**UC-6**

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control Controller as PC

activate Staff

Staff -> EI : import goods

activate EI

EI -> PC: id\*:=createImportInvoice(staff)

activate PC

PC --> EI : invoice id

deactivate PC

Staff -> EI : agency\*:=agency info

Staff -> EI : supplier\*:=supplier info

loop number of \nimported products

Staff -> EI: product info

end

EI -> Staff: total price

EI -> PC: updateImportInvoice\n(id\*, agency\*, supplier\*, <list of products>)

activate PC

deactivate PC

opt update in-stock products information

Staff -> EI : update in-stock products

loop number of imported products

EI -> PC: updateProduct(product\*)

activate PC

deactivate PC

end

end

EI -> Staff : export purchase invoice

deactivate EI

deactivate Staff

@enduml

**UC-7**

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control Controller as PC

activate Staff

Staff -> EI : create sale invoice

activate EI

EI -> PC: id\*:=createSaleInvoice(staff)

activate PC

PC --> EI : invoice id

deactivate PC

alt successful case

Staff -> EI : customer\*:=customer info

Staff -> EI : seller\*:=seller (staff) info

Staff -> EI : payment\*:=payment method

opt Customer applied discount or promotion code

Staff -> EI : discount\*:=discount

end

loop number \nof products

Staff -> EI: product info

end

EI -> PC: updateSaleInvoice\n(id\*, customer\*, seller\*, <list of products>)

EI -> Staff: total price

EI -> Staff : export sale invoice

deactivate Staff

else Staff cancels the invoice creation

EI -> PC: deleteSaleInvoice(id\*)

EI -> Staff: Cancelation success message

deactivate EI

end

@enduml

**UC-8**

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control ProductControl as PC

activate Staff

Staff -> EI : keyword\*

activate EI

EI -> PC : products\*:=searchProduct(keyword\*)

activate PC

deactivate PC

EI -> Staff: products\*

deactivate EI

opt

Staff -> EI : filter\*

activate EI

EI -> PC : filteredProducts\*:=filterProduct(filter\*)

activate PC

deactivate PC

EI -> Staff: filteredProducts\*

deactivate EI

end

Staff -> EI : selectedProduct\*

activate EI

EI -> Staff: product's warranty information

deactivate EI

Staff -> EI: Issue warranty

activate EI

EI -> Staff : export warranty

EI -> PC : addWarrantyHistory(selectedProduct\*)

activate PC

deactivate PC

deactivate EI

deactivate Staff

@enduml

**UC-9**

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control Controller as PC

activate Staff

Staff -> EI : keyword\*

activate EI

EI -> PC : customers\*\n:=searchCustomer(keyword\*)

activate PC

deactivate PC

EI -> Staff: customers\*

deactivate EI

opt

Staff -> EI : filter\*

activate EI

EI -> PC : filteredCustomers\*\n:=filterCustomers(filter\*)

activate PC

deactivate PC

EI -> Staff: filteredCustomers\*

deactivate EI

end

Staff -> EI : selectedCustomers\*

activate EI

EI -> Staff: customers information

deactivate EI

Staff -> EI: selectedPurchaseHistory\*

activate EI

EI -> PC : getPurchaseHistory\n(selectedPurchaseHistory\*)

activate PC

deactivate PC

EI -> Staff : warranty history and status

deactivate EI

deactivate Staff

@enduml

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control Controller as PC

activate Staff

Staff -> EI : keyword\*

activate EI

EI -> PC : customers\*\n:=searchCustomer(keyword\*)

activate PC

deactivate PC

EI -> Staff: customers\*

deactivate EI

opt

Staff -> EI : filter\*

activate EI

EI -> PC : filteredCustomers\*\n:=filterCustomers(filter\*)

activate PC

deactivate PC

EI -> Staff: filteredCustomers\*

deactivate EI

end

Staff -> EI : selectedCustomers\*

activate EI

EI -> Staff: customers information

deactivate EI

Staff -> EI: modify customer

activate EI

EI -> Staff: modify customer form

Staff -> EI : newCustomerInfo\*

EI -> PC : updateCustomer\n(newCustomerInfo\*)

