**Hello everyone. Today we are going to introduce our final project. Our research question is Predictive Analysis in Identifying Frequent Opioid Prescriber. To start with, I’m going to introduce what opioid is and why we’re interested in this topic.**

**P1** Opioid is a kind of drug that is derived from the opium poppy. It can be prescribed by doctors to relieve severe pain, but it is highly addictive and can have serious side effects while used. While being an effective prescribed medication for clinical uses, in recent years, an increasing number of people in the United States have been suffering from the side effects or the withdrawal effects caused by the misuse or overdose of opioid drugs, and an amount of them die because of the overdose of opioids.

**P2** One source of the increasing misuse of opioids is that there are a certain amount of doctors who became the ‘pill whale’ who are over-prescribing opioids. As the drug is highly addictive, the doctors could thus benefit themselves more by prescribing more drugs. In order to reduce overuse, the first step would be locating the doctors who are frequently prescribing opioids. Locating these doctors would allow experts to carry out a more detailed and more focused analysis, so we could eventually find out which doctors are over-prescribing. Thus, the main goal of our project is to finish this ‘first step’ – identify the frequent opioids prescribers.

**P3** In this project, we’re trying to build a systematic method to find out whether a doctor would be considered as “frequently prescribing opioid drugs”, based on basic information about this doctor. To build this predictive model, we found a dataset of 25,000 unique licensed medical professionals in the United States including their basic information of them as well as an indicator of whether these professionals are frequent opioid prescribers. Here, it is important to emphasize again, that in our project, saying a doctor is a “frequent prescriber” by no means indicates that they’re over-prescribing. The phrase “frequent prescriber” is simply a description of their prescribing status. We hope our model can use the power of machine learning to filter out the frequent opioid prescribers from millions of registered medical professionals so that further work can be done to identify those over-prescribers, and thus reduce the death caused by the overdose of opioids.

Next, we will have Erjia introduce our dataset in a more detailed way.