



# DAYANANDA SAGAR COLLEGE OF ENGINEERING

## Department of Computer Science & Engineering

### A BLOCKCHAIN-BASED HEALTH INFORMATION EXCHANGE WITH A PATIENT-CENTRIC APPROACH



**Doctors** can add new patients by providing patient info. They can confirm or reject the appointments requested by patients.

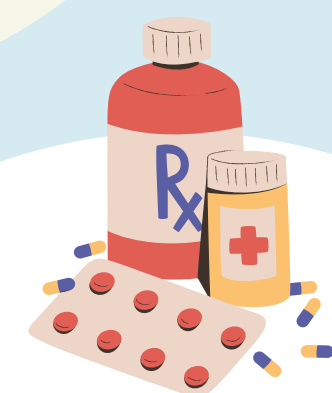
Doctors can also add new medical records after providing treatment.



**Patients** can view their own medical records. They can also grant or revoke *read* access to doctors.

Patients can request appointments to visit the doctors for treatment.

**Blockchain** empowers patients by giving them control over their own data. It is a secure digital ledger.



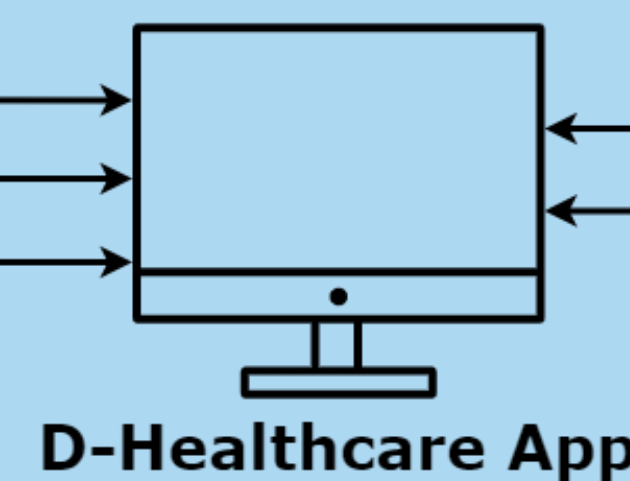
**Pharmacists** can view patient prescriptions, and dispense medicines to the patients.



Manage Access  
View Records  
Add Records  
Add Patients  
View Prescriptions  
Dispense Medicines



Add Doctors  
Add Pharmacists



D-Healthcare App

Store medical records

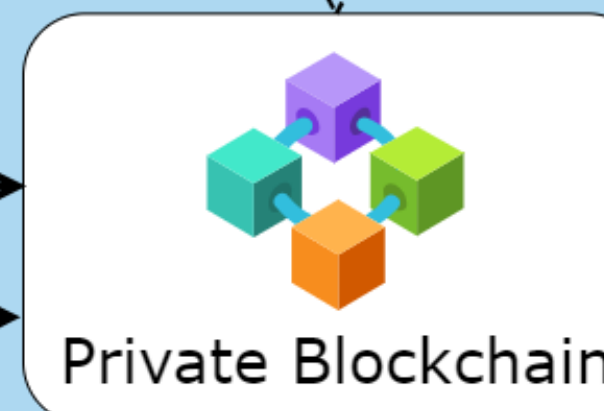
Store medical reports or files



Distributed Ledger



Smart Contracts

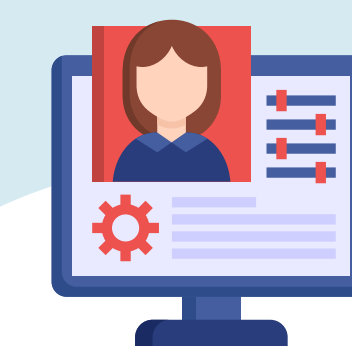


Private Blockchain



IPFS

**IPFS (InterPlanetary File System)** is used to store medical files and lab reports. This reduces the burden on the blockchain.



**Admin** is responsible for verifying and registering doctors and pharmacists into the system.