|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Event | Primary Object | Collaborators | Corresponding Methods |
| 1 | Registers administrator | Registration | HRmanagementDatabase | Registration:  administratorSignUp()  HRmanagementDatabase:  addAdministratorInformation() |
| 2 | Registers salesperson | Registration | Administrator,  HRManagamentDatabase | Registration:  salespersonSignUp()  Administrator:  addSalesperson()  HRManagementDatabase:  addSalespersonInformation() |
| 3 | Registers shareholder | Registration | Administrator,  HRManagementDatabase | Registration:  shareholderSignUp()  Administrator:  addShareholder()  HRManagementDatabase:  addShareholderInformation() |
| 4 | Adds suppliers | Registration | Administrator,  HRManagementDatabase | Registration:  addSupplier()  Administrator:  addSupplier()  HRManagementDatabase:  addSupplierInformation() |
| 5 | Adds customers | Registration | Salasperson, HRManagementDatabase | Registration:  addSupplier()  Salesperson:  addCustomer()  HRManagementDatabase:  addCustomerInformation() |
| 6 | Checks validity | Authentication | HRManagementDatabase | Authentication:  checkValidity()  HRManagementDatabase:  getAdministratorInformation()  getShareholderInformation()  getSalespersonInformation() |
| 7 | Stores first log in time | Authentication | RecordManagementDatabase | Authentication:  recordLogInformation()  RecordManagementDatabase:  addLoginSession() |
| 8 | Records last log out time | Authentication | RecordManagementDatabase | Authentication:  recordLogInformation()  RecordManagementDatabase:  addLogoutSession()  editLogoutSession () |
| 9 | Allows to retry at wrong username and password | Authentication |  |  |
| 10 | Prompts for notifying about unsaved data or process | Authentication |  | Authentication:  checkActiveProcess() |
| 11 | Allows to recover account | Authentication |  | Authentication:  recoverUserAccount() |
| 12 | Matches answer with stored one in database | Authentication | HRManagementDatabase | HRManagementDatabase:  getAdministratorInformation()  getShareholderInformation()  getSalespersonInformation() |
| 13 | Sends confirmation code | Authentication | HRManagementDatabase | HRManagementDatabase:  storeConfirmationCode() |
| 14 | Checks confirmation code | Authentication | HRManagementDatabase | HRManagementDatabase:  getConfirmationCode() |
| 15 | Change account information | Authentication | HRManagementDatabase | HRManagementDatabase:  updateAdministratorInformation()  updateSalespersonInformation()  updateShareholderInformation() |
| 16 | Recovers own account | User | Authentication | User:  recoverAccount()  Authentication:  recoverUserAccount() |
| 17 | Signs out from system | User | Authentication | User:  signOut()  Authentication:  checkActiveProcess() |
| 18 | Views system information | User | System | User:  viewSystemInformation()  System:  ViewSystemSummary() |
| 19 | Receives notifications | User | RecordManagementDatabase | User:  receiveNotofication()  RecordManagementDatabase:  getNotofication() |
| 20 | Includes salesperson | Administrator | Registration | Administrator:  addSalesperson()  Registraion:  salespersonSIgnUp() |
| 21 | Excludes salesperson | Administrator | HRManagementDatabase | Administrator:  removeSalesperson()  HRManagementDatabase:  removeSalespersonInformation() |
| 22 | Edits salesperson’s Information | Administrator | HRManagementDatabase | Administrator:  editSalesperson()  HRManagementDatabase:  updateSalespersonInformation() |
| 23 | Includes suppliers | Administrator | Registration | Administrator:  addSupplier()  Registraion:  addSupplier() |
| 24 | Excludes salesperson | Administrator | HRManagementDatabase | Administrator:  removeSupplier()  HRManagementDatabase:  removeSupplierInformation |
| 25 | Edits supplier’s Information | Administrator | HRManagementDatabase | Administrator:  editSupplier()  HRManagementDatabase:  updateSupplierInformation() |
