ReadME Assignment - 3 (CS540)

Name - Bajrang lal Entry no - 2020CSB1081

Here are the following address we are using -

Owner address - 0x937A2493810FB7bBDB0afD96c7B47693680F11d4

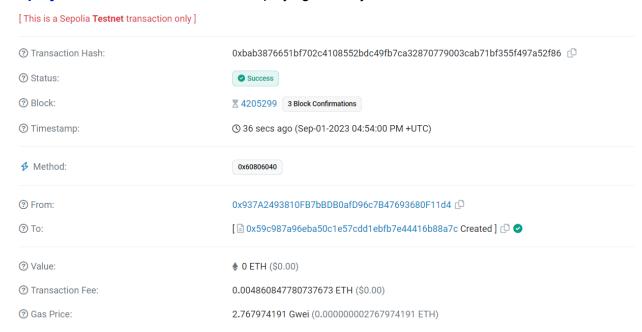
Patient Address - 0x260368A06edCb404170c05269D74F651185FBd84

Doctor Address - 0x4690BB1aB21FE108C6528D23554c5B164E531D82

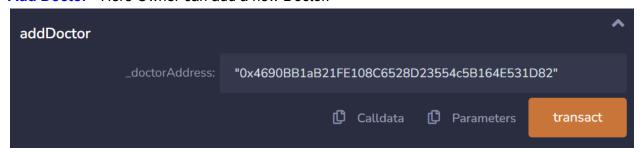
Here is how I implemented the complete program -

- 1. Owner can do the following things -
 - Add Doctor. addDoctor method for this.
 - Add Patient. addPatient method for this.
- 2. Patient Can do the following things -
 - Search for a Doctor.
 - Give permission to a doctor to view his medical records.
- 3. Doctor can do the following things -
 - Doctor can access a patient's data, if the patient has given permission to the doctor.
- 4. One more functionality added where we can check that a particular doctor has the permission to view the patient data or not.
- 5. We can also access all doctors.

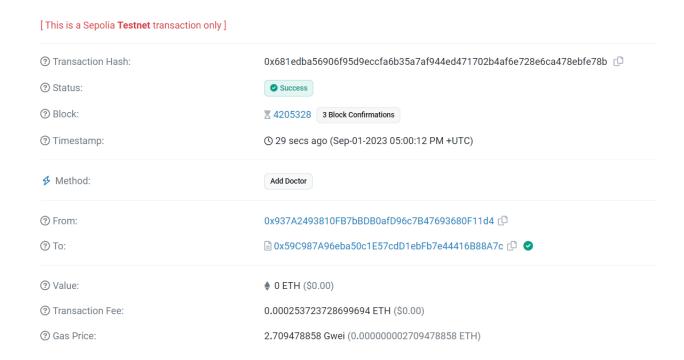
Deploy - Here is the Transaction for deploying the Project.



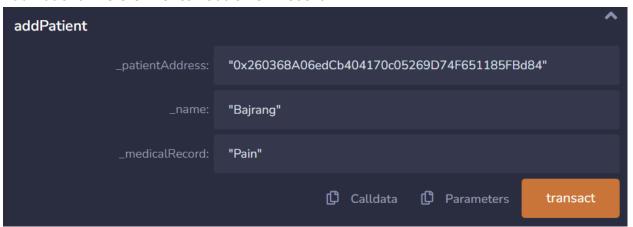
Add Doctor - Here Owner can add a new Doctor.



Once Owner enter doctorAddress and then click on "transact", a doctor will be added to the contract, and here is transaction for that -

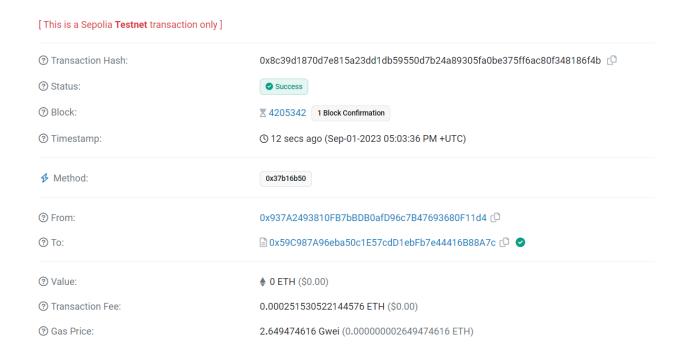


Add Patient - Here Owner can add a new Patient.



Here the Owner enters the PatientAddress, Name, and MedicalRecord. Once he clicks on "transact", a new patient will be added.

Here is the transaction for that -

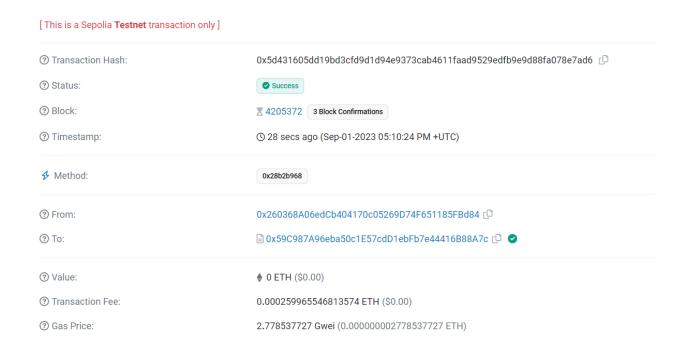


Give access to doctor - A Patient can give access to a Doctor to view his medical records, If a Patient has given access to doctor, then only he can view his medical record. Only Patient can give the access, Owner also can't give the permission to the doctor to view Patient data.



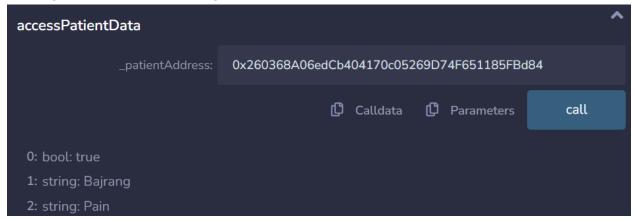
So, Patient will Enter the Address of the Doctor to whom he wants to give permission to view his medical record. And after that when Patient clicks on "transact", if at that address a doctor exits then he will get the permission to view the respective patient data.

Here is the Transaction for that -



accessPatientData - Now once a patient has given permission to the doctor then the doctor can access his data.

Here is the data that we added earlier, and as a doctor I am accessing this data, and it is showing correct output according to that.



doctors - A patient can search for a doctor, whether a particular doctor exists or not. As we have added earlier this doctor, so it is showing "true", that means this doctor exits. Patient just Enter the address of the doctor and he will get the result respectively.



doctorToPatients - Here we can check if a particular patient has given the permission to a doctor to view his medical record or not.

If the patient has given permission to the doctor then we will get true otherwise we will get false. First we Enter the address of the doctor, and then Enter the address of the patient, after this we call this function and we will get the result respectively.



getAllDoctors - When we call this function, we will get all the doctors added by the owner, as we have added only one doctor, so it is showing the address of that doctor.



Owner - Here is the address -

