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COVID'19 Management System

Project Statement:

The outbreak of Coronavirus in the world has big implications for the world. The closure of higher education institutions as well as the broader measures undertaken in many countries to restrict mobility of citizens and increase social distancing hampers the regular implementation of most of the ongoing or planned activities. The Commission and the Agency are acutely aware of the difficulties faced by project beneficiaries in this respect. Our foremost concern, that we know you share, is the safety and protection of all the participants. This note aims to provide clarifications and general recommendations in order to support consortia in managing these exceptional circumstances.

To manage all the relevant areas and features, you are required to design database schema and implement IMS for COVID'19 outbreak. Some general features against COVID'19 Management System are mentioned below. You all are required to add as much features (minor/major or core/sub features) as you can. Project with maximum possible features, better design (database + front-end) and its implementation will get maximum marks during each step of evaluation.

Core Features:

Some major and core features of COVID'19 Management System are as follows:

1. Isolation wards (and its complete management)
2. Quarantine wards (and its complete management)
3. Symptoms, Preventing Measure and Treatment of Covid'19
4. Patient Record (add, edit, delete recovered/deaths/active cases)
5. Recommendations of outbreak in your region(s)
6. Percentage of COVID outbreak in your region/country
7. Emergency Call numbers/centers available in your city/region

Suggested Features (Optional):

A group may implement these features as optional to get some bonus as follows.

1. Visualization of patient data on map through queries (reference: link)
2. Data insertion of patient location using GUI tool. (Reference: link)
3. Calculation of initial trends as patient symptoms. (Reference: link)
4. Generating statistical reports on timely basis using Sql queries. (from date to date)
5. Professional effort in concern of front end (30%) and backend (70%) efforts.

Basic & Advanced SQL queries (Mandatory):

A group will be evaluated on following Sql queries which will be evaluated as compulsory part of project.

Note: (This will trace an obvious understanding of DML, DDL and DCL)

1. Basic use SQL select, where, order by clause.(Evaluation bucket criteria: 30%)
2. Use of having clause with multivalued functions.(Evaluation bucket criteria: 05%)
3. Use of Join to show various reports. (Evaluation bucket criteria: 15%)
4. Implementation of Views, Indexes, triggers, and SQL attributed function.(Evaluation bucket criteria: 10% each)

5. Hieratical implementation of SQL users through DCL (Evaluation bucket criteria: 10%)

Guidelines:

- You are required to make a group of three members.
- All group members have their own choice to choose front end development **(Desktop App or Web App)** and database **(SQL or Oracle)**.
- You will submit your project design procedure in multiple deliverables.
  - Deliverable 1: Project Proposal
  - Deliverable 2: ERD Design
  - Deliverable 3:
    - Normalization steps with detailed information of each step
    - EERD Design (after applying all normalization concepts)
- You are required to submit project proposal using given format.
- Deadline for project proposal (Deliverable 1) is 11-04-2020 till 8:00 PM sharp on **Google classroom**
- Deadline for remaining deliverables will be announced later.
- Plagiarism in any deliverable will lead to F grade lab.