Movement Status

You can download the initial file for this question from this link.

Amiral started a research project on human physical activities in the first steps of his company. In this project, motion sensors have been attached to the right thigh and lower back of a number of volunteers, and these sensors have recorded the acceleration data of these two areas for 2 hours. Now Amiral wants to implement a model that can detect the individual's movement status (walking, running, etc.) with this data. For this, he has labeled the data of one of the volunteers from the beginning of the sensor attachment up to a specific time, and asks you to design a model that predicts the time from that point onward.

Evaluation Metric

The `F1 Score` metric is used to evaluate your model, and the averaging method is `macro`. To score in this question, your model must have an `F1 Score` of at least 0.40, and in this case, the final score is calculated based on the following formula:

$$round(f1score, 3) \times 100$$

If your model does not reach the minimum threshold, the received score will be **zero**.

▼ **Attention**

During the competition, the score you observe is only the result of your model's evaluation on 30% of the test data. After the competition time ends, your **final score** will be calculated on the remaining 70%.

This is done to prevent `overfitting` and maintain the generality of the model to ensure that models that have been overfitted will drop in the final scoring.

How to Submit the Answer

To answer this question, first open the notebook file included in the initial file and then follow the steps as requested. Finally, after executing the answer-generating cell (the last cell of the notebook file), submit the created `result.zip` file.

▼ **Important Warning**

Note that before executing the answer-generating cell, save the changes made in the notebook using the shortcut key `ctrl+s` ; otherwise, your **score** will change to **zero** at the end of the competition.

Also, if you are using Colab to run this notebook file, before submitting the `result.zip` file, download the latest version of your notebook and include it in the submission file.