Order

- orderNo: int
- nextOrderNo: int
- orderDate: LocalDate
- customerName: String
- state: State
- product: Product
- area: BigDecimal
- materialCost: BigDecimal
- laborCost: BigDecimal
- tax: BigDecimal
- total: BigDecimal
- + Order(LocalDate: date, customerName: String, state: State, product: Product, area: BigDecimal)
- + getNextOrderNo(): int
- + setNextOrderNo(int): void
- + aetOrderNo(): int
- + getOrderDate(): LocalDate
- + getCustomerName(): String
- + getState(): State
- + getProduct(): Product
- + getArea(): BigDecimal
- + getMaterialCost(): BigDecimal
- + getLabourCost(): BigDecimal
- + getTax(): BigDecimal + getTotal(): BigDecimal
- + setOrderNo(): void
- + setOrderNo(int: orderNo): void + setOrderDate(LocalDate: date): void
- + setCustomerName(String: name): void
- + setState(State: state): void
- + setProduct(Product product): Product
- + setArea(BigDecimal): void
- + setMaterialCost(BigDecimal): void
- + setLabourCost(BigDecimal): void
- + setTax(BigDecimal): void
- + setTotal(BigDecimal): void
- + calculateDerivedFields(): void

Product

- productType: String
- costPerSquareFoot: BigDecimal
- labourCostPerSquareFoot: BigDecimal
- + Product(productType: String, costPerSquareFoot: BigDecimal. labourCostPerSquareFoot: BigDecimal)
- + getProductType(): String
- + getCostPerSquareFoot(): BigDecimal
- + getLabourCostPerSquareFoot(): BigDecimal
- + toString(): String

State

- stateAbbrev: String stateName: String
- taxRate: BigDecimal
- + State(stateAbbrev: String, stateName: String, taxRate: BigDecimal)
- + getStateAbbrev(): String
- + getTaxRate(): BigDecimal

OrderService

- orderDao: OrderDao
- + getOrdersForDate(date: LocalDate): List<Order>
- + getOrder(date: LocalDate, orderNo: int): Order
- + createOrder(newOrder: Order): void
- + updateOrder(updatedOrder: Order): void
- + deleteOrder(orderToDelete: Order): void

«interface» OrderDao

- + getOrdersForDate(date: LocalDate): List<Order>
- + getOrder(date: LocalDate, orderNo: int):
- + createOrder(newOrder: Order): void
- + updateOrder(updatedOrder: Order): void
- + deleteOrder(orderToDelete: Order): void



OrderDaoFileImpl

- ordersFilePath: String
- nextOrderNoFileName: String
- ordersFileNamePrefix: String
- + getOrdersForDate(date: LocalDate): List<Order>
- + getOrder(date: LocalDate, orderNo: int): Order
- + createOrder(newOrder: Order): void
- + updateOrder(updatedOrder: Order): void
- + deleteOrder(orderToDelete: Order): void
- loadNextOrderNo(): void
- saveOrders(orders: List<Order>, date:

LocalDate): void

OrderController orderService: OrderService productService: ProductService

- + run(): void
- displayOrders(): void

view: OrderView

stateService: StateService

- addNewOrder(): void
- editOrder(): void
- removeOrder(): void
- getOrder(): Order
- getOrderDetails(): Order
- getOrderDetailsForUpdate(updatedOrder: Order): void



ProductService

- productDao: ProductDao
- + getProducts(): List<Product>
- + findProduct(productType: String): Product



- + aetProducts(): List<Product>
- + getProductByProductType(productType:

ProductDao

String): Product



ProductDaoFileImpl

- productsFilePath: String
- + getProducts(): List<Product>
- + getProductByProductType(productType: String): Product

StateService

- stateDao: StateDao
- + findState(stateAbbrev: String): State



«interface» StateDao

- + getStates(): List<Product>
- + getStateByAbbrev(stateAbbrev: String): State

StateDaoFileImpl

- taxesFilePath: String
- + getStates(): List<Product>
- + getStateByAbbrev(stateAbbrev: String): State

«interface» OrderView

- + displayMenu(): void
- + displayOrders(orders: List<Orders>): void
- + displayOrder(order: Order): void
- + displayProducts(products: List<Product>): void
- + getInput(input: String): String
- + getInput(prompt: String, validator: Predicate<String>,
- converter: Function<String, T>): T
- + getInputForUpdate(prompt: String, currData: String): String + getInputForUpdate(prompt: String, currData: String, validator:
- Predicate<String>, converter: Function<String, T>): T
- + print(text: String): void



OrderViewConsoleImpl

- sc: Scanner
- + displayMenu(): void
- + displayOrders(orders: List<Orders>): void
- + displayOrder(order: Order): void
- + displayProducts(products: List<Product>): void
- + getInput(input: String): String
- + getInput(prompt: String, validator: Predicate<String>, converter: Function<String, T>): T
- + getInputForUpdate(prompt: String, currData: String): String
- + getInputForUpdate(prompt: String, currData: String, validator:
- Predicate<String>, converter: Function<String, T>): T + print(text: String): void