| 26 | Includes shareholder | Administrator | Registration | Administrator:  addShareholder()  Registraion:  shareholderSIgnUp() |
| 27 | Excludes shareholder | Administrator | HRManagementDatabase | Administrator:  removeShareholder()  HRManagementDatabase:  removeShareholderInformation() |
| 28 | Edits shareholder ‘s Information | Administrator | HRManagementDatabase | Administrator:  editShareholder()  HRManagementDatabase:  updateShareholderInformation() |
| 29 | Adds shareholder’s investment | Administrator | HRManagementDatabase,  CashDetails, | Administrator:  addShareholderInvestment()  HRManagementDatabase:  updateShareholderInformation()  CashDetails:  increaseAsset() |
| 30 | Withdraws shareholder’s investment | Administrator | HRManagementDatabase,  CashDetails, TransactionManagementDatabase | Administrator:  withdrawShareholderInvestment()  HRManagementDatabase:  updateShareholderInformation()  CashDetails:  decreaseAsset()  TransactionManagementDatabase:  addMaintenanceTransactionInformation() |
| 32 | Views transaction summery | Administrator | TransactionManagementDatabase | Administrator:  viewTransaction()  TransactionManagementDatabase:  getAllTransaction() |
| 33 | Search product | Administrator |  |  |
| 32 | Add Products | Administrator | ProductManagementDatabase | Administrator:  manageProduct()  ProductManagementDatabase:  addProduct() |
| 33 | Remove product | Administrator | ProductManagementDatabase | Administrator:  manageProduct()  ProductManagementDatabase:  removeProduct() |
| 34 | Add fixed time for expire date alert | Administrator |  |  |
| 35 | Update Product | Administrator | ProductManagementDatabase | Administrator:  manageProduct()  ProductManagementDatabase:  updateProduct() |
| 36 | Grants permission | Administrator | RecordManagementDatabase | Administrator:  manageNotification()  RecordManagement:  getRecordInformation()  addNotification() |
| 37 | Pays salary | Administrator | TransactionManagementDatabase, CashDetails | Administrator:  payMaintenanceExpenditure()  TransactionManagementDatabase:  addSalespersonSalaryTransaction()  CashDetails:  decreaseAsset() |
| 37 | Pays maintenance expenditure | Administrator | TransactionManagementDatabase, CashDetails | Administrator:  payMaintenanceExpenditure()  TransactionManagementDatabase:  addMaintenanceAndExpenditureTransaction()  CashDetails:  decreaseAsset() |
| 38 | Adds new customers | Salesperson | Registration | Salesperson:  addCustomer()  Registration:  addCustomer() |
| 39 | Remove customers | Salesperson | HRManagementDatabase | Salesperson:  deleteCustomer()  HRManagementDatabase:  removeCustomerInformation() |
| 40 | Edit customer information | Salesperson | HRManagementDatabase | Salesperson:  updateCustomerInformation()  HRManagementDatabase:  updateCustomerInformation() |
| 41 | Search product by name | Salesperson | ProductManagementDatabase | Salesperson:  searchProuctByName()  ProductManagementDatabase:  searchProuctByName() |
| 42 | Search product by company name | Salesperson | ProductManagementDatabase | Salesperson:  searchProuctByCompany()  ProductManagementDatabase searchProuctByCompany() |
| 43 | Search product by component name | Salesperson | ProductManagementDatabase | Salesperson:  searchProuctByComponent()  ProductManagementDatabase:  searchProuctByComponent() |
| 44 | Manage transactions | Salesperson | TransactionManagementDatabase | Salesperson:  initiateTransaction()  TransactionManagementDatabase:  addTransaction() |
| 45 | Return product back | Salesperson | TransactionManagementDatabase | Salesperson:  ReturnProductBack()  TransactionManagementDatabase:  updateTransaction() |
| 46 | Updates customer’s loan | Salesperson | RecordManagementDatabase | Salesperson:  updateCustomerLoan()  RecordManagementDatabase:  editLoan() |
| 47 | Adds customer’s loan | Salesperson | RecordManagementDatabase | Salesperson:  addCustomerLoan()  RecordManagementDatabase:  addLoan() |
