Technical Test - AI Engineer

Welcome to the technical test for the *AI Engineer* position at Venturas Ltd. We appreciate your interest in our company and are excited to see what you can do! This test will help us assess your technical skills and suitability for the position. Good luck!

Task

Build a Deep Learning based image classifier that accurately classifies product brands into their respective categories.

Data

All product data are located in the `dataset` folder. The dataset is already divided into the train-validation-test set.

Coding Instruction

1. Please use a Jupyter Notebook to write your code. Ensure that your notebook **cell outputs are visible** when submitting the file to us. We will appreciate it if you write well-documented code which is easier to read and maintains industry standards.
2. Train, validate, and test your model using the train-validation-test set, ensuring that there is no data leakage.
3. Please feel free to use any libraries or frameworks to read, load, or process your dataset. However, we kindly request you to use TensorFlow, Keras or PyTorch for the model-building part. You can build your own custom model or fine-tune pre-trained models. The choice is yours.
4. At the end of your Jupyter Notebook, you may want to consider mentioning some additional techniques (explain each technique in 2-3 sentences) that were **not implemented** in the code due to time limitations but have the potential to enhance the performance of the model.

Submission

1. When creating the program on your local machine, please include a `requirements.txt` file containing all the necessary dependencies to run your Jupyter Notebook. Then, push the Jupyter Notebook with the `requirements.txt` file to a **public** GitHub/GitLab repository, and email us the repository link. Note that there is no need to commit the dataset in git.
2. If you use Google Colab or Kaggle for coding, please send us a link to your notebook. Ensure that your notebook is **publicly accessible** and **cell outputs are visible**.