2) Model selection for regression

1) Please see the notebook in the next section
2) Please see the notebook in the next section
3) Please see the notebook in the next section
4) In some cases the matrix (`||y - Xw||^2_2 + alpha * ||w||^2_2`) for minimization is singular and not invertible; depending on the different sets for train and validation set this can be different. In order to fix this, we should change the alpha to make the above matrix nonsingular(the determinant of the matrix should not be zero).

3) Model selection for classification

1) Please see the notebook in the last section.
   No, when data is unbalanced the accuracy is not a good measure.
2) Please see the notebook in the last section