



User Class

This is the **base class** for all users of the platform. It includes both buyers and sellers.

- **Attributes (Data Members):**
 - `userId`: A unique identifier for each user.
 - `name`: The user's name.
 - `email`: The user's email address.
 - `password`: The password for login.
 - `role`: Specifies whether the user is a 'buyer' or 'seller'.
 - **Methods (Functions):**
 - `login()`: Allows the user to log into the platform.
 - `signUp()`: Allows the user to register.
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Buyer Class (*inherits from User*)

This class represents buyers who can browse and purchase products.

- **Methods:**
 - `viewProducts()`: Lets buyers browse available artistic pieces.
 - `likeProduct()`: Allows buyers to like a product.
 - `dislikeProduct()`: Allows buyers to dislike a product.
 - `addToCart()`: Adds a selected product to the cart.
 - `removeFromCart()`: Removes a product from the cart.
 - `makePayment()`: Completes a purchase by making payment.
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Seller Class (*inherits from User*)

This class represents sellers who upload and manage products.

- **Attributes:**
 - `pinCode`: A special 4-digit code required to access seller features (adds a layer of security).

- **Methods:**

- uploadProduct(): Lets sellers add new products to the marketplace.
- viewAvailableProducts(): Allows sellers to see only their own uploaded products.
- enterPinCode(): Used to verify identity before accessing seller features.

Cart Class

Used by buyers to manage their potential purchases.

- **Attributes:**

- products: A list of products currently in the cart.

- **Methods:**

- addProduct(): Adds a product to the cart.
- removeProduct(): Removes a specific product.
- clearCart(): Empties the cart entirely.

Product Class

Defines individual products listed on the shop.

- **Attributes:**

- productId: Unique identifier for each product.
- name: The name of the product.
- description: A short explanation or details about the product.
- price: The price of the product.
- sellerId: Identifies the seller who uploaded the product.
- likes: Number of likes.
- dislikes: Number of dislikes.

Order Class

Represents a completed purchase.

- **Attributes:**

- orderId: Unique identifier for the order.
- buyerId: Refers to the buyer who placed the order.
- products: List of products in the order.
- status: Current status of the order (e.g., "Processing", "Shipped", etc.).

- **Methods:**

- updateStatus(): Allows the order status to be updated through various stages.