Order Processing System

Overview:

The project is a web-based application for processing orders and generating an invoice.

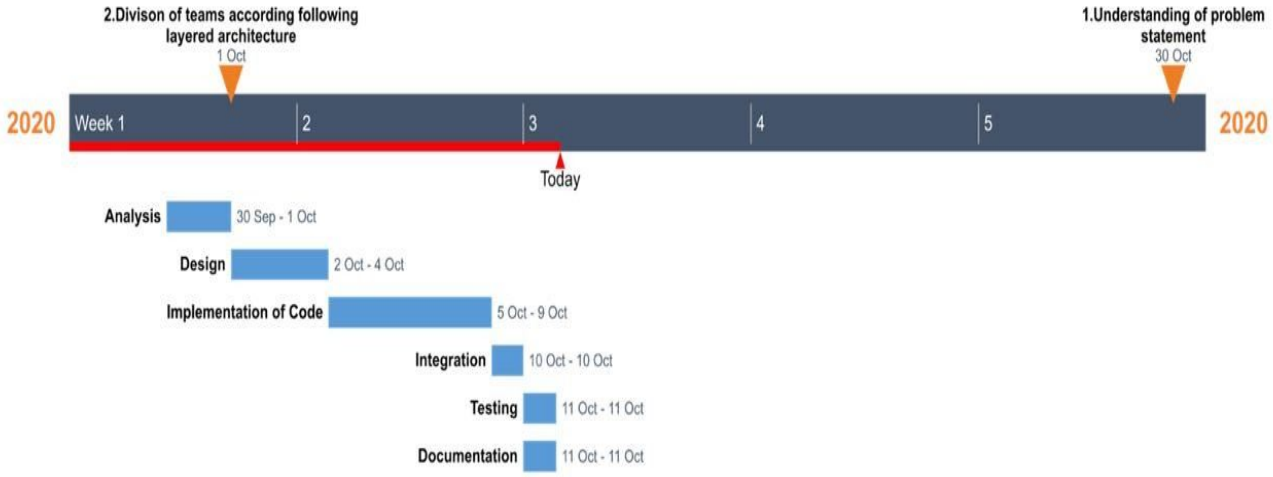
The system has Customers, Employees and Order Processing System Managers as its actors. The system allows the users to log in to the system based on their roles i.e. customer or employee. The customers can see the invoices for the past orders and they can also approve the pending items/orders on the Customer Order Management page.

The employees on the other hand can import/add new products to the system. They also are responsible for generating invoices or creating new quotes for the pending orders/orders waiting for approval.

Everyday at 12AM Invoice generation takes place wherein the invoices for the orders made on that day are generated. Calculation of shipping costs in compliance to different business rules also takes place within the system.

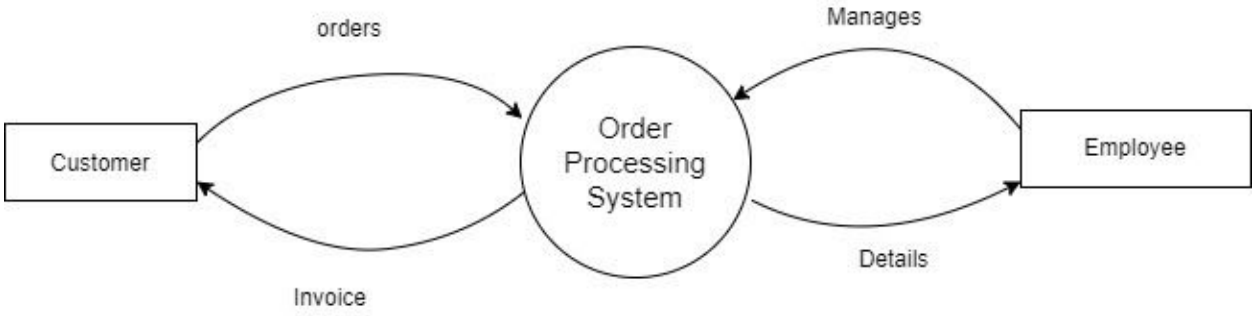
Project Planning:

The various stages of the planning, analysis and designing phase for the project is depicted below with the help of a gantt chart.

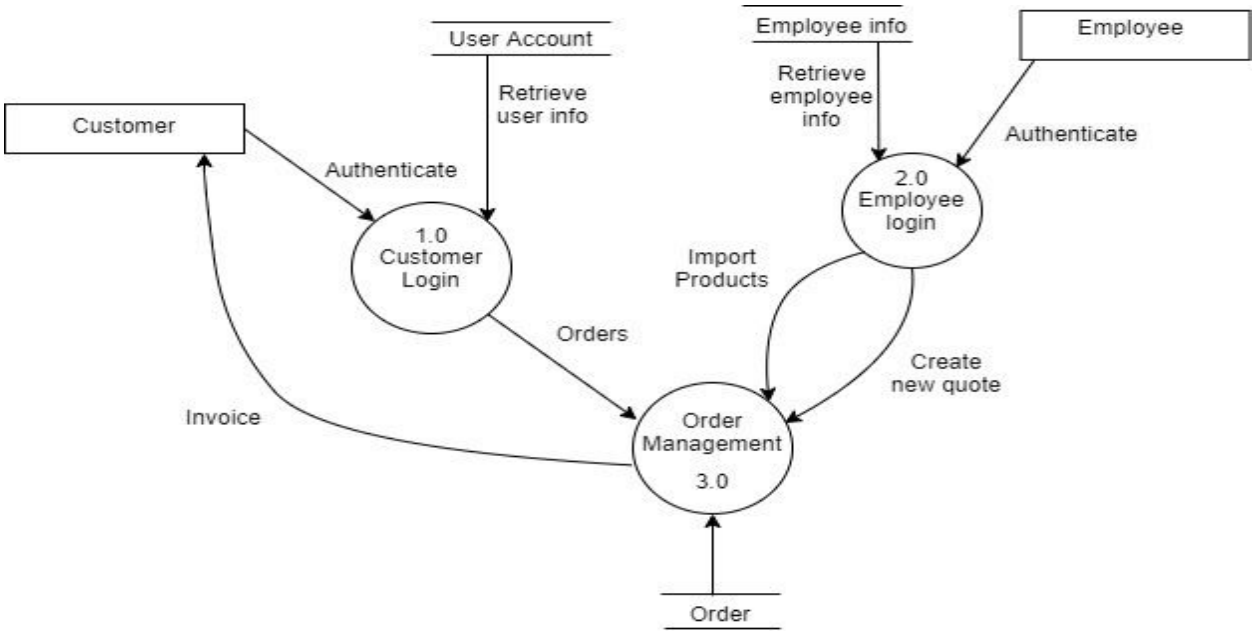


Data Flow Diagram:

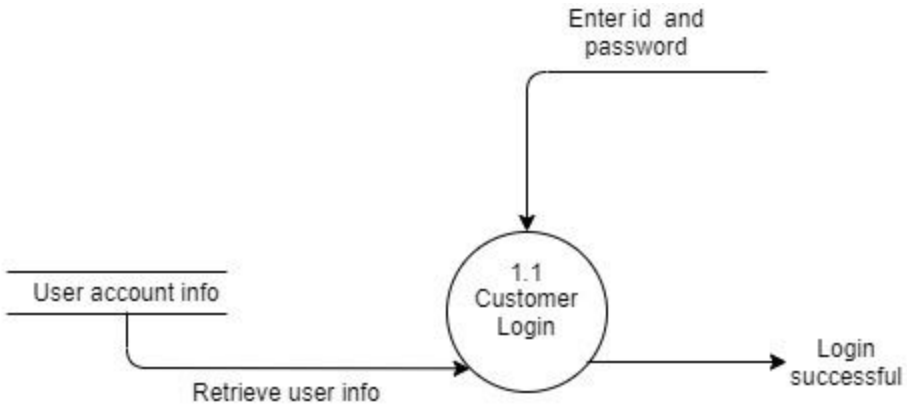
Level 0:


orders
Manages
Customer
Order Processing System
Employee
Details
Invoice

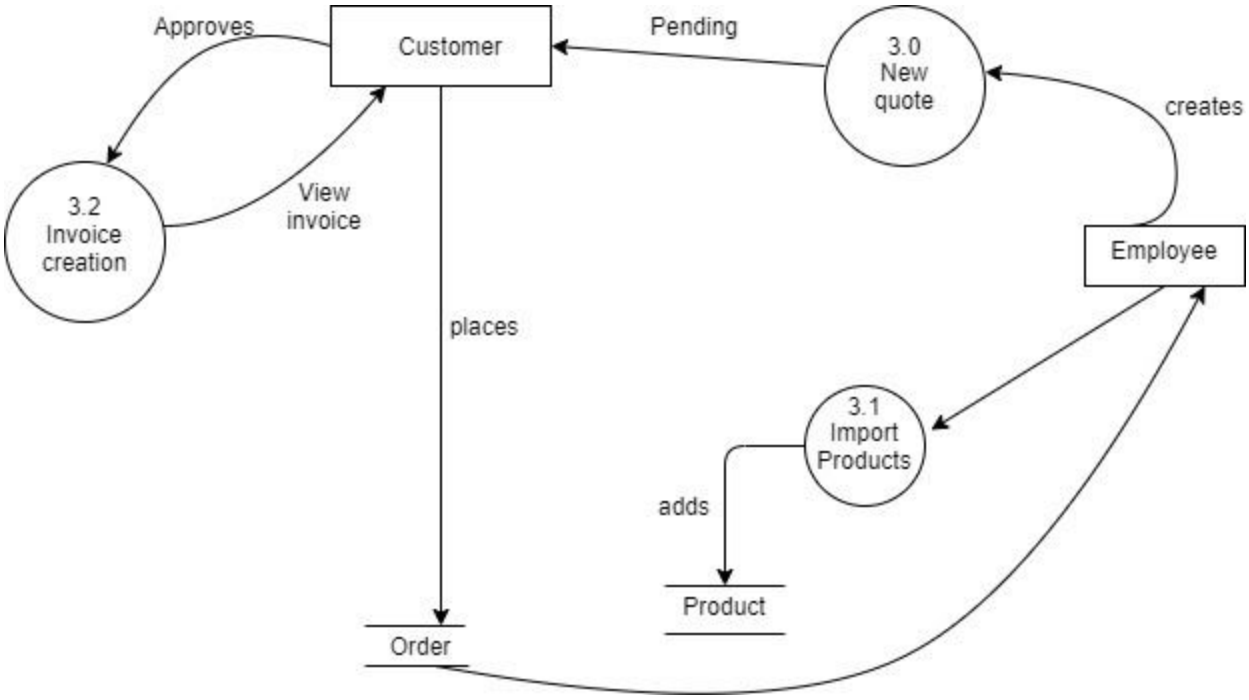
Level 1:


User Account
Employee info
Employee
Retrieve user info
Retrieve employee info
Customer
Authenticate
Authenticate
2.0 Employee login
1.0 Customer Login
Import Products
Orders
Create new quote
Invoice
Order Management 3.0
Order

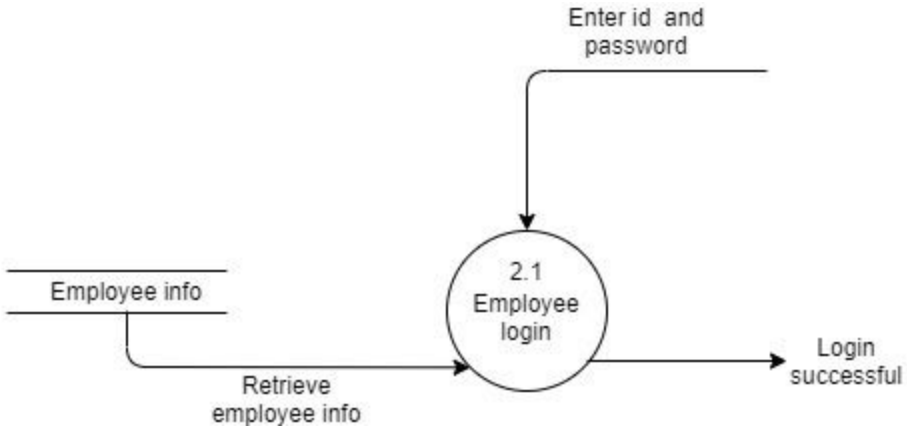
Level 2.1:



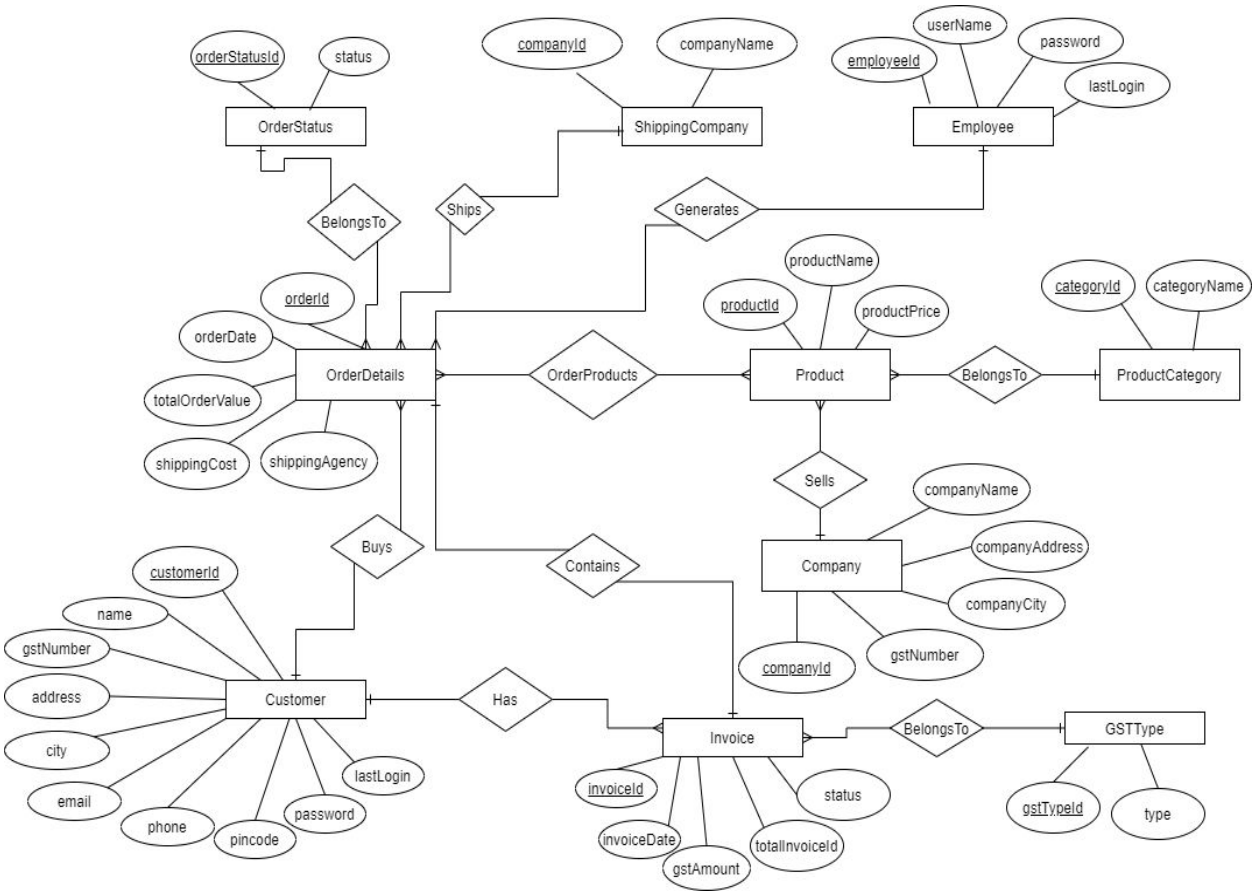
Level 2.2:



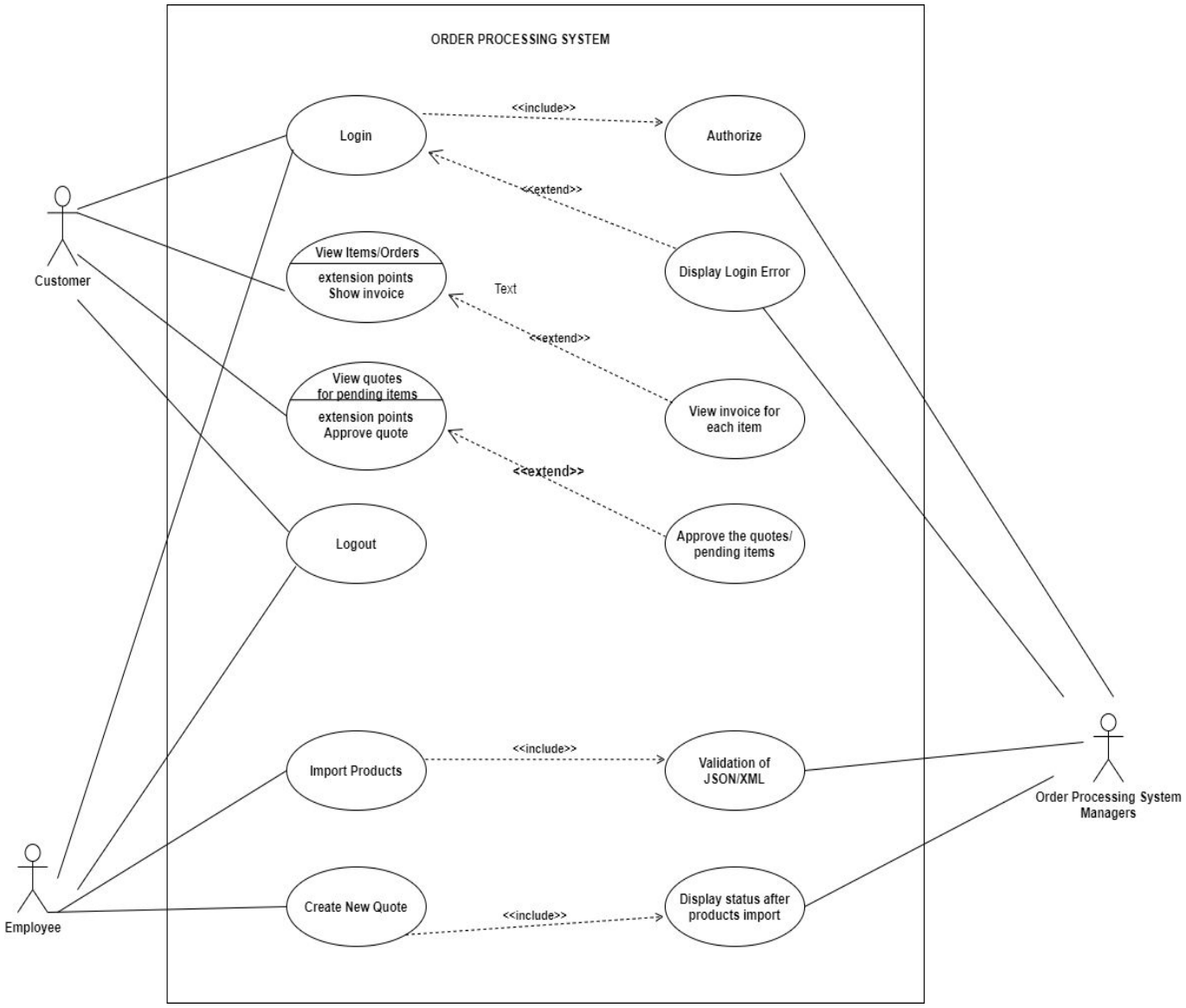
Level 2.3:


Enter id and password
Employee info
2.1 Employee login
Login successful
Retrieve employee info

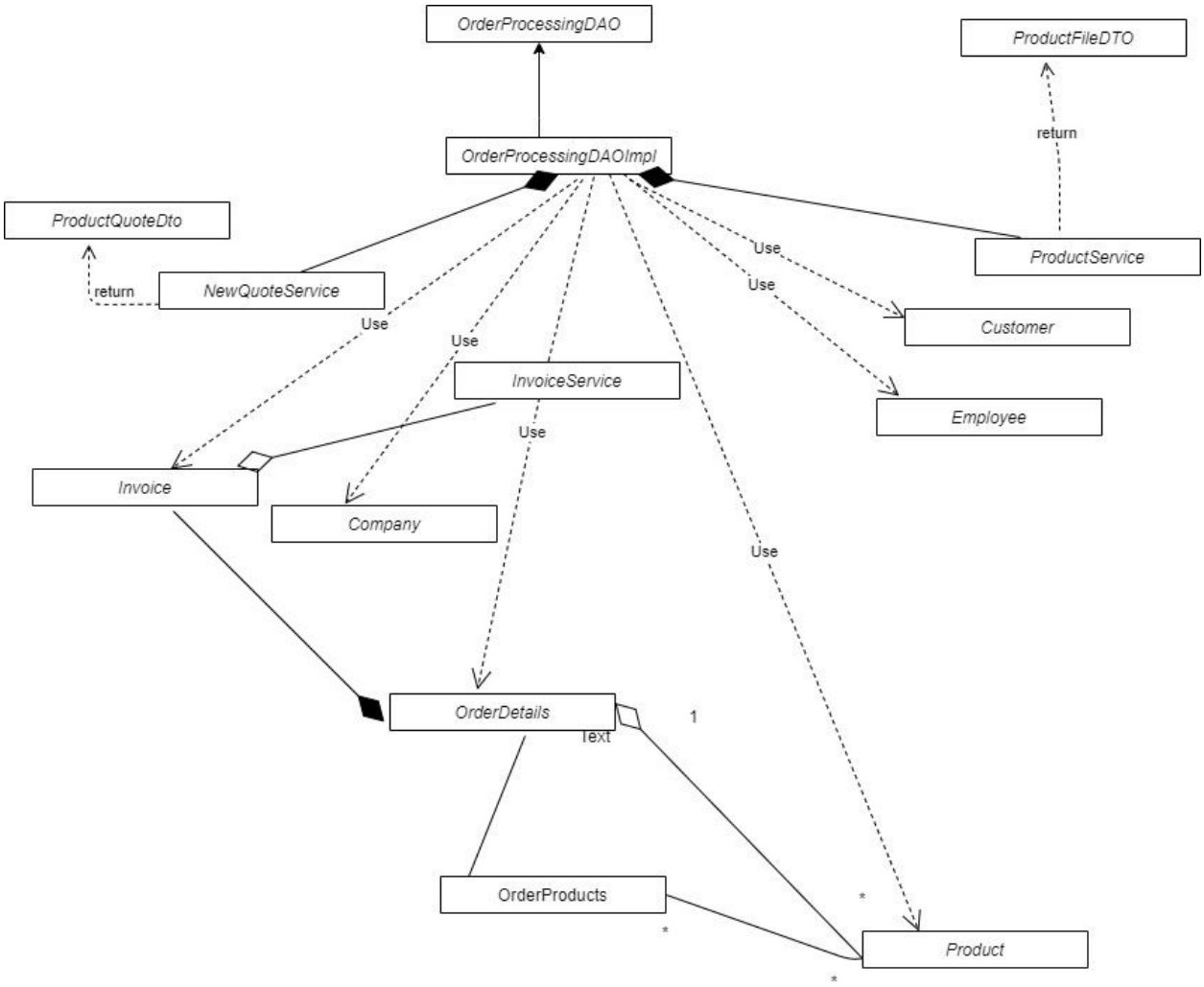
Entity Relationship Diagram:

