Bangla Academy - Book Stock Management System

Participants: Customer, FacebookPage, StockManagement, ProductionStock, PhysicalOutlet, BookFair, FinancialSystem, DiscountModule

Note: Books kept in production stock

alt [Order from Facebook]
- Customer → FacebookPage: Place book order
- FacebookPage → StockManagement: Process order request
- StockManagement → ProductionStock: Check availability
- ProductionStock ⇢ StockManagement: Confirm availability
- StockManagement → DiscountModule: Check applicable discount
- DiscountModule ⇢ StockManagement: Return discount details
- StockManagement → ProductionStock: Deduct from stock
- ProductionStock ⇢ StockManagement: Stock updated
- StockManagement → FinancialSystem: Record transaction
- FinancialSystem ⇢ StockManagement: Transaction recorded
- StockManagement → FacebookPage: Confirm order and delivery
- FacebookPage → Customer: Deliver books

alt [Physical outlet sale]
- Customer → PhysicalOutlet: Visit and purchase books
- PhysicalOutlet → ProductionStock: Request books
- ProductionStock ⇢ PhysicalOutlet: Transfer books
- PhysicalOutlet → DiscountModule: Apply member discount
- DiscountModule ⇢ PhysicalOutlet: Discount applied
- PhysicalOutlet → FinancialSystem: Record sale
- FinancialSystem ⇢ PhysicalOutlet: Sale recorded
- PhysicalOutlet → Customer: Complete sale

alt [Book fair]
- BookFair → ProductionStock: Request books for fair
- ProductionStock → StockManagement: Transfer books to fair
- StockManagement ⇢ ProductionStock: Books transferred
- ProductionStock → BookFair: Deliver books

loop [During fair]
- Customer → BookFair: Purchase books
- BookFair → DiscountModule: Apply fair discount
- DiscountModule ⇢ BookFair: Discount applied
- BookFair → FinancialSystem: Record sale
- FinancialSystem ⇢ BookFair: Sale recorded
- BookFair → Customer: Complete purchase

Note: Fair ends
- BookFair → StockManagement: Return unsold books
- StockManagement → ProductionStock: Add returned books to stock
- ProductionStock ⇢ StockManagement: Stock updated
- StockManagement → FinancialSystem: Reconcile fair transactions
- FinancialSystem ⇢ StockManagement: Reconciliation complete
- StockManagement → BookFair: Confirm reconciliation

Note: Real-time stock and financial tracking ensures transparency