**AddAndRetrieveAccount**

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| --- | --- |
| **Attributes** | **Methods** |
| N/A | adminSignUp()  salespersonSignUp()  shareholderSignUp()  addSupplier()  addCustomer()  recoverUserAccount() |
| **Responsibilities** | **Collaborative classes** |
| N/A | Administrator, Salesperson, Shareholder, Supplier, Customer |

**Note:** After installation of device adminSignUp() method will be called by the system. The administrator will register salespersons and shareholders via salespersonSignp() and shareholderSignUp() methods. Suppliers will be included in the system by the administrator upon calling addSupplier() method. Administrator and salespersons can include customer by addCustomer() method. For recovering account, recoverUserAccount() method will be invoked.

**SignInAndSignOut**

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| --- | --- |
| **Attributes** | **Methods** |
|  | checkValidity()  checkActiveProcess()  recordLogInformation() |
| **Responsibilities** | **Collaborative Classes** |
| Authenticate | HRManagementDatabase |
| Record log information | RecordManagementDatabase |

**Note:** The system invokes checkValididty() of SIgnInAndSignOut class when the entered username and the email needs to be matched with the username and the password within HRManagementDatabase. If user is salesperson his/her first login time for respective day will be recorded in RecordManagementDatabase.

During sign out, the system will call checkActiveProcess() which will show if there are any running process. The last logout time will be recorded everyday by RecordManagemenDatabase.

**User**

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| --- | --- |
| **Attributes** | **Methods** |
| username  fullname  password  email  presentAddress  permanentAddress  NID | User(): constructor  recoverAccount()  signOut()  \*getter and setter for all attributes |
| **Responsibilities** | **Collaborative Class** |
| N/A | N/A |

**Note:** When recoverAccount() method will be called, recoverUserAccount() of AddAndRetrieveAccount will be invoked and signOut() method will be called when user wants to exit the system.

**Administrator**

|  |  |
| --- | --- |
| **Attributes** | **Methods** |
| backUpQuestion  correspondingAnswer | addSalesperson()  removeSalesperson()  editSalesperson()  addShareholder()  removeShareholder()  editShareholder()  addSupplier()  removeSupplier()  editSupplier()  shareholderAddInvestment()  shareholderWithdrawCash()  payMaintenanceExpenditure()  viewTransaction()  manageProduct() |
| **Responsibility** | **Collaborative Classes** |
| HR Management | AddAndRetrieveAccount,  HRManagementDatabase |
| Cash Management | HRManagementDatabase, CashDetails |
| Product Management | Product, ProductManagementDatabase |
| Notification Management | RecordManagement |

**Note:** When Administrator class calls addSalesperson() method, SalespersonSignUp() method of addAndRetrieveAccount() class will be invoked. The information found from salespersonSignUp() will be stored in HRManagement database. When removeSalesperson() method is called , salesperson information will be removed from HRManagementDatabase. When editSalesperson() method is called, salesperson information will be edited.

When Administrator class calls addShareholder() method, shareholderSignUp() method of addAndRetrieveAccount() class will be invoked. The information found from shareholderSignUp() will be stored in HRManagement database. When removeSalesperson() method is called , salesperson information will be removed from HRManagementDatabase. When editShareholder() method is called, shareholder information will be edited.

When Administrator class calls addSupplier() method, addSupplier() method of addAndRetrieveAccount() class will be invoked. The information found from addSupplier() will be stored in HRManagement database. When removeSupplier() method is called , supplier information will be removed from HRManagementDatabase. When editSupplier() method is called, supplier information will be edited.

When shareholderAddInvestment() method is called, updateShareholderInformation() of HRManagementDatabase and increaseAssets() of cashDetails will be invoked. The increment will be done via respective methods.

When shareholderWithdrawCash() method is called updateShareholderInformation() method of HRManagementDatabase and decreaseAssets() method of cashDetails() will be invoked. The decrement will be done via respective methods.

When payMaintenanceExpenditure() method is called updateExpenseAmount() method of cashDetails will be invoked.

When manageNotification() method is called, notification details from RecordManagementDatabase will be displayed.

When viewRecord() method is calleda all tables of RecordManagementDatabase will be displayed such as notification records, loan records, missing product records, salesperson log information will be updated.

**Salesperson**

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| --- | --- |
| **Attributes** | **Methods** |
| spRecritmentDay  spSalary | addCustomer()  deleteCustomer()  updateCustomerInformation()  searchbyProductName()  searchbyCompanyName()  searchbyComponentName()  initiateTransaction()  addLoan()  addProduct()  removeProduct()  updateProduct()  updateCash()  notifyAdministrator()  notifySalesperson() |
| **Responsibilities** | **Collaborative Classes** |
| Notification Management | Notification, RecordManagementDatabase |
| Product Management | Product, ProductManagementDatabase |

**Note:** When addCustomer() method is called, addCustomerInformation() of HRManagement database is invoked amd customer information is stored.

When deleteCustomer() method is called, removeCustomerInformation() of HRManagement database is invoked and customer information is removed.

If due payment of customer changes, updateCustomerInformation() method of Salesperson class will call updateCustomerInformation() method of HRManagementDatabase and information is updated.