**Project Development Phase**

**Model Performance Test**

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| Date | 20 November 2023 |
| Team ID | TEAM-593070 |
| Project Name | Project – Image Caption Generation |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

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

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| **S.No.** | **Parameter** | **Values** | **Screenshot** |
|  | Metrics | **BLEU-1 SCORE: 0.55112**  **BLEU-2 SCORE: 0.328761** |  |
|  | Tune the Model | Validation Method - the model is trained on the training set (**train\_ids**), and the performance is evaluated on the testing set (**test\_ids**). This allows assessing how well the model generalizes new, unseen data, helping identify potential overfitting or underfitting issues.  Hyperparameter Tuning – we applied diffent values for learning rates, drop out rates and different number of LSTM units.  when parameters are:  epochs = 15  batch\_size = 30  embedding\_size = 300  lstm\_units = 512  dense\_units = 256  dropout\_rate = 0.5  BLEU-1: 0.544428  BLEU-2: 0.317364  when parameters are:  epochs = 15  batch\_size = 30  embedding\_size = 200  #smaller embedding size  lstm\_units = 256  #fewer LSTM units  dense\_units = 128  #fewer dense units  dropout\_rate = 0.4  #slightly reduced dropout rate  BLEU-1: 0.505446  BLEU-2: 0.284825 |  |