What we are heading next is our system called ShowMeData, our group members including Li Xinhao, Ding Jianqiao, Feng Yunjia, and the last one is me.

So the main content for the slide is four parts.

The corona virus now is becoming a global public concern. Under the influence of the epidemic, people all over the world are eager to understand the current situation and also specific figures, which need a platform that could visually display all the data vividly, and that’s what we were doing.

It is clearly that the need of this kind of software system is noteworthy, and compare with similar products like Tencent and Baidu, our system has special features that we can not only display the statistics, but also integrate multiple functional modules such as propagation simulation, rumors and news search, prevention knowledge, and etc.

Let’s have a brief quick view of our website, and we will concentrate the details in later demonstration.

Generally, our system is based on the website, which can provide the visualization of history and current epidemic statistics. Additionally, it also offers real-time data and news information by using the credible network interface, plus we use database to store the data. Moreover, we have a rolling display block for recent news, and reliable rumor refutation search engine and a real-time heat keywords analysis section.

In the process of implementing the whole system, we used various state of art technics, for instance: Vue, E-Charts, Webpack, Datav, AntDesign, Flask, MySQL, Web Crawlers.

Let me briefly introduce that rudimentary structure of the system. First, we applied Vue-Cli to generate the skeleton codes, which also integrate Webpack to corporate all the environments and developing modules for customers building the demo, through a very functional package manager named npm in the node.js environment. After that, we deploy the whole static website on the local server called dev server, basically in the ground of Vue and its plug-ins. Finally, we run the scripts in python interpreter, implemented by the use of Flask and also SQLAlchemy to process the post or get requests from our website, then link the relational database MySQL to store the data, in order to provide the functionality of search and filter.

At last, we also put the robust of the code into consideration, we listed a future plan to carry on building the platform. First, because of our structure is basing on Vue + Flask, it is very convenient to deploy it online on a cloud server like Ali or Amazon. Second, we could also working on diversifying the platforms like make applications for Android, IOS or as WeChat light programme. Thirdly, we are supposed to restructure all the element tree, make it more clear with feasible arrangement. Lastly, deeper data-analysis module is also desirable which probably involve a further research on specific area called data-mining.

For our front-page, it is mainly displaying the real-time data. And it is noticeable that every page has the exactly same header, which provide today’s new cases of COVID-19 and total numbers for both China and aboard. While the left section is a carousal chart with different countries’ infections, basing on Datav, a component library in Vue community. For the next part, it indicates the specific statistic in each province in China, and rank them by colors, you could click each one to get the details. On its right side, lies the top list areas in our country, it can show the percentage and exact number. It is almost the same function that the world map has as the China map does. For the last part, there is a column to show the real-time news that pressed coup of hours ago, with hyperlink you could redirect to the news page. And the news source is from a Sina web service interface.

Next, we head in to the second page, in this page, we implemented a search bar based on Ant-Design component library. After user typing in the keywords, it will print out the result with related title and summary of the news, also including the link. For the details, this module take the back-end Flask programme to process the data, and searching for the pre-stored over 7000 pieces of news in MySQL. To be mentioned, the data stem from a repository in Github. For the next part in the right is a real-time top-list for the heat keywords, the style and design we used is a capsule bar chart in Datav, whilst the information come from the web crawlers that we used to capture network packets in Baidu indicator.

After that, the next page is used to display the historical data, provided with the line charts which contain both China and the whole world, users could adjust the figure according to the legend, such as infected, cured and death toll, you could also scale up and down to focus on the details, and these two components are build by a js tools library called E-Charts, whereas the right hand side is a timeline record the big events during the epidemic burst, and this one based on Ant-Design which I had already mentioned before.

Then, for the next page, there is a huge area for showing our pandemic or virus simulation, you could adjust some parameters over here like infectivity, virus latency period, fatality rate and so on. We tend to make it in a direct way for citizens to figure out what exactly the process of the dissemination is, by the way, this component is also based on E-Chart. While the mean time, the column on its right, we have a rumor search bar which has identical feature as the news one, but instead, we could search rumors for sure, with our database for over 300 rumors information.

For the last page, we finally get the part of the carousel chart, mainly focus on the knowledge of preventing people from the corona virus, and on the right, is a dynamic diagram with the list of Top-6 dangerous job in current situation.

And that’s basically all the tour for our demonstration on the website.