

	<b>Mastery 20 points</b>	<b>Comments / Activities to Review</b>
<b>Data Preprocessi ng</b>	<p>The submission does all of the following:</p> <ul style="list-style-type: none"> <li>✓ Data is correctly split into a training and test set.</li> <li>✓ Categorical features are converted to numeric with <code>get_dummies</code></li> <li>✓ Missing categorical features in the testing data are filled in programmatically</li> <li>✓ Data is scaled with <code>StandardScaler</code>.</li> </ul>	<p>19.2.4 on preprocessing data and <code>get_dummies()</code> and <code>StandardScaler()</code>. Make sure you avoid bias (think about what data you are applying the preprocessing to, train vs test).</p> <p>Make sure to loop over the dataset columns to fill in missing features (columns/variables) present in train data but not test data</p>
<b>Reflection and Reporting</b>	<p>The submission does all of the following:</p> <ul style="list-style-type: none"> <li>✓ Makes a prediction on which model will perform better on the <i>unscaled</i> data. The prediction is made with adequate justification. (Note: no points are removed for predictions that prove to be incorrect).</li> <li>✓ Makes a prediction on which model will perform better on the <i>scaled</i> data. The prediction is made with adequate justification. (Note: no points are removed for predictions that prove to be incorrect).</li> <li>✓ Makes a comparison between predicted behavior of the models on unscaled data and the actual results.</li> <li>✓ Makes a comparison between predicted behavior of the models on scaled data and the actual results.</li> </ul>	<p>For insights on the importance of scaling, please read:</p> <p><a href="https://scikit-learn.org/stable/auto_examples/preprocessing/plot_scaling_importance.html">https://scikit-learn.org/stable/auto_examples/preprocessing/plot_scaling_importance.html</a></p> <p>Optional:</p> <p><a href="https://towardsdatascience.com/scale-standardize-or-normalize-with-scikit-learn-6ccc7d176a02">https://towardsdatascience.com/scale-standardize-or-normalize-with-scikit-learn-6ccc7d176a02</a></p> <p>Do you think random forest classifiers require scaling? Google it! And cite your sources in the report!</p> <p>Make sure you make note of what you expect before you run the model (you must make an <u>educated</u> guess), and whether the output concurs and not, and <u>why</u></p>
<b>Model Creation</b>	<p>The submission does all of the following:</p>	<p>Logistic regression activities: 19.1.5-6, 19.2.1</p> <p>Random forest activities: 19.3.1-5 (no need to do feature selection, just define model, train and test)</p>

	<div>✓ Creates, trains, and scores a LogisticRegression model on unscaled data</div> <div>✓ Creates, trains, and scores a LogisticRegression model on scaled data</div> <div>✓ Creates, trains, and scores a RandomForestClassif ier model on unscaled data</div> <div>✓ Creates, trains, and scores a RandomForestRegress ion model on scaled data</div>	
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