ShirtShop
+start(_stage: Stage): void (throws Exception)

```
Address
-addressID: int
-userID: int
-addressType: String
-street1: String
-street2: String
-city: String
-state: String
-zip: String
-action: SQLQueryActions
+Address()
+Address(_addressID: int, _userID: int, _addressType: String, _street1: String,
_street2: String, _city: String, _state: String, _zip: String): void
+getAddressID(): int
+getAddressType(): String
+getCity(): String
+getState(): String
+getStreet1(): String
+getStreet2(): String
+getUserID(): int
+getZip(): String
+setAddressID( newAddressID: int): void
+setAddressType(_newAddressType: String): void
+setCity(_newCity: String): void
+setState(_newState: String): void
+setStreet1(_newStreet1: String): void
+setStreet2(_newStreet2: String): void
+setUserID(_newUserID: int): void
+setZip(_newZip: String): void
+checkPreviousAddress( userID: int): List<Address> throws SQLException
+saveNewAddress(_userID: int, _addressType: String, _street1: String,
_street2: String, _city: String, _state: String, _zip: String): boolean throws
SQLException
```

```
Cart
-cartID: int
-userID: int
-product: Product
-amount: int
-image: Image
-includesImage: boolean
-imageFilePath: String
-dateCreated: Date
-currentCart: Cart
-action: SQLQueryActions
+Cart()
+Cart(_cartID: int, _userID: int, _product: Product, _amount: int, _image: Image,
_includesImage: boolean): void
+Cart(_product: Product, _amount: int, _image: Image): void
+getAmount(): int
+getCartID(): int
+getCurrentCart(): Cart
+getDateCreated(): Date
+getImage(): Image
+getImageFilePath(): String
+includesImage(): boolean
+isCreated(): boolean
+getUserID(): int
+setAmount(_newAmount: int): void
+setCartID( newCartID: int): void
+setCurrentCart(_newCurrentCart: Cart): void
+setDateCreated(_newDate: Date): void
+setImage(_newImage: Image): void
+setImageFilePath( newImageFilePath: String): void
+setIncludesImage(_newIncludesImage: boolean): void
+setUserID( newUserID: int): void
+setProduct(_newProduct: Product): void
+addNewItem(_userID: int, _product: Product, _amount: int, _image: Image): boolean
+finalize( userID: int, orderID: int): boolean
+removeItem(_userID: int): boolean
+removeItem(_userID: int, cartID: int): boolean
+saveImageToDatabase(_filePath: String): void
+saveToFile(_userID: int, _image: Image): String
+toString(): String
+viewCart( userID: int): List<Cart>
```

М	essa	ge	Box

+infoBox(_infoMessage: String, _titleBar: String): void

```
Order
-orderID: int
-userID: int
-cart: Cart
-orderPrice: double
-shippingPrice: double
-addressID: int
-dateCreated: Date
-action: SQLQueryActions
+Order()
+Order( userID: int, cart: Cart, orderPrice: double,
_shippingPrice: double, _addressID: int, _dateCreated: Date): void
+Order( cart: Cart): void
+getAddressID(): int
+getCart(): Cart
+getCurrentOrder(): Order
+getDateCreated(): Date
+getOrderID(): int
+getOrderPrice(): double
+getShippingPrice(): double
+setAddressID( newAddressID: int): void
+setCart( newCart: Cart): void
+setCurrentOrder( newOrder: Order): void
+setDateCreated(_newDateCreated: Date): void
+setOrderID( newOrderID: int): void
+setOrderPrice( newOrderPrice: double): void
+setShippingPrice( newShippingPrice: double): void
+setUserID(_newUserID: int): void
+addNewItem(_userID: int, _orderPrice: double, _shippingPrice: double,
_addressID: int): boolean
+identifyOrderID( userID: int): int
```

Product

-clothingType: int

-size: int-color: String-price: double

-currentProduct: Product

+Product()

+Product(_clothingType: int, _size: int, _color: String, _price: double): void

+getClothingType(): int

+getColor(): String

+getCurrentProduct(): Product

+getPrice(): double

+getSize(): int

+setClothingType(_newClothingType: int): void

+setColor(_newColor: String): void

+setCurrentProduct(_newProduct: Product): void

+setPrice(_newPrice: double): void

+setSize(_newSize: int): void

+toString(): String

Rate

-gate: String-standard: String

-rush: String

+Rate(_gate: String, _standard: String, _rush: String): void

+getGate(): String

+getStandard(): String

+getRush(): String
+toString(): String

TableList

-color: SimpleStringProperty-price: SimpleDoubleProperty-quantity: SimpleIntegerProperty