| 48 | Remove customer’s loan | Salesperson | RecordManagementDatabase | Salesperson:  deleteCustomerLoan()  RecordManagementDatabase:  removeLoan() |
| 49 | Adds new products | Salesperson | ProductManagementDatabase | Salesperson:  addProduct()  ProductManagementDatabase:  addProduct() |
| 50 | Updates product Information | Salesperson | ProductManagementDatabase | Salesperson:  updateProduct()  ProductManagementDatabase:  updateProduct() |
| 51 | Removes product | Salesperson | ProductManagementDatabase | Salesperson:  removeProduct()  ProductManagementDatabase:  removeProduct() |
| 52 | Updates cash | Salesperson | CashDetails | Salesperson:  updateCash()  CashDetails:  increaseAsset()  decreaseAsset() |
| 53 | Notifies Administrator | Salesperson | RecordManagementDatabase | Salesperson:  notifyAdministrator()  RecordManagementDatabase:  addNotification() |
| 54 | Notifies Supplier | Salesperson | RecordManagementDatabase | Salesperson:  notifySupplier()  RecordManagementDatabase:  addNotification() |
| 55 | Gets monthly payment | Salesperson |  | Salesperson:  getMonthlyPayment() |
| 56 | Withdraw cash | Shareholder | RecordManagementDatabase | Shareholder:  withdrawCashOrInvest()  RecordManagementDatabase:  addNotification() |
| 57 | Invest Cash | Shareholder | RecordManagementDatabase | Shareholder:  withdrawCashOrInvest()  RecordManagementDatabase:  addNotification() |
| 58 | View cash Information | Shareholder | System | Shareholder:  viewCashInformation()  System:  viewSystemSummery() |
| 59 | Receives request for products | Supplier | Salesperson, System | Supplier:  receiveProductRequest()  Salesperson:  notifySupplier()  System:  notifySupplier() |
| 60 | Receives payment for products | Supplier | TransactionManagementDatabase, CashDetails | Supplier:  receivePayment()  TransactionManagementDatabase:  addMaintenanceAndExpenditureCost()  CashDetails:  decreaseAsset() |
| 61 | Change company information | Supplier | HRManagementDatabase | Supplier:  changeCompanyInformation()  HRManagementDatabase:  updateSupplierInformation() |
| 62 | Delivers products | Supplier | ProductManagementDatabase | Supplier:  deliverProduct()  ProductManagementDatabase:  addProduct()  updateProduct() |
| 63 | Due | Customer | RecordManagementDatabase | Customer:  increaseDueAmount()  RecordManagementDatabase:  addLoan()  editLoan() |
| 64 | Pay for previous due | Customer | RecordManagementDatabase, CashDetails | Customer:  decreaseDueAmount()  RecordManagementDatabase:  editLoan()  removeLoan()  CashDetails:  updateDaptorAmount() |
|  |  |  |  |  |
| 65 | Update sale frequency | Product | ProductManagementDatabase | Product:  updateSaleFrequency()  ProductManagementDatabase:  updateProduct () |
| 66 | Increase quantity | Product | ProductManagementDatabase | Product:  increaseQuantity()  ProductManagementDatabase:  updateProduct () |
| 67 | Decrease quantity | Product | ProductManagementDatabase | Product:  decreaseQuantity()  ProductManagementDatabase:  updateProduct () |
| 68 | Increase price | Product | ProductManagementDatabase | Product:  increasePrice()  ProductManagementDatabase:  updateProduct () |
| 69 | Decrease price | Product | ProductManagementDatabase | Product:  decreasePrice()  ProductManagementDatabase:  updateProduct () |
| 70 | Notify administrator | Notification | Administrator | Notification:  notifyAdministrator() |
| 71 | Notify supplier | Notification | Supplier | Notification:  notifySupplier()  Supplier:  receiveProductRequest() |
| 72 | Send low stock alert | Notification | Salesperson | Notification:  sendLowStockAlert() |
| 73 | Send expiry date alert | Notification | Salesperson | Notification:  sendExpiredateAlert() |
| 74 | Display system information | Graph | ProductManagementDatabase, CashDetails, TransActionManagementDatabase | Graph:  viewSystemInformation()  CashDetails:  getAssets()  getMonthlyProfit()  getYearlyProfit()  TransactionManagementDatabase:  getAllTransaction() |
