



Model Development Phase Template

| Date | 29 November 2024 |
|---------------|-------------------------------------------------------------------------------|
| Team ID | 740108 |
| Project Title | Unveiling Climate Change Dynamics Through Earth Surface Temperature Analysis. |
| Maximum Marks | 10 Marks |

Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include a summary and training and validation performance metrics for multiple models, presented through respective screenshots.

Initial Model Training Code (5 marks):

Paste the screenshot of the model training code

Model Validation and Evaluation Report (5 marks):

| Model LSTM | Summary | | | Training and Validation Performance Metrics |
|----------------------|-------------------------------------------------------------------------------------------------|-----------------|---------|--------------------------------------------------------------------------|
| LSTM | | | | |
| | → Model: "sequential_3" | W | | → Epoch 1/5 |
| | Layer (type) | Output Shape | Param # | 2042/2042 — 28s 12ms/step - loss: 0.0545 - val_loss: 0.0669 |
| | lstm_6 (15TM) | (None, 10, 128) | 66,560 | Epoch 2/5 2042/2042 44s 13ms/step - loss: 0.0465 - val_loss: 0.0464 |
| | lstm_7 (LSTM) | (None, 64) | 49,408 | Epoch 3/5 |
| | dense_6 (Dense) | (None, 25) | 1,625 | 2042/2042 — 40s 13ms/step - loss: 0.0573 - val_loss: 0.0378 Epoch 4/5 |
| | dense_7 (Dense) | (None, 1) | 26 | 2042/2042 41s 13ms/step - loss: 0.0512 - val_loss: 0.0413 |
| | Total params: 117,619 (459.45 Trainable params: 117,619 (45 Non-trainable params: 0 (0.00 | 9.45 KB) | | Epoch 5/5 2042/2042 — 26s 13ms/step — loss: 0.0435 — val_loss: 0.0409 |