Class Diagram / Data Model for Coffee Supply Chain

FarmerRole (AccessControl)

+ farmerAddress:address

+ isFarmer(address): bool
+addFarmer(address)
+ renounceFarmer()

DistributorRole (AccessControl)

+ distributorAddress:address

+ isDistributor(address): bool
+addDistributor(address)
+ renounceDistributor()

RetailerRole (AccessControl)

+ retailerAddress:address

+ isRetailer(address): bool
+addRetailer(address)
+ renounceRetailerr()

ConsumeRole (AccessControl)

+ consumerAddress:address

+ isConsumer(address):bool
+ addConsumer(address)
+ renounceConsumer()

SupplyChain (Base)

+ owner: address;
+ upc: uint;
+ sku: unit;
+ Item: struct
+ State: enum

+ harvestItem()
+ processItem()
+ packItem()
+ sellItem()
+ buyItem()
+ shipItem()
+ receiveItem()
+ purchaseItem()
+ kill()
+ fetchItemBufferOne(upc)
+ fetchItemBufferTwo(upc)

Ownable (Core)

+ owner():address
+ isOwner():bool
+ renounceOwnership()
+ transferOwnership(address)