Covid-19 Testing Centre Management

Subject: System Programming
ID:202012013

1. **Goal Of the proposed System:**
   - This System is made for one particular centre performing the tasks needed to carry out the testing process of huge amount of people came at one point of time.
   - The main goal of this system is to simulate the process of testing and treatment of the people by maintaining the records which are needed to be stored and retrieved throughout the whole process.
   - Different mechanisms are used depending on the requirement of the currently running phase.

2. **Requirements:**
   - This system mainly works for one test centre which is designated to perform only Covid-19 test.
   - Registration of all those people who have come for test will be done as the first task of the system.
   - This system then performs the testing phase where the records are maintained for all people who are tested positive and tested negative as well.
   - Having 5 teams at the centre for testing, process of testing people is performed concurrently.
   - Treatment of the people based on their test results is being performed by accessing stored data of available treatment-kits, beds, Ventilators etc.
   - Main department will not be included in the treatment phase unless some serious patient is being encountered, if this situation happens, then main process will be suspended till that patient gets the proper treatment with all the resources needed.

- This System also updates or creates needed records ongoing all the different phases.
- At the end of the day, all the detailed Information is displayed from the stored records.

3. **Assumptions:**
   - List containing the personal information of all the people come for testing is provided initially to the program.
   - Patient with CT value between 20 to 35 should be home Quarantined and should be provided the medicine-kits available at the centre.
   - Patients with CT value between 10 to 25 should be hospitalized in general-ward whereas, patient with CT value less than 10, will get the ICU beds instantly.
   - ICU beds having ventilator will be provided to those patients who are having low oxygen issues found.
   - All the records are being maintained by file system like available Kits at the centre, available beds in the hospital, remaining ICU beds and ventilators etc.