

Sri Lanka Institute of Information Technology
Faculty of Computing
BSc (Hons) in IT specializing Data Science

IT3031 - Database Systems and Data driven Applications

Assignment 1

Weightage – 20%

Due date: 2020/03/30

Coronavirus disease (COVID-19) is an infectious disease caused by a new virus.

The disease causes respiratory illness (like the flu) with symptoms such as a cough, fever, and in more severe cases, difficulty breathing. You can protect yourself by washing your hands frequently, avoiding touching your face, and avoiding close contact (1 meter or 3 feet) with people who are unwell.

Coronavirus disease spreads primarily through contact with an infected person when they cough or sneeze. It also spreads when a person touches a surface or object that has the virus on it, then touches their eyes, nose, or mouth.

The spread of this new coronavirus is being monitored by the Centers for Disease Control (CDC), the World Health Organization and health organizations like Johns Hopkins across the globe.

Diagnosis may be difficult with only a physical exam because mild cases of COVID-19 may appear similar to the flu or a bad cold. A laboratory test can confirm the diagnosis.

As of now, there is not a specific treatment for the virus. People who become sick from COVID-19 should be treated with supportive measures: those that relieve symptoms. For severe cases, there may be additional options for treatment, including research drugs and therapeutics.

As of Mar. 22, 2020, 13,592 deaths have been attributed to COVID-19. However, 94,175 people have recovered from the illness.

In this moment, decision makers of every country are thinking about the best what they could do for their community. As computing professionals, it is your responsibility to support decision makers. With this in mind, think about at least FIVE reports useful to country leaders and develop a database which is capable of generating your reports. In order to produce your reports, use shared files which consist of time series data of number of confirmed patients, number of deaths and also number of patients strong enough to survive.

Deliverables

1. Describe the five reports planning for decision makers.
2. Design EER diagram for the database.
3. Map your design into Object relational data model.
4. Submit working Oracle script for your database schema.
5. Load data to the new oracle database. Explain how you did it.
6. Develop at least 3 member methods useful to produce your reports.
7. Write OR-SQL statement to produce 5 reports from your own database.
8. Submit a detail report presenting your solution and way you did it above questions. (include screen prints when necessary)