activate PC

deactivate PC

EI -> Staff : success message

deactivate EI

deactivate Staff

@enduml

**UC-17**

@startuml

actor Admin as Staff

boundary ESMSInterface as EI

control SupplierControl as PC

activate Staff

Staff -> EI : keyword\*

activate EI

EI -> PC : supplier\*\n:=searchSupplier(keyword\*)

activate PC

deactivate PC

EI -> Staff: supplier\*

deactivate EI

Staff -> EI : selectedSupplier\*

activate EI

EI -> Staff: suppliers information

deactivate EI

Staff -> EI: inspect change history

activate EI

EI -> PC : histories\*\n:=getAllChangeHistories(selectedSupplier\*)

activate PC

deactivate PC

EI -> Staff: histories\*(in a table, \nsorted descendingly by day)

deactivate EI

opt filter changes in one day

Staff -> EI: filterDay\*

activate EI

EI -> PC: filteredHistories\*:=filterChangeHistory\n(selectedSupplier\*, filterDay\*)

activate PC

deactivate PC

EI -> Staff : filteredHistories\*

deactivate EI

end

Staff -> EI : selectedDay\*

activate EI

EI -> PC: changes\*=getChangeHistoryByDay\n(selectedSupplier\*, selectedDay\*)

activate PC

deactivate PC

EI-> Staff : changes\*

deactivate EI

Staff -> EI : selectedChange\*

activate EI

EI -> PC: changeDetails\*:=\ngetChangeDetails(selectedChange\*)

activate PC

deactivate PC

EI -> Staff:changeDetails\*

deactivate EI

deactivate Staff

@enduml

**UC-20**

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control StaffControl as PC

control EmailService as ES

activate Staff

Staff -> EI : register new account

activate EI

EI -> Staff : register form

Staff -> EI : staffInfo\*

Staff -> EI : credentials\* (password)

EI -> PC: createStaff(staffInfo\*)

activate PC

EI -> PC : createAccount(staffInfo\*, credentials\*)

deactivate PC

EI -> Staff : confirm\*:=Agree to Term and Condition

alt success case

Staff -> EI: confirm\*:=true

EI -> ES : verifyUser(staffInfo\*)

activate ES

ES --> Staff : verification email

deactivate ES

alt The receiver of the email \ndid not try to create an account

EI -> Staff : An error has occurred \nwhen verifying email

EI -> PC: deleteStaff(staffInfo\*)

activate PC

EI -> PC: deleteAccount(staffInfo\*)

deactivate PC

end

else Staff does not agree

loop !confirm\* and \nStaff still tries to register

EI -> Staff : ask Staff to agree

EI -> PC: deleteStaff(staffInfo\*)

activate PC

EI -> PC: deleteAccount(staffInfo\*)

deactivate PC

end

deactivate EI

deactivate Staff

end

@enduml

**UC-21**

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control AccountControl as PC

activate Staff

Staff -> EI : log in

activate EI

EI -> Staff : log in form

deactivate EI

Staff -> EI : credentials\*

activate EI

EI -> PC : status\*:=login(credentials\*)

activate PC

deactivate PC

alt success case

EI -> Staff : 'login success' message

else wrong password

EI -> Staff : 'wrong password' message

else email has not been registed

EI -> Staff : 'email has not been registered message'

EI -> Staff : try a different email\nor register new account

end

deactivate EI

deactivate Staff

@enduml

**UC-26**

@startuml

actor Staff as Staff

boundary ESMSInterface as EI

control ProductControl as PC

activate Staff

alt normal flow

Staff -> EI : view archived products

activate EI

EI -> PC : products\*:=getArchivedProducts()

activate PC

deactivate PC

EI -> Staff : products\*

deactivate EI

Staff -> EI : selectedProduct\*

activate EI

EI -> PC: productDetails\*:=\ngetProductDetails(selectedProduct\*)

activate PC

deactivate PC

EI -> Staff : productDetails\*

deactivate EI

Staff -> EI : restore selectedProduct\*

activate EI

EI -> PC : restoreArchivedProduct\n(selectedProduct\*)

activate PC

deactivate PC

EI -> Staff : success message

deactivate EI

else view archived product list after deleting a product

Staff -> EI: just deleted a product

activate EI

EI -> PC : products\*:=getArchivedProducts()

activate PC

deactivate PC

EI -> Staff : products\*

end

deactivate EI

deactivate Staff

@enduml