**1. Team Members:** Yanlin Zhou and Xuan Wu

**2. Target Domain:** In this Project, we will implement a database with COVID-19 data, like Country, Date, Daily Cases, Daily Death Cases, and so on. Our final goal is to implement an interactive interface to show users the detailed Covid-19 related data and some advanced graphic interface to show data more vividly.

**6. Plan for Loading Database with Values:**

We will use two levels of data. One is in the level of Global Countries. It is from European Center for Disease Prevention and Control and can be obtained by the following URL:

<https://www.ecdc.europa.eu/en/publications-data/download-todays-data-geographic-distribution-covid-19-cases-worldwide>

Another is in the level of States (the US). It is from COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University and can be obtained by the following URL:

<https://github.com/CSSEGISandData/COVID-19>

For the Global data, we can directly use it. For the US data, since it is with cumulative cases, we will need preprocess the dataset by Python. Both raw datasets are in the format of CSV. Since the datasets are very large, we can use some online tool to convert CSV to SQL insert statements and load into our database.

**7. Very briefly describe the form/type of output or result you plan to generate or any special user interface issues (e.g. views) that you plan to implement.**

Our final goal is to implement an interactive interface to show users the detailed Covid-19 related data both in global level and the US level. Some general data will be displayed on the web. Users can also use it to query on some specific data from the database, like the new cases on a specific day in a country, the total fatality rate in a specific continent, the country having the most quickly increasing rate in the previous week…

Also, we may want to implement an advanced graphic interface to show data more vividly, like a US map which is connected with detailed data. User can get some States’ specific data by clicking on the corresponding region on the map.

**8. Advanced Topics:**

* Major: We want to implement a special GUI. In particular, we want to create an U.S. COVID-19 cases map. According to the number of cumulative cases/new cases/current cases/death, states in the map will be colored with different colors. One can choose what kind of data the map should show in the GUI. Moreover, we expect the map can be clicked by states. A click will let the GUI show data of that state.
* Minor: We want to implement some advanced SQL topic, for example, trigger. We may want to define an attribute called “Cumulative Cases” of a state. When a new daily case record is inserted into the database, “trigger” will automatically update the cumulative cases of that state.