You can analyse in jupyter or R, then try to get your conclusion. Interviewer will ask each question in the second round. No need to answer the question on paper.

1. Now we are running a business that sells houses. We have a very high customer cost to make a deal. Now we have 10 user data in our system. Should we get a customer by the information below?

Age	Gender	Annual income	Married
40	Female	310k	FALSE

(buyer.csv)

User	Age	Gender	Annual income	Married	Buy
1	27	Male	150k	FALSE	FALSE
2	47	Female	300k	TRUE	TRUE
3	32	Male	120k	FALSE	FALSE
4	24	Male	450k	FALSE	TRUE
5	45	Male	300k	TRUE	FALSE
6	56	Male	320k	TRUE	TRUE
7	31	Male	150k	FALSE	FALSE
8	23	Female	300k	TRUE	FALSE
9	42	Male	230k	FALSE	FALSE
10	32	Female	420k	FALSE	TRUE

2. This is a summary table from 2018-09-03 to 2018-09-09. Margin is Gross_amount divided by Sales_Amount. Model A and B are machine learning sales models. Manager will assign the events to the model (Event as an input). After a seven-day test, which model would you choose, Model A or Model B ? Why do you make the decision ? (model_compare.csv)

Hint : Margin = Gross_amount / Sales_Amount

Date	By	Margin%	Event	Sales_Amount	Gross_amount
2018-09-03	Model A	2.81%	74	2448	68.8
2018-09-04	Model A	1.11%	92	3232	35.72
2018-09-05	Model A	1.86%	120	3948	73.29
2018-09-06	Model A	2.20%	63	2207	48.45
2018-09-07	Model A	1.61%	64	2155	34.68
2018-09-08	Model A	0.64%	265	8484	54.29
2018-09-09	Model A	0.28%	241	7857	22.37
2018-09-03	Model B	3.31%	29	863	28.54
2018-09-04	Model B	1.36%	25	800	10.88
2018-09-05	Model B	1.27%	29	986	12.56
2018-09-06	Model B	1.14%	19	593	6.79
2018-09-07	Model B	2.23%	22	739	16.44
2018-09-08	Model B	0.55%	42	1348	7.37
2018-09-09	Model B	0.13%	53	1768	2.3

Online Game analysis

3. This is an online game sales information. How would you predict the sale amount of 500th day and 1000th day ? (sale_amount.csv)

Day	Sale amount (million)
1	1.08

21	0.90
41	0.72
61	0.58
81	0.48
101	0.42
121	0.37
141	0.33
161	0.26
181	0.24
201	0.22
221	0.11