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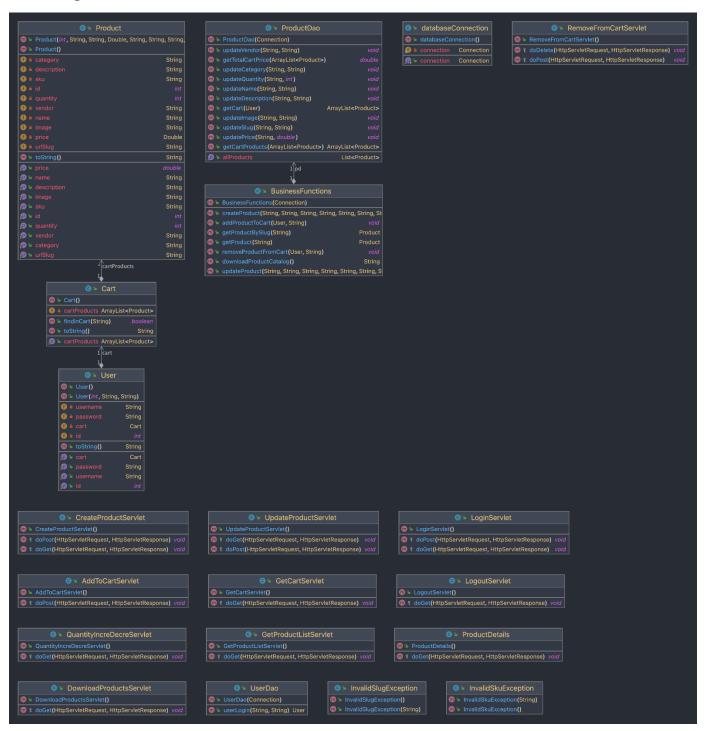**Development Environment:**

Tomcat v10.1

jdk-17.0.3.1

Eclipse 2023-09

Instructions:

To generate the .war file, proceed to Eclipse and right click the project. Navigate to Export and then select WAR file. Afterwards, make sure the project you want is selected and choose the destination for the WAR file. Then click on finish.

We also connected a database with the attached .sql dump file. The password is defaulted to 'Admin123.' But can be altered in the 'databaseConnection.java' file.

On the webpage, there are currently two users you can login as (or you can choose to not login and be an anonymous user and the website will still function accordingly). The first user is username:aaa password:aaa. They have the same functions and permissions as the anonymous user. The second user is the admin user with username:admin password:secret. This user gains access to various extra functions such as editing products, creating products, and more (all the required ones).

UML Diagram:

Product
- Product(*int*, String, String, Double, String, String, String,
- Product()
- category   String
- description   String
- sku   String
- id   *int*
- quantity   *int*
- vendor   String
- name   String
- image   String
- price   Double
- urlSlug   String
- toString()   String
- price   *double*
- name   String
- description   String
- image   String
- sku   String
- id   *int*
- quantity   *int*
- vendor   String
- category   String
- urlSlug   String

ProductDao
- ProductDao(Connection)
- updateVendor(String, String)   *void*
- getTotalCartPrice(ArrayList<Product>)   *double*
- updateCategory(String, String)   *void*
- updateQuantity(String, *int*)   *void*
- updateName(String, String)   *void*
- updateDescription(String, String)   *void*
- getCart(User)   ArrayList<Product>
- updateImage(String, String)   *void*
- updateSlug(String, String)   *void*
- updatePrice(String, *double*)   *void*
- getCartProducts(ArrayList<Product>)   ArrayList<Product>
- allProducts   List<Product>

databaseConnection
- databaseConnection()
- connection   Connection
- connection   Connection

RemoveFromCartServlet
- RemoveFromCartServlet()
- doDelete(HttpServletRequest, HttpServletResponse)   *void*
- doPost(HttpServletRequest, HttpServletResponse)   *void*

BusinessFunctions
- BusinessFunctions(Connection)
- createProduct(String, String, String, String, String, String, St
- addProductToCart(User, String)   *void*
- getProductBySlug(String)   Product
- getProduct(String)   Product
- removeProductFromCart(User, String)   *void*
- downloadProductCatalog()   String
- updateProduct(String, String, String, String, String, String, S

Cart
- Cart()
- cartProducts   ArrayList<Product>
- findInCart(String)   *boolean*
- toString()   String
- cartProducts   ArrayList<Product>

User
- User()
- User(*int*, String, String)
- username   String
- password   String
- cart   Cart
- id   *int*
- toString()   String
- cart   Cart
- password   String
- username   String
- id   *int*

CreateProductServlet
- CreateProductServlet()
- doPost(HttpServletRequest, HttpServletResponse)   *void*
- doGet(HttpServletRequest, HttpServletResponse)   *void*

UpdateProductServlet
- UpdateProductServlet()
- doGet(HttpServletRequest, HttpServletResponse)   *void*
- doPost(HttpServletRequest, HttpServletResponse)   *void*

LoginServlet
- LoginServlet()
- doPost(HttpServletRequest, HttpServletResponse)   *void*
- doGet(HttpServletRequest, HttpServletResponse)   *void*

AddToCartServlet
- AddToCartServlet()
- doPost(HttpServletRequest, HttpServletResponse)   *void*

GetCartServlet
- GetCartServlet()
- doGet(HttpServletRequest, HttpServletResponse)   *void*

LogoutServlet
- LogoutServlet()
- doGet(HttpServletRequest, HttpServletResponse)   *void*

QuantityIncreDecreServlet
- QuantityIncreDecreServlet()
- doGet(HttpServletRequest, HttpServletResponse)   *void*

GetProductListServlet
- GetProductListServlet()
- doGet(HttpServletRequest, HttpServletResponse)   *void*

ProductDetails
- ProductDetails()
- doGet(HttpServletRequest, HttpServletResponse)   *void*

DownloadProductsServlet
- DownloadProductsServlet()
- doGet(HttpServletRequest, HttpServletResponse)   *void*

UserDao
- UserDao(Connection)
- userLogin(String, String)   User

InvalidSlugException
- InvalidSlugException()
- InvalidSlugException(String)

InvalidSkuException
- InvalidSkuException(String)
- InvalidSkuException()

Bonus Marks:

- Animated javascript and css homepage

- Checkbox filter for products to sort by category