The first homework contains two notebooks: (1) a project that gets you familiar with the data science cycle and (2) a project that gets you familiar with linear regression. Please complete the missing code in (1) and go through every description in (2). Please save your notebooks into pdf files and submit to ccle. Note notebook 2 provides solution to you immediately after each empty block.

Bonus question:

1. For linear regression notebook, add a cell to run polynomial regression with max degree 2 for the toy dataset, i.e., . Note, you do not need to implement polynomial regression, but just change your dataset.
2. For linear regression notebook, implement another gradient descent-based function to estimate and .