearn.ensemble** **import** RandomForestRegressor
   2. **from** **sklearn.ensemble** **import** RandomForestClassifier
   3. **from** **keras** **import** layers
9. What line of code might be useful if we wished to build a neural network?
   1. **from** **sklearn.ensemble** **import** RandomForestRegressor
   2. **from** **sklearn.ensemble** **import** RandomForestClassifier
   3. **from** **keras** **import** layers
10. What is a Random Forest?
    1. A series of decision trees executed in parallel, with aggregated outputs
    2. A way to select 1 decision tree from lots of potential trees
    3. A type of neural network in Keras library