

```
//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);  
  }  
}
```