

Running 1 test for test/ReentrancyAttack.t.sol:ReentrancyAttackTest  
[PASS] testAttackFails() (gas: 556163)


Logs:

EVE balance 1000000000000000000  
etherStore balance 2000000000000000000  
attack SC balance 0

Traces:

```
[556163] ReentrancyAttackTest::testAttackFails()
├─ [198726] → new EtherStore@0x5615dEB798BB3E4dFa0139dFa1b3D433Cc23b72f
│   └─ ← 882 bytes of code
├─ [0] VM::deal(0x00000000000000000000000000000000A11cE, 100000000000000000 [1e18])
│   └─ ← ()
├─ [0] VM::prank(0x00000000000000000000000000000000A11cE)
│   └─ ← ()
├─ [22434] EtherStore::deposit{value: 1000000000000000000}{}
│   └─ ← ()
├─ [0] VM::deal(0x00000000000000000000000000000000B0b, 100000000000000000 [1e18])
│   └─ ← ()
├─ [0] VM::prank(0x00000000000000000000000000000000B0b)
│   └─ ← ()
├─ [22434] EtherStore::deposit{value: 1000000000000000000}{}
│   └─ ← ()
├─ [131908] → new Attack@0x2e234DAe75C793f67A35089C9d99245E1C58470b
│   └─ ← 547 bytes of code
├─ [0] VM::deal(0x00000000000000000000000000000000eFE, 100000000000000000 [1e18])
│   └─ ← ()
├─ [0] VM::prank(0x00000000000000000000000000000000eFE)
│   └─ ← ()
├─ [0] VM::expectRevert()
│   └─ ← ()
├─ [39132] Attack::attack{value: 1000000000000000000}{}
│   └─ [22434] EtherStore::deposit{value: 1000000000000000000}{}
│       └─ ← ()
│       └─ [8873] EtherStore::withdraw()
│           └─ [1168] Attack::fallback{value: 1000000000000000000}{}
│               └─ [391] EtherStore::withdraw()
│                   └─ ← "REENTRANCY"
│                   └─ ← "REENTRANCY"
│                   └─ ← "Failed to send Ether"
│                   └─ ← "Failed to send Ether"
├─ [0] console::log(EVE balance, 1000000000000000000 [1e18]) [staticcall]
│   └─ ← ()
├─ [0] console::log(etherStore balance, 2000000000000000000 [2e18]) [staticcall]
│   └─ ← ()
├─ [0] console::log(attack SC balance, 0) [staticcall]
│   └─ ← ()
└─ ← ()
```

Test result: ok. 1 passed; 0 failed; 0 skipped; finished in 1.03ms  
Ran 1 test suites: 1 tests passed, 0 failed, 0 skipped (1 total tests)



```
function testAttack() public {
    // 1. Deploy EtherStore
    etherStore = new EtherStore();

    // 2. Deposit 1 Ether each from Account 1 (Alice) and Account 2 (Bob) into
    EtherStorehoax(ALICE, 1 ether);
    etherStore.deposit{value: 1 ether}();
    assertEq(address(ALICE).balance, 0);

    hoax(BOB, 1 ether);
    etherStore.deposit{value: 1 ether}();
    assertEq(address(BOB).balance, 0);

    // 3. Deploy Attack with address of EtherStore
    attackContract = new Attack(address(etherStore));

    // 4. Call Attack.attack sending 1 ether (using Account 3 (Eve)).
    //     You will get 3 Ethers back (2 Ether stolen from Alice and Bob,
    //     plus 1 Ether sent from this contract).
    hoax(EVE, 1 ether);
    attackContract.attack{value: 1 ether}();
    assertEq(address(EVE).balance, 0);
    assertEq(address(etherStore).balance, 0);
    assertEq(address(attackContract).balance, 3 ether);
}
```

```
function testAttackFails() public {
  // 1. Deploy EtherStore
  etherStore = new EtherStore();

  // 2. Deposit 1 Ether each from Account 1 (Alice) and Account 2 (Bob) into EtherStore
  hoax(ALICE, 1 ether);
  etherStore.deposit{value: 1 ether}();
  assertEq(address(ALICE).balance, 0);

  hoax(BOB, 1 ether);
  etherStore.deposit{value: 1 ether}();
  assertEq(address(BOB).balance, 0);

  // 3. Deploy Attack with address of EtherStore
  attackContract = new Attack(address(etherStore));

  // 4. Call Attack.attack sending 1 ether (using Account 3 (Eve)).
  //     You will not get 3 Ethers back (2 Ether stolen from Alice and Bob,
  //     plus 1 Ether sent from this contract). Instead the `withdraw` function
  //     would fail on second attempt & hence, the entire `attack` function would roll back although
  //     `deposit` works.
  hoax(EVE, 1 ether);
  vm.expectRevert();
  attackContract.attack{value: 1 ether}();
  console2.log("EVE balance", address(EVE).balance);
  console2.log("etherStore balance", address(etherStore).balance);
  console2.log("attack SC balance", address(attackContract).balance);
  // assertEq(address(EVE).balance, 1 ether);
  // assertEq(address(etherStore).balance, 2 ether);
  // assertEq(address(attackContract).balance, 0);
}
```