-type: SimpleStringProperty-size: SimpleStringProperty

-includesImage: SimpleBooleanProperty

+TableList(_type: String, _size: String, _color: String, _price: double,

_quantity: int, _includesImage: boolean): void

+getColor(): String

+getIncludesImage(): boolean

+getPrice(): double
+getQuantity(): int
+getSize(): String
+getType(): String

+isIncludesImage(): boolean

+getTableList(): ObservableList<TableList>

SQLQueryActions

+deleteObject(_table: String, _limitors: Map<String, String>): boolean +insertObject(_table: String, _valuePairs: Map<String, String>): boolean

+selectObjectBasic(_tables: String[], _columns: String[],

_limitors: Map<String, String>, _orderBy: String[]): ResultSet

+updateObject(_table: String, _valuePairs Map<String, String>,

_limitors: Map<String, String>): boolean

+executionQuery(_sqlQuery: String): boolean
+selectQuery(_sqlQuery: String): ResultSet

Common

+STANDARD_HGAP: int

+STANDARD_VGAP: int

+DISPLAY_WIDTH: double

+DISPLAY_HEIGHT: double

+MAX_IMAGE_SIZE: int

+COMPANY_FONT_SIZE: int

+MED_BUTTON_WIDTH: int

+LARGE_BUTTON_WIDTH: int

+STANDARD_INSETS: Insets

Tools

+calculateItemWeight(_clothingType: int, _clothingSize: int): double

+calculateWeight(_clothingType: int, _clothingSize: int): double

+emailOrderConfirmation(_orderDetails: String): void

+emailUs(): void

+verifyEmailFormat(_email: String): boolean +verifyPhoneFormat(_phone: String): boolean

AddressController

+checkPreviousAddress(_userID: int): Address throws SQLException

+registerNewAddress(_userID: String, _addressType: String, _street1: String,

_street2: String, _city: String, _state: String, _zip: String): boolean throw SQLException

CartController

+addToCart(_ID: int, _product: Product, _amount: int, _image: Image): boolean

+clearCart(_userID: int): boolean

+finalize(_userID: int, _orderID: int): boolean

+finalizeOrder(_userID: int): boolean

+removeFromCart(_userID: int, _cartID: int): boolean

+viewCart(_userID: int): List<Cart>

OrderController

+finalizeOrder(_userID: int, _orderPrice: double, _shippingPrice: double,

_addressID: int): boolean

+identifyOrderID(_userID: int): int

ShippingController

+getRushShipping(): double+resetRushShipping(): void+updateShippingCosts(): double

UserController

+loginUser(_username: String, _password: String): User

+registration(_username: String, _password: String, _repeatPassword: String,

_fullName: String, _email: String, _phoneNum: String): boolean

AlertBox

+display(_alertType: AlertType, _message: String, _header: String,

_title: String): void

+display(_message: String, _title: String): void

+display(_ex: Exception): void
+displayExitWarning(): boolean

CartMenu

~shippingAmount: Text ~subTotalAmount: Text ~grandTotalAmount: Text

+buildOrderDetails(_orderID: int): String

+displayCart(): void

+helpBuildTotals(_subTotalAmount: Text, _shippingAmount: Text,

_grandTotalAmount: Text): GridPane +parseCurrency(_text: String): double

+updateShippingAmount(): void

${\bf Change Address Menu}$

+displaySetAddress(_user: User): void throws SQLException, ParseException +validate(_userID: String, _addressType: String, _street1: String, _street2: String,

