

1. For your individual final project, think about the following questions and write down your answers.

- a) What is the topic about FinTech you would like to work out? Briefly explain your problem.
- b) Write down your motivations and explain why this topic is important?
- c) Provide at least one related work (paper or book) about the topic.
- d) Formulate your problem as clear as possible.
- e) Find the data you would like to use. Write down the source of your data, summarize the data set information and attribution information. Provide the exploratory data analysis (EDA) for your data.

2. Please download the [adult dataset](#) and practice how to conduct exploratory data analysis.

1. Show the summary statistics of all numerical variables.
2. Identify categorical and continuous variables.
3. For each categorical variable, print frequency and relative frequency tables.
4. Draw bar plots for each categorical variable.
5. For each continuous variable, draw histograms and distribution plots.
6. Draw pairwise scatterplots for continuous variables. Explain any discernable patterns?
7. Draw a heatmap for the correlations among all variables. What do you observe?