Solution Sheet

1. ## Which model have you used for probability prediction? Explain your model.

I used randomforest model to train the data. Preprocessed data with filling missing values (mean in case of numeric, most frequent in case of categorical). then compared 8 different models(xgb.XGBRegressor(), AdaBoostRegressor(), GradientBoostingRegressor(), RandomForestRegressor(), LinearRegression(), Lasso(), Ridge(), SVR()
) and picked the one with the best cross validation score which was randomforest. parameters were automatically optimized by the sklearn library.

2. ## Which model have you used for Diuresis Time series prediction? Explain your model.

for time series prediction I used Recurrent neural Network with following structure

lstm(64)->dropout(.15)->lstm(32)->lstm(32)->dense(1)

i used the first 6 days data to train the model to predict 7th day output.