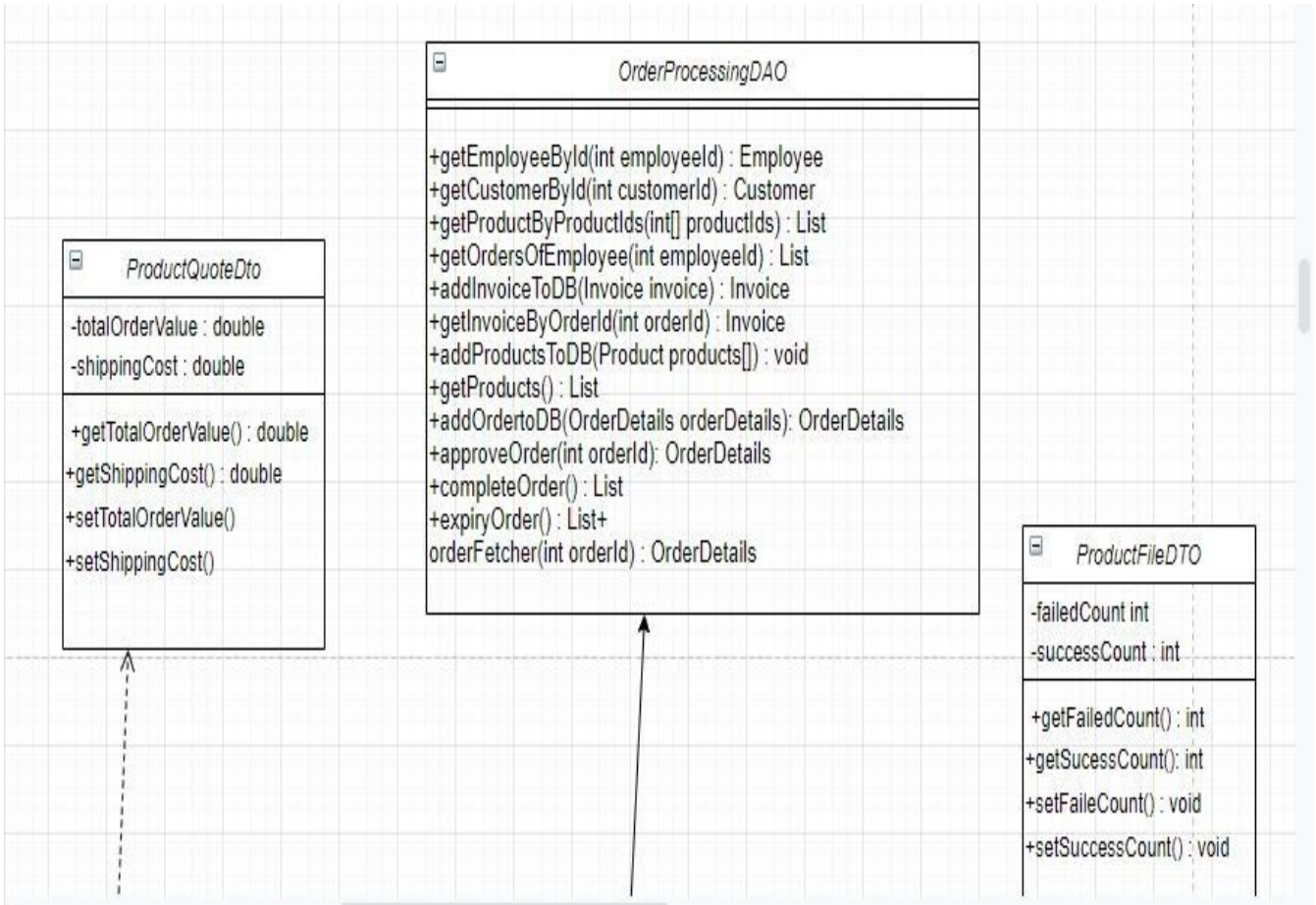


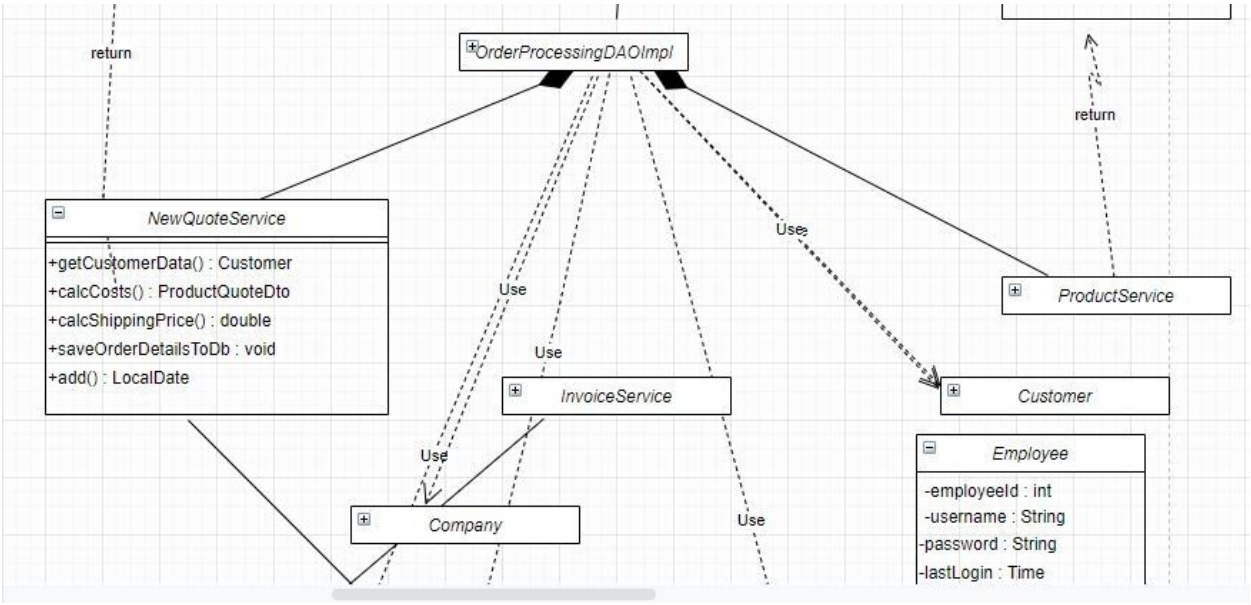
Use Case Diagram:

