(1) Read some background materials in statistics and probability. Follow the slides provided but go deeper on each topic by consulting materials from the Internet.

(2) Read about vector space and matrix algebra.

(3) R Exercises:

Basic programming: Please go through the first three of the 5 exercises in Programming Exercises for R (see attached) and code in your R Studio. Try not looking at the answers first.

Sub-setting operation - Read the loan data excel file (uploaded in the course material section) into a frame and then export only those rows with age greater than 30 and unemployed to another sheet of the same excel file.

(4) Distribution:

Try at least 4 out of 15 distributions (Gaussian, Exponential, Poisson, Binomial) listed in slide 30 from the presentation slides with your own generated data or data from the web (in R or Excel).

For each distribution please mention some use cases in the real world. And please keep all in one file.