//SPDX-License-Identifier: GPL-3.0

pragma solidity >=0.5.0 <0.9.0;

contract Lottery{

address payable[] public players;

address public manager;

constructor(){

manager = msg.sender;

}

receive () payable external{

require(msg.value == 0.1 ether);

players.push(payable(msg.sender));

}

function getBalance() public view returns(uint){

require(msg.sender == manager);

return address(this).balance;

}

function random() internal view returns(uint){

return uint(keccak256(abi.encodePacked(block.difficulty, block.timestamp, players.length)));

}

function pickWinner() public{

require(msg.sender == manager);

require (players.length >= 3);

uint r = random();

address payable winner;

uint index = r % players.length;

winner = players[index];

winner.transfer(getBalance());

players = new address payable[](0);

}

}