The compressed file consists of:

- G&D is a Jupyter notebook with a small exploration, generation of the table in the PostgreSQL database, and a brief test of algorithmic models.
- .py files with the requested scripts.
- Dockerfile + requirements.txt, are the files used to generate the Docker image.

The Docker image can be found in this repository.

Considerations:

Due to time constraints, only a few algorithms and combinations of hyperparameters were tested, so the model's results are not very accurate. It should also be noted that the database had few records for the algorithm to produce better results. The metrics and description of the model are saved inside the container, although it can be uploaded elsewhere since if it is printed on the screen, it would not be stored anywhere. An easy way to access the file is with the command: *docker cp container_name:\app\model_desc.txt C:\path\destination.*

The scoring script takes a sample from the same database and saves it in a new table. Ideally, there should be a primary key for each record to be able to assign the prediction either in a new table only of predictions or in the original table adding the column.

The final performance report is not available because, if it were a real case, those data would not be available yet. However, if it were a test with testing tables and their actual charges, the performance could be reported by importing the rmse library from scikit-learn, using it to calculate the predicted versus the actual, and exporting it to a file and/or printing it on the screen.