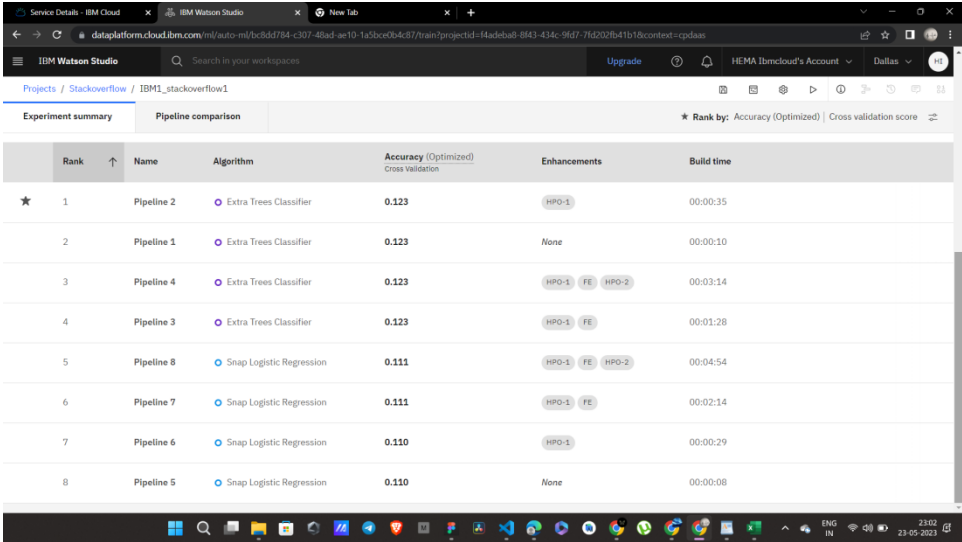


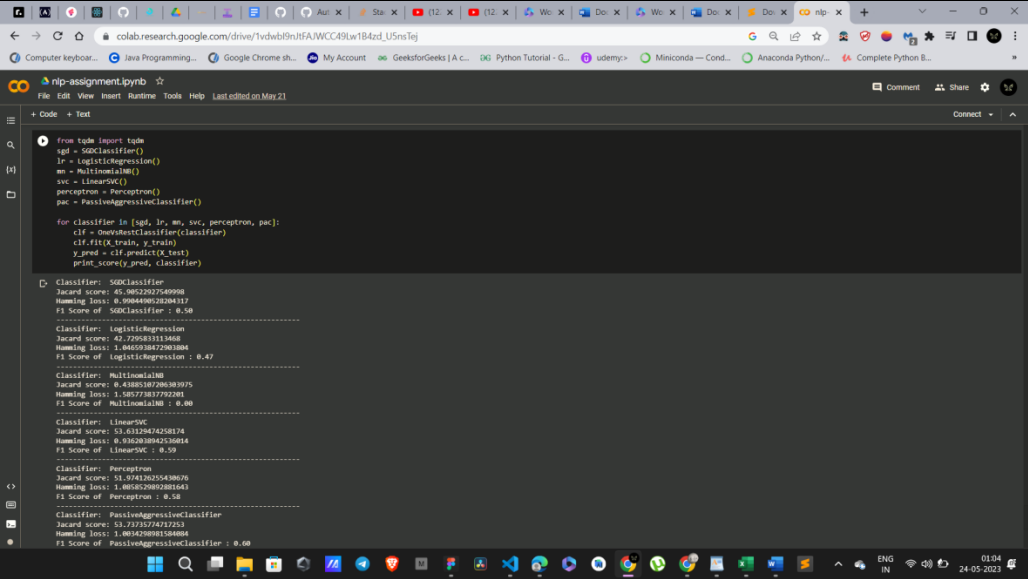
Project Development Phase Model Performance Test

Date	24 May 2023
Team ID	NM2023TMID16247
Project Name	Project – Autonomous tagging of stack overflow questions

Model Performance Testing:

Project team shall fill the following information in the model performance testing template.

S.No.	Parameter	Values	Screenshot																																																															
1.	Metrics	<p>Regression Model: MAE - , MSE - , RMSE - , R2 score -</p> <p>Classification Model: Confusion Matrix - , Accuray Score- & Classification Report -</p>	<div><p>MEASURING THE PERFORMANCE USING METRICS</p><pre>[1] from sklearn.metrics import mean_squared_error, r2_score, mean_absolute_error [2] # Calculate MAE, MSE, and RMSE mae = mean_absolute_error(y_test, y_pred) mse = mean_squared_error(y_test, y_pred) rmse = np.sqrt(mse) [] # Calculate R2 score r2 = r2_score(y_test, y_pred) [] r2 0.6771836577202396</pre></div> <div><table><thead><tr><th></th><th>Rank</th><th>Name</th><th>Algorithm</th><th>Accuracy (Optimized) Cross Validation</th><th>Enhancements</th><th>Build time</th></tr></thead><tbody><tr><td>★</td><td>1</td><td>Pipeline 2</td><td>Extra Trees Classifier</td><td>0.123</td><td>HPO-1</td><td>00:00:35</td></tr><tr><td></td><td>2</td><td>Pipeline 1</td><td>Extra Trees Classifier</td><td>0.123</td><td>None</td><td>00:00:10</td></tr><tr><td></td><td>3</td><td>Pipeline 4</td><td>Extra Trees Classifier</td><td>0.123</td><td>HPO-1 FE HPO-2</td><td>00:03:14</td></tr><tr><td></td><td>4</td><td>Pipeline 3</td><td>Extra Trees Classifier</td><td>0.123</td><td>HPO-1 FE</td><td>00:01:28</td></tr><tr><td></td><td>5</td><td>Pipeline 8</td><td>Snap Logistic Regression</td><td>0.111</td><td>HPO-1 FE HPO-2</td><td>00:04:54</td></tr><tr><td></td><td>6</td><td>Pipeline 7</td><td>Snap Logistic Regression</td><td>0.111</td><td>HPO-1 FE</td><td>00:02:14</td></tr><tr><td></td><td>7</td><td>Pipeline 6</td><td>Snap Logistic Regression</td><td>0.110</td><td>HPO-1</td><td>00:00:29</td></tr><tr><td></td><td>8</td><td>Pipeline 5</td><td>Snap Logistic Regression</td><td>0.110</td><td>None</td><td>00:00:08</td></tr></tbody></table></div>		Rank	Name	Algorithm	Accuracy (Optimized) Cross Validation	Enhancements	Build time	★	1	Pipeline 2	Extra Trees Classifier	0.123	HPO-1	00:00:35		2	Pipeline 1	Extra Trees Classifier	0.123	None	00:00:10		3	Pipeline 4	Extra Trees Classifier	0.123	HPO-1 FE HPO-2	00:03:14		4	Pipeline 3	Extra Trees Classifier	0.123	HPO-1 FE	00:01:28		5	Pipeline 8	Snap Logistic Regression	0.111	HPO-1 FE HPO-2	00:04:54		6	Pipeline 7	Snap Logistic Regression	0.111	HPO-1 FE	00:02:14		7	Pipeline 6	Snap Logistic Regression	0.110	HPO-1	00:00:29		8	Pipeline 5	Snap Logistic Regression	0.110	None	00:00:08
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2.	Tune the Model	Hyperparameter Tuning - Validation Method -	
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