**1-system identification**

This phase is used to recognize the need for a new system. Everything performed in future depends on this definition and identification.

**Need for the system we are developing:**

At the beginning of our study of the project, we found that the current manual medical system is difficult for the patient these days, so we decided to try to make it easier for patients and doctors as well by making an electronic system that would be an intermediary between them and also between them and the hospital. **We found the following:**

- There are many medical systems, but we did not find one of them that contains all the needs of the three categories patients, doctors and the hospital.

- The patient has to go to the hospital to book his doctor, and he finds it difficult because he sits and waits for a lot of time.

- The patient is forced to go to the hospital to book his doctor, and he finds it difficult because he sits and waits for a lot of time and also book the work of x-rays and medical tests and also receive them.

- We also found that the proportion of patients with pneumonia affects about 15% of children under the age of five around the world, according to the World Health Organization.

<https://www.who.int/ar/news-room/fact-sheets/detail/pneumonia>

- Under the spread of the Corona virus, the patient, if he suspects that he has the disease, tends to make Lung x-ray, where pneumonia appears.

- We found that these days, the state is working to reduce the circulation of currencies and dealing with them and towards electronic payment.

- We also found it difficult to organize between doctor's and patients' appointments.

- We also found that the doctor does not see the patient’s medical history, so the doctor is forced to ask each patient about his medical history and his details, but the medical history is not recorded in order to be preserved if the same patient goes again in follow-up.

- We also found administrative and accounting problems in hospitals.

**Affected Group of people:**

-Now we can say that the most affected by the current system in hospitals are patients who find it difficult to seek medical advice, so they turn to search via the Internet. In a study conducted, it proved that websites and applications for examining symptoms are accurate about 34% of the time, while doctors, when given the same information, diagnosing the condition correctly 72% of the timeز

- Doctors also, because their task is made difficult in the current system because there are no ways to facilitate the matter of meeting patients, for example, or knowing their medical history in asking each patient. Those related to the health system in Egypt, so by making it easier for them, they are more attracted to work in Egypt.

**Objectives:**

Develop a system that contains the following:

1. Pneumonia detection.
2. Doctor reservation.
3. X-rays and medical tests reservation and receive results.
4. Make Full accounting system.
5. Make an electronic payment system.
6. Make patient profile.
7. Make dashboard for doctors and hospital workers.