

Before running test case:

Ensure that the following changes are made in TicketChain.sol:

1. comment out

```
require( now >= eventTicket.openSaleTime() && now < eventTicket.closingSaleTime(), "Not within sale time" );
```

2. comment out

```
recipient.transfer(msg.value - commission);
```

and replace it with

```
recipient.send(msg.value - commission);
```

TicketChain.sol (Original):

```
function buy(uint256 eventId, uint256 ticketId)
    public
    payable
    validEvent(eventId)
{
    require(ticketsListing[eventId][ticketId].listed, "Ticket is not listed.");
    EventTicket eventTicket = events[eventId];
    require(msg.value >= ticketsListing[eventId][ticketId].price, "msg.value is not sufficient");
    //comment out
    require( now >= eventTicket.openSaleTime() && now < eventTicket.closingSaleTime(), "Not within sale time" );

    address payable recipient = address(
        uint160(eventTicket.getPrevOwner(ticketId))
    );
    delete ticketsListing[eventId][ticketId];
    eventTicket.transferTo(ticketId, msg.sender);
    //comment out and use this: recipient.send(msg.value - commission);
    recipient.transfer(msg.value - commission);
}
```

TicketChain.sol (For testing):

```
function buy(uint256 eventId, uint256 ticketId)
    public
    payable
    validEvent(eventId)
{
    require(ticketsListing[eventId][ticketId].listed, "Ticket is not listed.");
    EventTicket eventTicket = events[eventId];
    require(msg.value >= ticketsListing[eventId][ticketId].price, "msg.value is not sufficient");
    //comment out
    //require( now >= eventTicket.openSaleTime() && now < eventTicket.closingSaleTime(), "Not within sale time" );

    address payable recipient = address(
        uint160(eventTicket.getPrevOwner(ticketId))
    );
    delete ticketsListing[eventId][ticketId];
    eventTicket.transferTo(ticketId, msg.sender);
    //comment out and use this:
    recipient.send(msg.value - commission);
    //recipient.transfer(msg.value - commission);
}
```

Test case scenario	Test for
Owner deploy TicketChain and set commission	Success
Event organiser creates and updates event name, event venue, event date time, open sale time, closing sale time	Success
Event organiser mass mint 5 tickets	Failure [Unable to mass mint as EventTicket not initialize]
Event organiser initialise event	Success
Event organiser mass mint 2 ticket	Success
Event organiser mint 1 ticket	Success
Event organiser mass list 3 tickets	Success
Event organiser updates event name, event venue, event date time, open sale time, closing sale time	Failure [Unable to update Event Name as tickets are listed; Unable to update Event Venue as tickets are listed; Unable to update Event Date Time as tickets are listed; Unable to update Open Sale Time as tickets are listed; Unable to update Closing Sale Time as tickets are listed]
Buyer A buys 2 tickets	Success
Buyer A list ticket above original price	Failure [Unable to list ticket above original price]
Buyer A list ticket below original price	Success
Buyer B buys 1 ticket	Success
Owner changes value of commission	Success
Buyer C buys 1 ticket	Success
Buyer C list ticket at original price	Success
Buyer C update price of ticket to below original price	Success
Buyer C unlist ticket	Success
Buyer A, Buyer B and Buyer C enter the concert and tickets burnt	Success

Test outcome:

```

Contract: TicketChain
  ✓ Owner deploy TicketChain and set commission (143ms)
  ✓ Event organiser creates and updates event name, event venue, event date time, open sale time, closing sale time (949ms)
Assert.fail tested: Unable to mass mint as EventTicket not initialise
  ✓ Event organiser mass mint 5 tickets (158ms)
  ✓ Event organiser initialise event (365ms)
  ✓ Event organiser mass mint 2 tickets (305ms)
  ✓ Event organiser mint 1 ticket (196ms)
  ✓ Event organiser mass list 3 tickets (1147ms)
Assert.fail tested: Unable to update Event Name as tickets are listed
Assert.fail tested: Unable to update Event Venue as tickets are listed
Assert.fail tested: Unable to update Event Date Time as tickets are listed
Assert.fail tested: Unable to update Open Sale Time as tickets are listed
Assert.fail tested: Unable to update Closing Sale Time as tickets are listed
  ✓ Event organiser updates event name, event venue, event date time, open sale time, closing sale time (261ms)
  ✓ Buyer A buys 2 tickets (453ms)
Assert.fail tested: Unable to list ticket above original price
  ✓ Buyer A list ticket above original price (276ms)
  ✓ Buyer A list ticket below original price (144ms)
  ✓ Buyer B buys 1 ticket (314ms)
  ✓ Owner changes value of commission (136ms)
  ✓ Buyer C buys 1 ticket (210ms)
  ✓ Buyer C list ticket at original price (349ms)
  ✓ Buyer C update price of ticket to below original price (183ms)
  ✓ Buyer C unlist ticket (138ms)
  ✓ Buyer A, Buyer B and Buyer C enter the concert and tickets burnt (598ms)

18 passing (7s)

```