| 75 | Provide information of assets | CashDetails |  | CashDetails:  getAssets() |
| 76 | Provide information of monthly profit | CashDetails |  | CashDetails:  getMonthlyProfit() |
| 78 | Provide information of yearly profit | CashDetails |  | CashDetails:  getYearlyProfit() |
| 79 | Increase assets | CashDetails |  | CashDetails:  increaseAssets() |
| 80 | Decrease assets | CashDetails |  | CashDetails:  decreaseAssets() |
| 81 | Store users information | HRManagementDatabase |  | HRManagementDatabase:  addAdministratorInformation()  addSalespersonInformation()  addShareholderInformation() |
| 82 | Updates users information | HRManagementDatabase |  | HRManagementDatabase:  updateAdministratorInformation()  updateSalespersonInformation()  updateShareholderInformation() |
| 83 | Remove users information from database | HRManagementDatabase |  | HRManagementDatabase:  removeAdministratorInformation()  removeSalespersonInformation()  removeShareholderInformation() |
| 84 | Store nonusers information | HRManagementDatabase |  | HRManagementDatabase:  addSupplierInformation()  addCustomerInformation() |
| 85 | Updates nonusers information | HRManagementDatabase |  | HRManagementDatabase:  updateSupplierInformation()  updateCustomerInformation() |
| 86 | Remove nonusers information from database | HRManagementDatabase |  | HRManagementDatabase:  removeSupplierInformation()  removeCustomerInformation() |
| 87 | Manage product lsit | ProductManagementDatabase |  | ProductManagementDatabase:  addProduct()  removeProduct()  updateProduct() |
| 88 | Manage expire date over product list | ProductManagementDatabase |  | ProductManagementDatabase:  addProductToExpireDateList()  removeProductFromExpireDateList ()  getProductFromExpireDaeList () |
| 89 | Manage low stock list | ProductManagementDatabase |  | ProductManagementDatabase:  addProductToLowStockList()  removeProductFromLowStockList ()  getProductFromLowStockList () |
| 90 | Search product by name | ProductManagementDatabase |  | ProductManagementDatabase:  searchProductByName() |
| 91 | Search product by company | ProductManagementDatabase |  | ProductManagementDatabase:  searchProductByCompany() |
| 92 | Search product by component | ProductManagementDatabase |  | ProductManagementDatabase:  searchProductByComponent() |
| 93 | Provide product information | ProductManagementDatabase |  | ProductManagementDatabase:  getAllProduct() |
| 94 | Store transaction information | TransactionManagementDatabase |  | TransactionManagementDatabase:  addTransaction() |
| 95 | Edits transaction information | TransactionManagementDatabase |  | TransactionManagementDatabase:  updateTransactiion() |
| 95 | ProvideTransactionInformation | TransactionManagementDatabase |  | TransactionManagementDatabase:  getAllTransaction()  getSalespersonSalaryTransaction()  getMaintenanceExpenditureTransaction() |
| 96 | Store maintenance transaction | TransactionManagementDatabase |  | TransactionManagementDatabase:  addMaintenanceExpenditureTransaction() |
| 97 | Remove transaction | TransactionManagementDatabase |  | TransactionManagementDatabase:  deleteTransaction() |
| 98 | Store loan information | RecordManagementDatabase |  | RecordManagementDatabase:  addLoan() |
| 99 | Update loan | RecordManagementDatabase |  | RecordManagementDatabase:  editLoan() |
| 100 | Remove loan information | RecordManagementDatabase |  | RecordManagementDatabase:  removeLoan() |
| 101 | Store missing products information | RecordManagementDatabase |  | RecordManagementDatabase:  addMissingProductReord()  addAccidentOrMissingRecord() |
| 102 | Store log in session | RecordManagementDatabase |  | RecordManagementDatabase:  addLoginSession() |
| 103 | Store log out session | RecordManagementDatabase |  | RecordManagementDatabase:  addLogoutSession() |
| 104 | Update log out session | RecordManagementDatabase |  | RecordManagementDatabase:  editLogoutSession() |
