Simple Marketplace Sample Application for Azure Blockchain Workbench¶

Overview¶

The Simple Marketplace application expresses a workflow for a simple transaction between an owner and a buyer in a marketplace. The state transition diagram below shows the interactions among the states in this workflow.

Application Roles¶

Name Description Owner A person who wants to sell on the marketplace. Buyer A person who wants to buy from the marketplace.

States¶

Name Description ItemAvailable Indicates that an owner has made the item they want to sell available in the marketplace. OfferPlaced Indicates that a seller has made an offer to buy the item listed by an owner. Accepted Indicates that the owner has accepted the buyer's offer for the item.

Workflow Details¶

An instance of the Simple Marketplace application's workflow starts in the ItemAvailable state when an Owner makes an item available for sale by specifying its description and price. A buyer can then make an offer by specifying their price for the item. This action causes the state to change from ItemAvailable to OfferPlaced. Now, if the owner agrees to the buyer's offer, then owner calls the function to accept an offer, and the workflow reaches a successful conclusion state denoted by the Accepted state. If the owner, however, is not satisfied with the offer, then the owner can call the function to reject the offer. On rejection, the state changes to ItemAvailable indicating that the item is still up for sale. The transitions between the ItemAvailable and the OfferPlaced states can continue until the owner is satisfied with the offer made.

A happy path shown in the transition diagram traces an owner making an item available, a buyer making an offer, and the owner accepting the offer.

Application Files¶

SimpleMarketplace.sol