**Project Name:** Drug Development and Research Management System

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**Domain:** Healthcare

**Description:**

In today’s world there are lots of diseases being discovered daily and it demands extensive research to be carried out in order to produce drugs that can tackle them. The research work handles the task of mixing compounds in various proportions and conduct study on the target object. This study on target object may incur various side effects which need to be documented and acted upon accordingly. The healthcare Industry faces complex endeavour in the research of drugs to finally make a medicine. The study from the compound state to the final medicine takes a lot of effort and capital. There should be a system to track the effects of compounds used in medicines across multiple studies to find an intelligent design facilitating the researcher to understand the drug much better in the scope of the disease as well as any other effects it can render.

**Scope:**

Through this project we wish to achieve the following:

1. Track the pharmaceutical compounds and their effects on the body as a whole and note the interactions it can cause with other compounds and health conditions.
2. Creation of a repository for the studies conducted for the creation of medicine for a disease and a facility to update the drug based on study.
3. A business solution to reduce the price of the medicine for patients by finding the lowest cost compounds used to create the medicine.
4. Patients taking the medicine could give feedback, which can be recorded in the study and can be used to quantify the effectiveness of the drug, point any scope for improvement.
5. A collaborative platform for researchers across the spectrum for sharing and improving their research.

**Roles/Users:**

The following group of users will benefit the most from this system:

1. **Researchers:** An automated system/application will help to better analyse the compounds required for the target disease which will be more efficient in terms of the overall cost of production and their incurring side effects.
2. **Patients:** The medicine administered by them will be more economical and will have fewer or no side effects.
3. **Pharmaceutical companies:** They will be able to create high quality drugs at reduced cost.

**Conclusion:**

By implementing this system, we can have an effective way of production of drugs and an automated system that provides better communication between the researchers, manufacturers, doctors and the patients to help tackle various diseases.