| 105 | Store profit information | RecordManagementDatabase |  | RecordManagementDatabase:  addProfitRecord() |
| 106 | Store Notifications | RecordManagementDatabase |  | RecordManagementDatabase:  addNotigication() |
| 107 | Provide notification | RecordManagementDatabase |  | RecordManagementDatabase:  getNotification() |
| 108 | Allows user to sign in | System | Authentication | System:  SignIn() |
| 109 | Checks expiry dates | System | ProductManagementDatabase | System:  checksExpiryDate()  ProductManagamentDatabase:  getAllProducts()  addProductToExpiryDateList() |
| 110 | Checks low stock products | System | ProductManagementDatabase | System:  checkLowStockDatabase()  ProductManagamentDatabase:  getAllProducts()  addProductToLowStockList() |
| 111 | Calculate Profit | System | CashDetails, TransactionManagementDatabase, RecordManagementDatabase | System:  calculateProfit()  CashDetails:  getAssets()  getMonthlyProfit()  getYearlyProfit()  TransactionManagementDatabase:  getAllTransaction() |
| 112 | Views business information | System | Graph | System:  viewgraph()  Graph:  viewSystemInformtion() |
| 113 | Notify suppliers | System | RecordManagementDatabase | System:  notifySupplier()  RecordManagementDatabase:  getNotofication() |
| 114 | Process entered | Interface |  | Interface:  processEnteredData() |
| 115 | Show graph | Interface | Graph | Interface:  showGraph()  Graph:  viewSystemInnformation() |
| 116 | Provide workspace for administrator | Interface |  | Interface:  createAdministratorWorkspace() |
| 117 | Provide workspace for transaction | Interface |  | Interface:  createTransactionManagementWorkspace() |
| 118 | Shows transactions information | Interface | TransactionManagementDatabase | Interface:  showTransactionInformation()  TransactionManagementDatabase:  getAllTransaction() |
| 119 | Shows notifications to users | Interface | RecordManagementDatabase | Interface:  showNotification()  RecordManagementDatabase:  getNotification() |
| 120 | Delivers and  confirm administrator | Supplier | RecordmanagementDatabase | Supplier:  confirmAdministrator()  RecordManagementDatabase:  addNotification() |
| 121 | Return product | Customer | Salesperson | Customer:  returnProduct()  Saleaperson:  getReturnProductFromCustomer() |
| 122 | Get return product from customers | Supplier | CashDetails ProductManagementDatabase, RecordManagementDatabase, Product | Supplier:  getReturnProductFromCustomer()  CashDetails:  decreaseAssets()  updateMonthlyProfit()  updateMonthlySale()  ProductManagementDatabase:  updateProduct()  RecordManagementDatabase:  editLoan()  Product:  updateSaleFrequency()  increaseQuantity() |
| 123 | Provide User Information | HRManagementDatabase |  | HRManagementDatabase:  getAdministratorInformation()  getSalespersonInformation()  getShareholderInformation() |
| 124 | Provide nonuser Information | HRManagementDatabase |  | HRManagementDatabase:  getCustomerInformation()  getSupplierInformation() |
| 125 | Receive payment from custormer | Salesperson | Customer, HRManagementDatabase | Salesperson:  editCustomerLoan()  HRManagementDatabase:  getCustomerInformation() |
| 126 | Manage customer recommendstion | Salesperson | ProductManagementDatabase, | Salesperson:  manageRecommendation()  ProductManagementDatabase:  addProductToRecomendationList()  UpdateRecomendationList()  getRecomentationListInformation() |
| 127 | Recommend for product | Customer | ProductManagementDatabase | Customer:  recommendForProduct()  ProductManagementDatabase:  addProductToRecomendationList() |
| 128 | Store Recommended product | Product Management Database |  | Product Management Database:  addProductToRecomendationList() |
| 129 | Calculate Price | System |  | System:  calculatePrice() |
|  |  |  |  |  |
|  |  |  |  |  |

Notes: addProductToRecomendationList()e

1. Event – 7 and Event – 8 are merged as Store log time.
2. Event – 13 and Event – 14 are merged as Validates confirmation code.