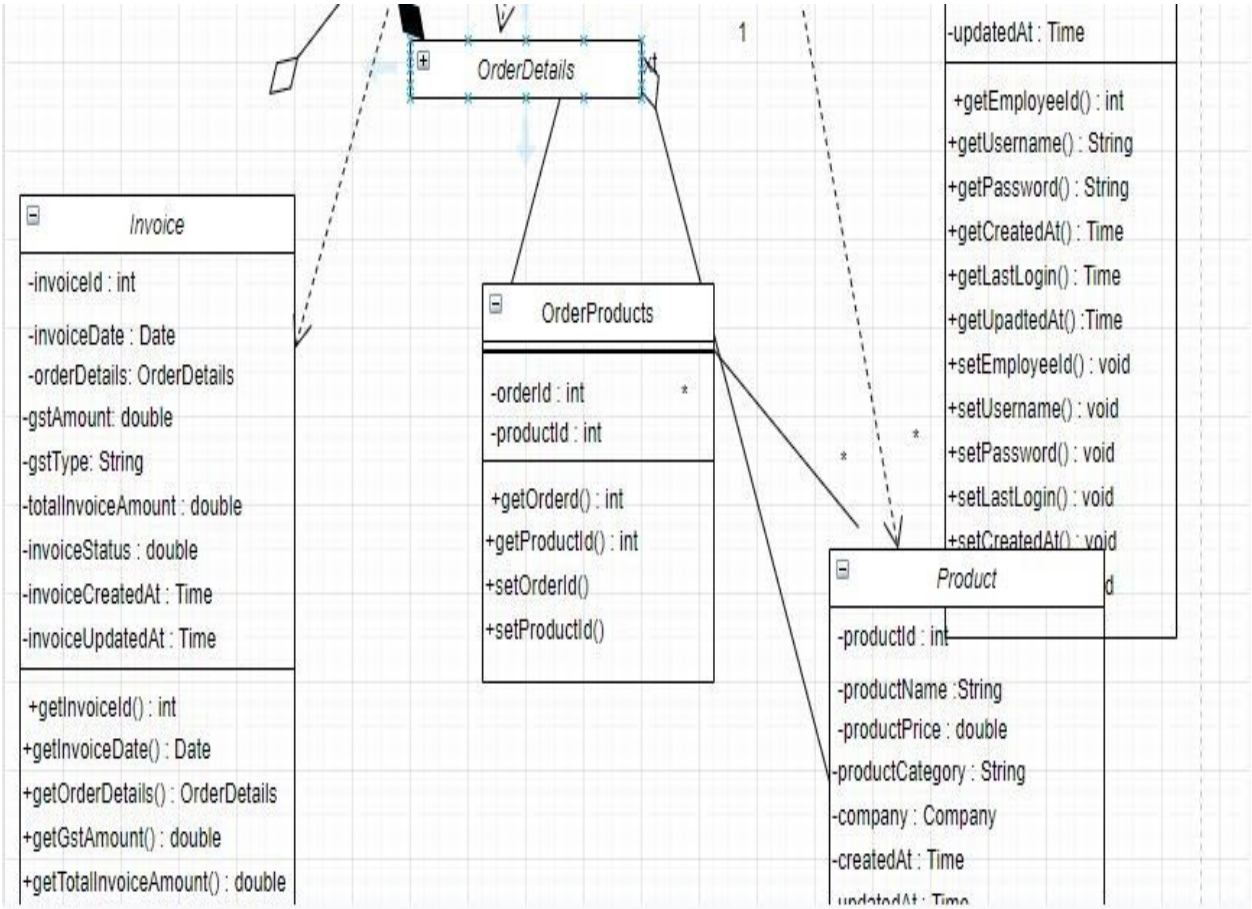


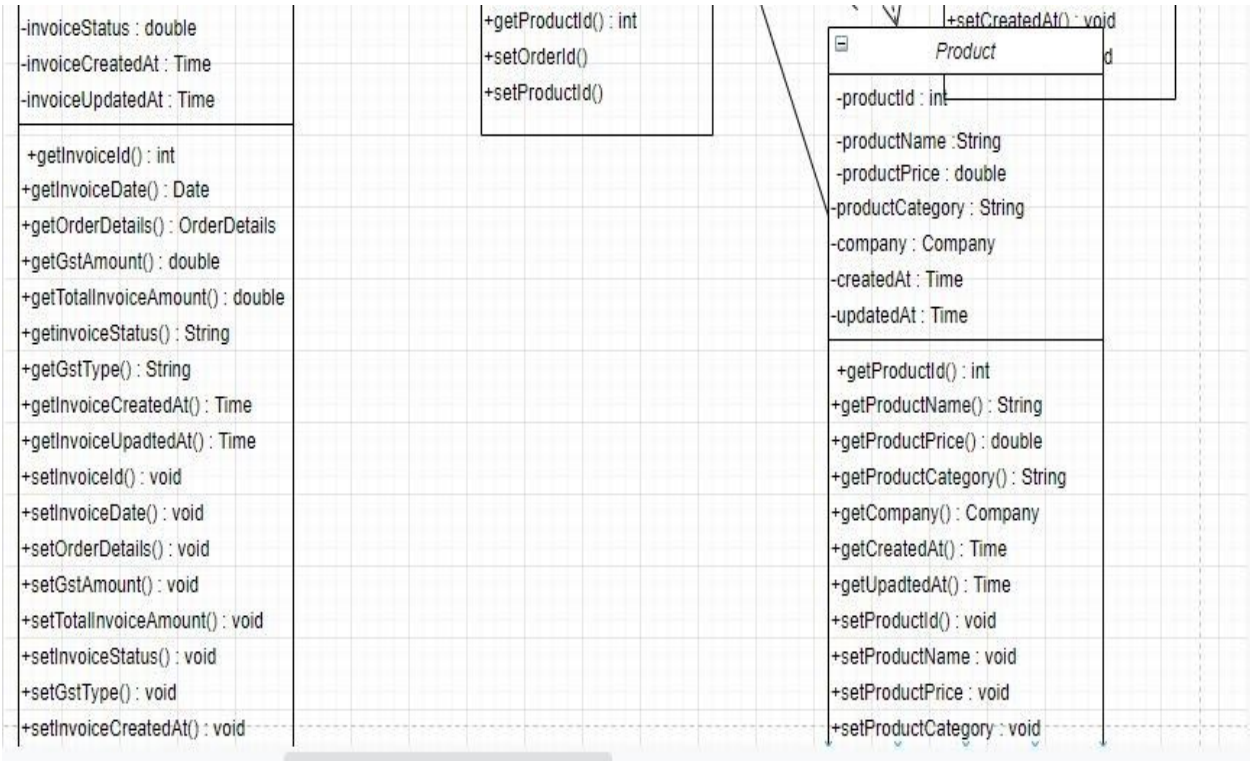
Class Diagram:



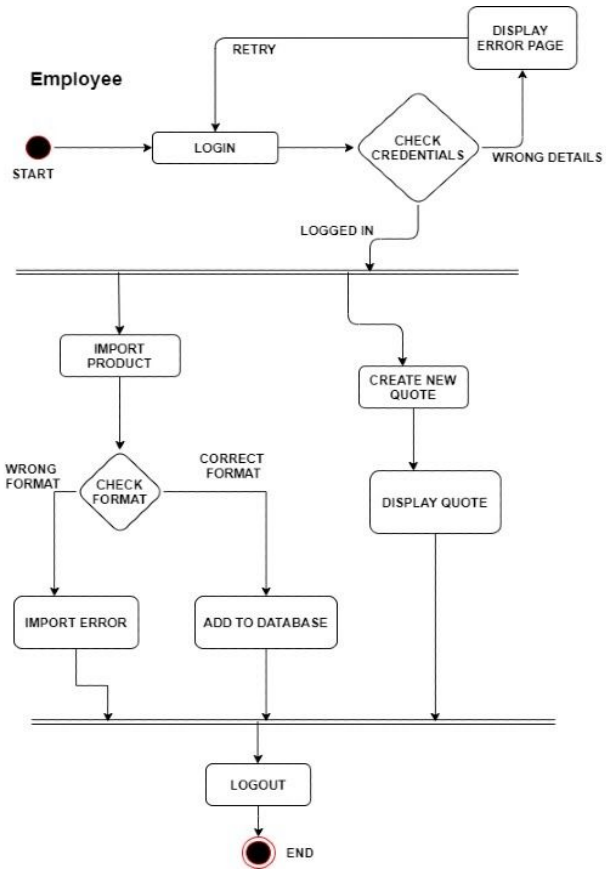

OrderProcessingDAO
+getEmployeeById(int employeeId) : Employee
+getCustomerById(int customerId) : Customer
+getProductByProductIds(int[] productIds) : List
+getOrdersOfEmployee(int employeeId) : List
+addInvoiceToDB(Invoice invoice) : Invoice
+getInvoiceByOrderId(int orderId) : Invoice
+addProductsToDB(Product products[]) : void
+getProducts() : List
+addOrdertoDB(OrderDetails orderDetails): OrderDetails
+approveOrder(int orderId): OrderDetails
+completeOrder() : List
+expiryOrder() : List+
orderFetcher(int orderId) : OrderDetails
ProductQuoteDto
-totalOrderValue : double
-shippingCost : double
+getTotalOrderValue() : double
+getShippingCost() : double
+setTotalOrderValue()
+setShippingCost()
ProductFileDTO
-failedCount int
-successCount : int
+getFailedCount() : int
+getSucessCount(): int
+setFaileCount() : void
+setSuccessCount() : void

