

	Related Documents (folder/file_name)	Note
Problem description	<ul style="list-style-type: none"> -Problem description: /README.md -Using the solution: /documentation/using_xxx.pdf files -See also the /notebooks/nb4_best_model /local_service/local-test.ipynb /web_service/cloud-test.ipynb 	
EDA	<ul style="list-style-type: none"> /notebooks/nb1_eda.ipynb/ /notebooks/nb2_feature.ipynb 	There isn't missing value since the dataset is is a synthetic one as described in README.md
Model training	/notebooks/nb3_modeling	<ul style="list-style-type: none"> -7 models are trained - Performance of each model assessed with RMSE and r2_score - Hyperparameter tuning of each model are tuned using GridSearchCV in which 10-fold validation is applied - Since GridSearchCV doesn't work with MultiOutputRegressor, parameter tuning of XGBoost is conducted with a simple function
Exporting notebook to script	<ul style="list-style-type: none"> /notebooks/nb4_bestmodel.ipynb /local_service/train.py 	
Model deployment	<ul style="list-style-type: none"> /local_service/predict.py /local_service/predict-test.py /local_service/predict-test.ipynb 	
Dependency and enviroment management	<ul style="list-style-type: none"> /Pipfile /Pipfile.lock /documentation/Using_Pipfile_and_Dockerfile.pdf 	<ul style="list-style-type: none"> -Pipenv is used. -It's usage is defined in: /documentation/Using_Pipfile_and_Dockerfile.pdf
Containerization	/local_service/Dockerfile	<ul style="list-style-type: none"> -It's usage is defined in: /documentation/Using_Pipfile_and_Dockerfile.pdf
Cloud deployment	<ul style="list-style-type: none"> /web_service/flask_app.py /web_service/cloud-test.ipynb /web_service/cloud-test.py 	<ul style="list-style-type: none"> -The app is deployed to pythonanywhere.com and served to public. -How to reach it is explaind in: /documentation/Using_web_service A video is not recorded since the service is already up and running

