**Blockchain Essential**

**All Codes (Smart contracts – Remix Ethereum)**

**1) LandDetails.sol (basic program)**

pragma solidity >=0.4.17 <0.7.0;

contract myLand{

string public owner;

string public value;

string public area;

string public location;

function myLand(string newOwner,string newValue,string newArea,string newLoaction) public{

owner = newOwner;

value = newValue;

area = newArea;

location = newLoaction;

}

function setDetails(string newOwner,string newValue,string newArea,string newLoaction) public{

owner = newOwner;

value = newValue;

area = newArea;

location = newLoaction;

}

function getDetails() public view returns(string,string,string,string){

return(owner,value,area,location);

}

}

**2) LandContract.sol (Sai sir - code)**

pragma solidity ^0.4.17 < 0.6.12;

contract LandRecord{

string public owner;

uint public value ;

string public location;

string public area;

string public legalId;

function LandRecord(string newOwner, uint newValue, string newLocation, string newArea, string newLegalId) public{

owner = newOwner;

value = newValue;

location = newLocation;

area = newArea;

legalId = newLegalId;

}

function setLandNewDetails(string newOwner, uint newValue) public{

owner = newOwner;

value = newValue;

}

function getLandCurrentDetails() public view returns(string,uint,string,string,string){

return(owner, value, location, area, legalId);

}

}

**Day 4 Project**

**3) ReportCard.sol**

pragma solidity >=0.4.17 <0.7.0;

contract ReportCard{

string public name;

string public rollNo;

string public batch;

uint public marathi;

uint public hindi;

uint public english;

uint public science;

string public status;

function ReportCard(string newName, string newRollNo, string newBatch, uint newMarathi, uint newHindi, uint newEnglish, uint newScience)public {

name = newName;

rollNo = newRollNo;

batch = newBatch;

//Enter the marks out of 100 for 4 subjects (i.e marathi, hindi, english, science)

marathi = newMarathi;

hindi = newHindi;

english = newEnglish;

science= newScience;

if(marathi >= 35 && hindi >= 35 && english >= 35 && science >= 35){

status = "Pass";

}

else{

status = "Fail";

}

}

function getDetails()public view returns(string,string,string,uint,uint,uint,uint,string) {

return(name, rollNo, batch, marathi, hindi, english, science, status);

}

}

**Exam Questions**

**4) EmployeeDetails.sol**

pragma solidity >=0.4.17 <0.7.0;

contract EmployeeDetails{

string public Name;

uint public Age;

string public Address;

string public Designation;

uint public MobileNo;

function EmployeeDetails(string newName, uint newAge, string newAddress, string newDesignation, uint newMobileNo) public{

Name = newName;

Age = newAge;

Address = newAddress;

Designation = newDesignation;

MobileNo = newMobileNo;

}

function setDetails(string newName, uint newAge, string newAddress, string newDesignation, uint newMobileNo) public{

Name = newName;

Age = newAge;

Address = newAddress;

Designation = newDesignation;

MobileNo = newMobileNo;

}

function getDetails() public view returns(string,uint,string,string,uint){

return(Name,Age,Address,Designation,MobileNo);

}

}

**5) TrainTicketsDetails.sol**

pragma solidity >=0.4.17 <0.7.0;

contract TrainTicketDetails{

string public TicketNo;

string public TicketHolderName;

string public SeatNo;

string public Source;

string public Destination;

uint public Fare;

function TrainTicketDetails(string newTicketNo, string newTicketHolderName, string newSeatNo, string newSource, string newDestination, uint newFare) public{

TicketNo = newTicketNo;

TicketHolderName = newTicketHolderName;

SeatNo = newSeatNo;

Source = newSource;

Destination = newDestination;

Fare = newFare;

}

function setDetails(string newTicketNo, string newTicketHolderName, string newSeatNo, string newSource, string newDestination, uint newFare) public{

TicketNo = newTicketNo;

TicketHolderName = newTicketHolderName;

SeatNo = newSeatNo;

Source = newSource;

Destination = newDestination;

Fare = newFare;

}

function getDetails() public view returns(string,string,string,string,string,uint){

return(TicketNo,TicketHolderName,SeatNo,Source,Destination,Fare);

}

}