_city: String, _state: String, _zip: String): boolean throws SQLException

CreateAccountMenu

+displayCreateAccount(): void

	LogInMenu	
+displayLoginMenu(): void		

MainMenu

-mainStage: Stage-userText: Text

+displayMainMenu(_stage: Stage): void+helpBuildBackground(): StackPane

+helpBuildBottomButton(_text: String, _size: int, _tooltip: String,

_color: String): Button

+helpBuildCompanyBanner(): HBox

+helpBuildInformation(): HBox

+helpBuildLoggedInAs(_userText: Text): Hbox

+getMainMenuX(): double
+getMainMenuY(): double

+terminate(): void

+updateUserStatus(): void

ShippingMenu

-rushOption: double

+displayShippingMenu(): void+getRushOption(): double+resetRushOption(): void

```
ShopMenu
-clothingChosen: int
-sizeChosen: int
-colorChosen: String
-quantityChosen: int
-priceChosen: double
-imageChosen: Image
-logo: ImageView
-unitPrice: Text
-totalPrice: Text
-path: SVGPath
-back: SVGPath
+addImage(): Image (throws Exception)
+applyColor(_color: Paint): void
+buildPath(): SVGPath
+displayShopping(): void
+helpBuildClothingButton(_text: String, _filename: String): Button
+helpBuildClothingGrid(): GridPane
+helpBuildGridColors( colorOption: Color[]): GridPane
+helpBuildInstructionSteps(_number: String, _description: String): Group
+helpBuildPrices(_price: double): Text
+helpBuildShirtBorder(): Rectangle
+helpBuildSizeComboBox(): ComboBox<String>
+resetShopMenu( sizeComboBox: ComboBox<String>, quantityBox: TextField,
filePath: Text): void
+updateChoice(_choice: int): void
```

+getSizeName(_type: int): String

ClothingUtility +SIZE_NAMES[]: String +AVAILABLE COLORS[]: Color +COLOR_NAMES[]: String +ROW_COUNT: int +COLUMN COUNT: int +TANK_TOP_PATH: String +SHORT_SHIRT_PATH: String +LONG_SHIRT_PATH: String +SWEATSHIRT_PATH: String +HOODIE_PATH: String +TANK_TOP_BACKPATH: String +SHORT SHIRT BACKPATH: String +LONG SHIRT BACKPATH: String +SWEATSHIRT_BACKPATH: String +HOODIE_BACKPATH: String +TANK_TOP_PRICE: double +SHORT_SHIRT_PRICE: double +LONG_SHIRT_PRICE: double +SWEATSHIRT PRICE: double +HOODIE_PRICE: double +TANK TOP: int +SHORT_SHIRT: int +LONG_SHIRT: int +SWEATSHIRT: int +HOODIE: int +TANK_TOP_BASE: double +SHORT_SHIRT_BASE: double +LONG_SHIRT_BASE: double +SWEATSHIRT_BASE: double +HOODIE BASE: double +TANK_TOP_UPSIZE: double +SHORT_SHIRT_UPSIZE: double +LONG_SHIRT_UPSIZE: double +SWEATSHIRT_UPSIZE: double +HOODIE UPSIZE: double +SMALL: int +MEDIUM: int +LARGE: int +LARGE_TALL: int +XL: int +XL_TALL: int +XXL: int +XB: int +convertClothingType(_size: String): int +getColorDescription(color: String): String +getDescrtiption(type: int): String

```
User
-userID: int
-fullName: String
-email: String
-phoneNum: String
-cardNum: String
-cvc: String
-username: String
-password: String
-accessType: String
-dateCreated: Date
-lastAccessed: Date
-currentUser: User
-action: SQLQueryActions
+User()
+User(_userID: int, fullName: String, _email: String, _phoneNum: String,
_cardNum: String, _cvc: String, _username: String, _password: String, _accessType: String,
dateCreated: Date, lastAccessed: Date): void
+User( _username: String, _password: String): void
+User( _username: String, _password: String, _email: String): void
+getAccessType(): String
+getCard(): String
+getCurrentUser(): User
+getCVC(): String
+getDateCreated(): Date
+getEmail(): String
+getFullName(): String
+getIDNum(): int
+getLastAccessed(): Date
+getPassword(): String
+getPhone(): String
+setUserID(_newUserID: int): void
+getUsername(): String
+isLoggedIn(): boolean
+setAccessType(_newAccessType: String): void
+setCard(_newCard: String): void
+setCurrentUser( newCurrentUser: User): void
+setCVC(_newCVC: String): void
+setDateCreated(_newDateCreated: Date): void
+setEmail( newEmail: String): void
+setFullName(_newFullName: String): void
+setIDNum( newUserID: int): void
+setLastAccessed( newLastAccessed: Date): void
+setPassword(_newPassword: String): void
+setPhone( newPhone: String): void
+setUsername( newUsername: String): void
+saveNewUser(_username: String, _password: String, _email: String,
phone: String, dateCreated: Date): boolean
+userExists(_username: String): boolean
+userExists(_username: String, _password: String): boolean
+validateRegistrationData( username: String, password: String,
 repeatPassword: String, _email: String, _phone: String): boolean
```