Presidential Initiative for Artificial Intelligence and Computing (PIAIC)

https://www.piaic.org

Solidity Programming Assignment 1

Note: Check Rules end of the document

Create a contract to enroll Students in a Class. The contract must have the following features

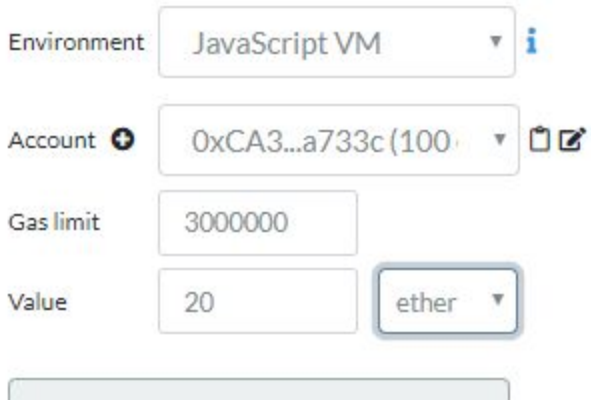
1. The contract should have an account as a Private address within the contract.
2. Students will transfer 2 Ether to enroll in the class.
3. Each student should have a valid Ethereum address
4. The contract will record the number of students enrolled in the class
5. The contract should show the amount collected from students.
6. Should Identify the Registered student has BS Degree or not

This assignment should use the following data type

1. Mapping for students record
2. Struct for single Student data
3. Address
4. Bool (for Degree property)
5. Enum (register for online or onsite and gender)
6. Uint
7. String or Bytes array

** msg.value is a special type of variable contains a value of Ether transfer in the transaction.

In the remix, at the time of running the transaction of the Payable method, you should fill the value field. Just as shown in the below image.



Please refer the below-given contract as a starting point.

```
pragma solidity ^0.5.0;

contract Address{
  address payable private myAddress = 0xaD335c3c503aBd738Af9a7690FB41f9fadcBE91A;

  function setAddress(address payable add) public {
      myAddress = add;
  }

  function getBalance() public view returns(uint){
      return myAddress.balance;
  }

  function getAddress() public view returns(address){
      return myAddress;
  }

  function pay() public payable{
    myAddress.transfer(msg.value);
  }

}
```

Rules for Assignment completion and submission

1) Each task should be ina separate file
2) Files name should be the task name e.g task1, task2, task 3
    a) task1.sol
3) You should upload your code on GitHub or google drive and share link for code review
4) All files in the assignment should be in one folder and folder name should contain assignment number e.g assignment1_YourRollNo, assignment2_YourRollNo
    a) Create a folder
    b) Add all tasks file in this assignment folder
    c) Push code on Github or upload folder on google drive
    d) Share the GitHub URL or drive URL for code review