

**Exercise 1:**

Make yourself familiar with the [Titanic kaggle challenge](<https://www.kaggle.com/c/titanic>).

Based on everything you learned in the last few days, make your own submission to kaggle for the Titanic survival challenge.

- a) Try out different classification models you learned during the course (or maybe even something new?)
- b) Improve the prediction by creating new features (feature engineering)
- c) Tune your parameters using random search (see: <https://mlr.mlr-org.com/articles/tutorial/tune.html>)
- d) How big are the differences between your own performance estimate and the estimate of the public leaderboard?

**Hint:** Use the `titanic` package to get directly access to the data. Use `titanic::titanic_train` for training and `titanic::titanic_test` for your final prediction.