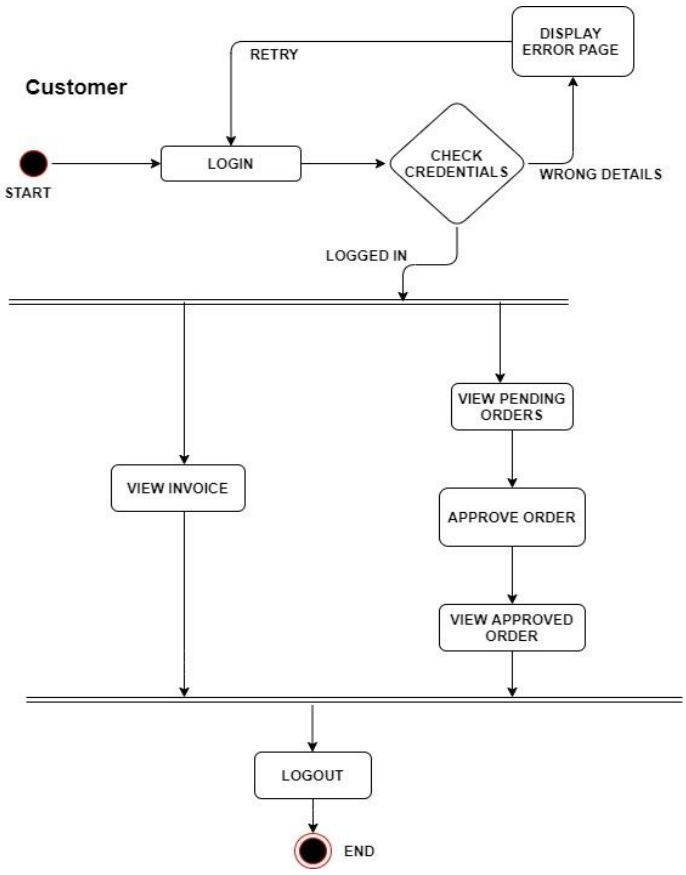

return
OrderProcessingDAOImpl
return
NewQuoteService
+getCustomerData() : Customer
+calcCosts() : ProductQuoteDto
+calcShippingPrice() : double
+saveOrderDetailsToDb : void
+add() : LocalDate
Use
Use
Use
ProductService
InvoiceService
Customer
Use
Employee
-employeeId : int
-username : String
-password : String
-lastLogin : Time
Company
Use


OrderDetails
Invoice
-invoiceId : int
-invoiceDate : Date
-orderDetails: OrderDetails
-gstAmount: double
-gstType: String
-totalInvoiceAmount : double
-invoiceStatus : double
-invoiceCreatedAt : Time
-invoiceUpdatedAt : Time
+getInvoiceId() : int
+getInvoiceDate() : Date
+getOrderDetails() : OrderDetails
+getGstAmount() : double
+getTotalInvoiceAmount() : double
OrderProducts
-orderId : int
-productId : int
+getOrderd() : int
+getProductId() : int
+setOrderId()
+setProductId()
1
*
*
-updatedAt : Time
+getEmployeeId() : int
+getUsername() : String
+getPassword() : String
+getCreatedAt() : Time
+getLastLogin() : Time
+getUpadtedAt() :Time
+setEmployeeId() : void
+setUsername() : void
+setPassword() : void
+setLastLogin() : void
Product
-productId : int
-productName :String
-productPrice : double
-productCategory : String
-company : Company
-createdAt : Time


-invoiceStatus : double
-invoiceCreatedAt : Time
-invoiceUpdatedAt : Time
+getInvoiceId() : int
+getInvoiceDate() : Date
+getOrderDetails() : OrderDetails
+getGstAmount() : double
+getTotalInvoiceAmount() : double
+getinvoiceStatus() : String
+getGstType() : String
+getInvoiceCreatedAt() : Time
+getInvoiceUpadtedAt() : Time
+setInvoiceId() : void
+setInvoiceDate() : void
+setOrderDetails() : void
+setGstAmount() : void
+setTotalInvoiceAmount() : void
+setInvoiceStatus() : void
+setGstType() : void
+setInvoiceCreatedAt() : void
+getProductId() : int
+setOrderId()
+setProductId()
+setCreatedAt() : void
Product
-productId : int
-productName :String
-productPrice : double
-productCategory : String
-company : Company
-createdAt : Time
-updatedAt : Time
+getProductId() : int
+getProductName() : String
+getProductPrice() : double
+getProductCategory() : String
+getCompany() : Company
+getCreatedAt() : Time
+getUpadtedAt() : Time
+setProductId() : void
+setProductName : void
+setProductPrice : void
+setProductCategory : void

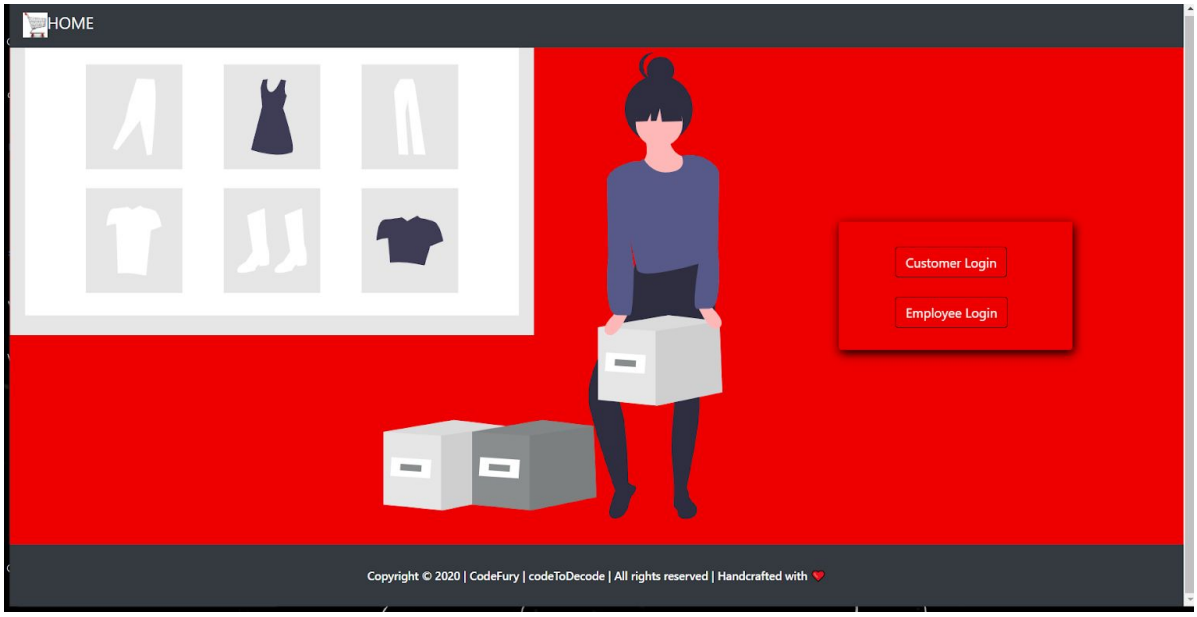
Activity Diagram:



