Hi, this is team from Jialai Wu, Qian Yu and Minghui Qiu. Our INFO 5100 final project is City Typhoon Safety System. The presentation will be taken into four parts, introduction, diagrams, features, and application demo. First, let’s talk about the meaning of the system. As we all know, Typhoon causes terrible life and financial loss. A lot of people lose their homes and family members, so do other disaster weather conditions like Volcanic eruptions, earthquakes, etc. Intime rescue and information explosion can help people react faster, so we want to create this system to save more lives, help more people, and reduce risks.

When making the class diagram, we set ecosystem as the highest hierarchy, which contains systems of News, Insurance, Hospital, Rescue, Supply, and Resident as enterprises systems. Each enterprise contains sub-system organization, like NewsCenter is with EmergencyMessage, TV and Radio channel, Insurance with car and house insurance organization, hospital contains the particular hospital, rescue system have 911 rescue team, Supply system is with water, electricity and food supply organization, the resident system will hold all residents. Each enterprise and organization have its users from Adminrole of system, Organizationadminrole of the organization like a manager, and staff to complete the assigned work request.

It can be seen clearly in the sequence diagram that the whole ecosystem takes charge of all the enterprises. Each organization runs in a unique role. We set multiple cross-enterprise interactions in the system, like residents receiving news and emergency messages, asking for emergency rescue, requesting insurance service, and asking for supply maintain. A rescue team staff can send cure requests to the hospital when finding resident casualties, hospital, rescue, and insurance system can send the most updated information to the news center. The News center will pick the information and publish that news rolling on TV so that residents and other departments can get aware of the general situation and detailed data on the whole picture.

Now are the features. First, the system realizes Circle Control. By setting different systems, it meets the requirement for a city to manage from resident safety to financial loss analysis, which provides a solution to better-facing typhoons or other severe weather situations. Second, it realizes Multi Interaction by setting a lot of interaction between different systems, as we introduced before. The third feature is Location Visualization. With Geo map embed, users can set the location to create work requests, and residents can glance at food supply distribution on the map. Last but not least, Data Analysis, the insurance system make charts on loss amount and are able to send reports message to news center after they make necessary adjustment, so that TV can play as a platform to reflect the whole situation. With these functions, our system can do well in Typhoon in time rescue and city reconstruction. We believe that after further improvement, this solution can be applied to other disaster-weather emergency systems on the scale of states and even countries.

Now, let’s come to the application demo.