INSTRUCTIONS AND USEFUL INFORMATIONS – FAQ

1. Q: Should/can I use my own computer to train my algorithms for the competition?

   A: No, in order to ensure that every team has access to the same computing resources, each team will be assigned its own Google Cloud machine with the following specifications:

   - n1-standard-4 (4 vCPUs, 15 GB RAM)
   - 25 Gb disc
   - GPU NVIDIA Tesla K80
   - OS Ubuntu 16.04 LTS

2. Q: How do I access my machine?

   A: See sections “II. Working with Jupyter” and “III. Connecting via SSH” below.

3. Q: Do I need to use any specific programming language to develop my solution?

   A: Yes, you must use Python 3.

4. Q: Does my machine come preinstalled with the required software?

   A: Yes, CUDA, cuDNN and Python 3.5 are already installed, as well as many useful Python libraries (e.g.: Numpy, OpenCV, Scikit-Learn, TensorFlow, PyTorch, etc.).

5. Q: Can I install further Python packages?

   A: Yes, you may install whatever packages you want. The recommended way is using pip3 (see section “III. Connecting via SSH” below).

6. Q: How do I submit my predictions?

   A: You do not have to submit anything explicitly. All you need to do is making sure you implement your inference step properly, in a Jupyter notebook named “test.ipynb”, which you will find in your machine (see section “II. Working with

Jupyter"). Your code will be run by the competition organizers on the test data in a separate machine, in order to generate your predictions. Please note that you will not have access to the test data at any time during the competition.

7. Q: When and how is the leaderboard updated?

   A: The public leaderboard will be updated daily. Each day, at around 12:00 PM, your "test.ipynb" will be copied (together with all additional files that you may have created and packages you may have installed) to a separate machine and will be run there, so it does not interfere with any jobs that you might be running in your machine. Note that the public leaderboard will show results for a fraction of the test data only. The final leaderboard, computed using the whole test set, will be published on Friday, 13th July, in the morning. The leaderboard will be published at the VISUM Github under "Project": https://github.com/visum-summerschool/visum-2018/tree/master/Project.

8. Q: Is there any maximum execution time that my inference script should respect?

   A: Your "test.ipynb" should run in reasonable time: anything around one hour or less for generating the predictions for the whole training set should be fine. In the daily leaderboard, there will be a **30 min.** time limit for generating the predictions on the public test set. In the final leaderboard, the time limit will be increased to **3 hours** for generating the predictions on the complete test set.

9. Q: Can two or more people be editing the same Jupyter notebook file simultaneously?

   A: No, unfortunately Jupyter notebook does not support collaborative editing. Please notice that two or more people can work on **different** .ipynb or .py files, but not on the **same** file.

10. Q: What is the competition deadline?

    A: The precise time is yet to be defined, but it will not be before 12:00 PM of Thursday, 12th July.

11. Q: I am not running any code, but my GPU memory is full.

    A: You might have idle notebooks that are occupying resources. Please ensure you have no notebooks in green . You can stop Python notebooks by selecting them and then clicking Shutdown. Note that Keras and TensorFlow, by default, use all GPU memory available.

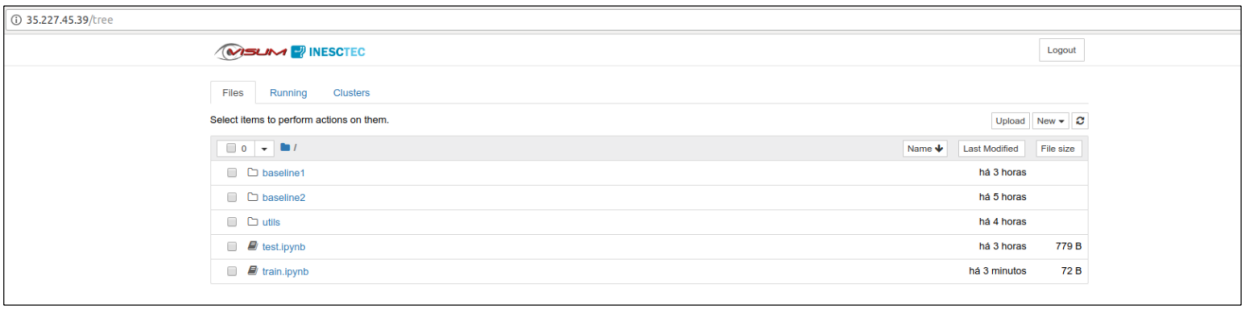
12. Q: I have read every section in this document and I still have questions. / I am having technical issues connecting to the machine, etc. Can anybody help me?

    A: Sure, VISUM staff will be around to help you. You can also contact the competition organizers via email (Diogo – dpc@inesctec.pt).

INSTRUCTIONS AND USEFUL INFORMATIONS – WORKING WITH JUPYTER

1. In the email you received you should find an IP address and a password.
2. Open a web browser and type that IP in the address bar. You should be directed to a web page like this:

3. Log in. You will see the following screen, with:



- baseline1 and baseline2: Two directories containing the source code for the two baseline solutions that have been presented to you in the Project Presentation session. Feel free to use these baselines as a starting point for your final solution.
- utils: A directory containing some auxiliary source code that you may find useful.

- test.ipynb: This is the Jupyter notebook where you **must** implement the inference step, generating your predictions. You **should not** train your model here. Since this is the **only script** that will be run by the competition organizers to generate your predictions and determine your score in the competition, you should make sure that this script runs end-to-end without any issues (e.g. syntax errors, missing dependencies, etc.).
- train.ipynb: You may implement your training routine in this notebook (or somewhere else, if you prefer). You may also create further notebooks for training, if you want. Please be aware that the code in this file and the code in any other file that you may create will not be run when generating your test set predictions (unless you import it in "test.ipynb").

CONNECTING VIA SSH

Only needed if you want to install a missing Python package, for instance. However, please take into consideration that you have limited privileges (you cannot "sudo"!).

1. Again, you should use the IP and the password you received in your email, which are the same that you use to access your Jupyter notebook.
2. Assuming the IP you received is "35.227.45.39", open a terminal window and type: ssh visum@35.227.45.39
3. You will be prompted to type your password. Type it.
4. Now you are logged into your machine. If you want to install a package, you should use pip3. To install Seaborn, for instance, type: pip3 install seaborn