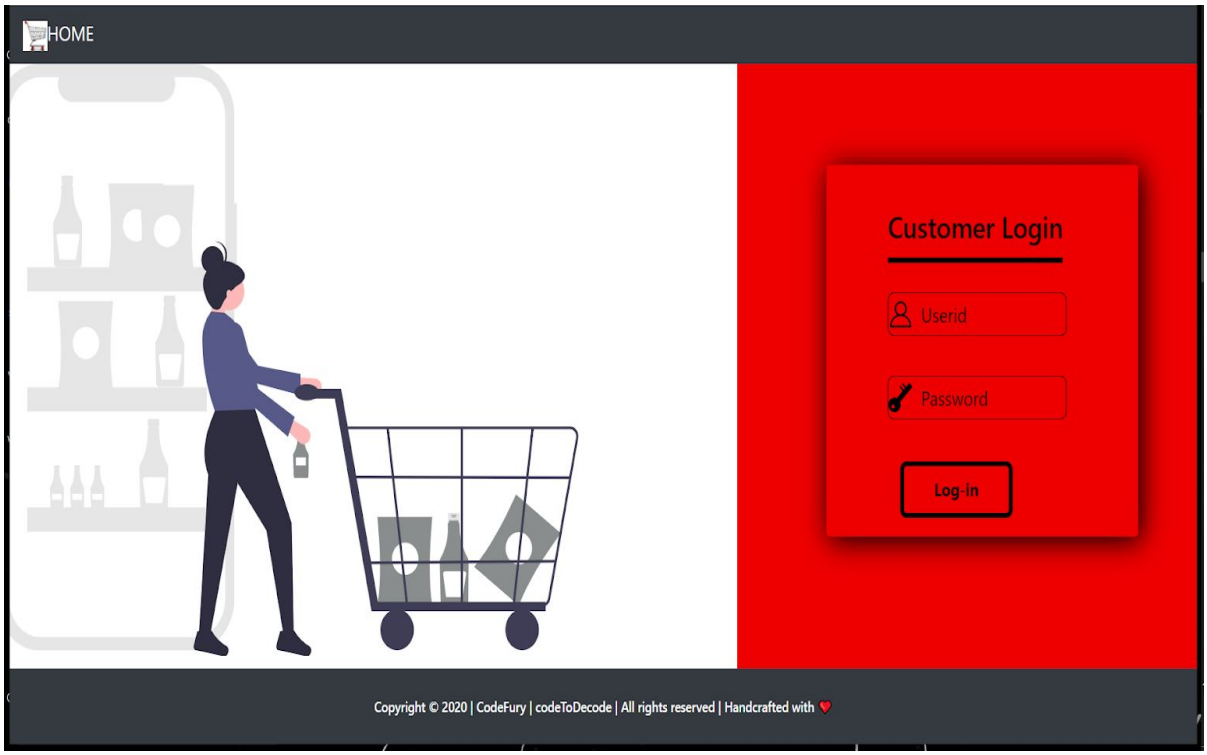
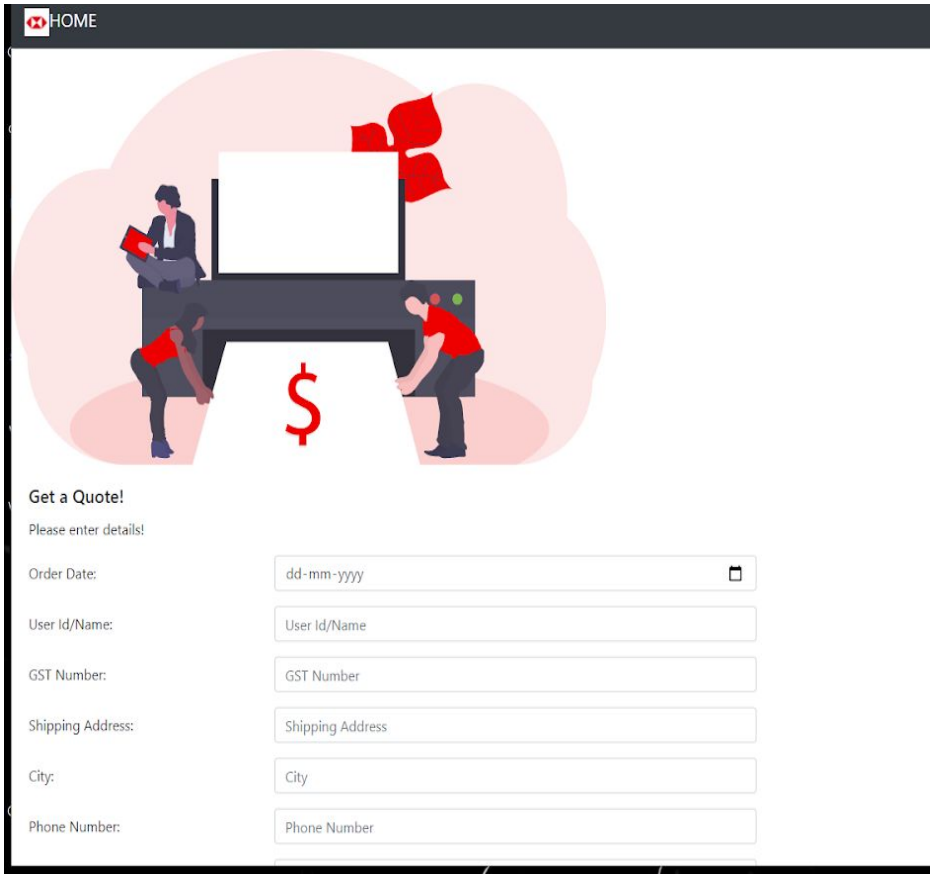


UI Snapshots:

Home Page:



Employee Page



Generate a quote page: