RFID Jewelry Inventory System - Complete Table Structure Documentation

1. USER MANAGEMENT & AUTHENTICATION TABLES

1.1 tblUser (Master Database)

- UserId (INT, PK, Identity)

- UserName (NVARCHAR(100), UK)

- Email (NVARCHAR(100), UK)

- PasswordHash (NVARCHAR(255))

- FullName (NVARCHAR(150))

- MobileNumber (NVARCHAR(20))

- FaxNumber (NVARCHAR(50))

- City (NVARCHAR(100))

- Address (NVARCHAR(255))

- OrganisationName (NVARCHAR(150))

- ShowroomType (NVARCHAR(100))

- ClientCode (NVARCHAR(50), UK)

- DatabaseName (NVARCHAR(255))

- ConnectionString (NVARCHAR(500))

- IsActive (BIT)

- CreatedOn (DATETIME2)

1.2 tblRole (Master Database)

- RoleId (INT, PK, Identity)

- RoleName (NVARCHAR(100), UK)

- Description (NVARCHAR(255))

1.3 tblUserRole (Master Database)

- UserRoleId (INT, PK, Identity)

- UserId (INT, FK)

- RoleId (INT, FK)

1.4 tblPermission (Master Database)

- PermissionId (INT, PK, Identity)

- RoleId (INT, FK)

- PageName (NVARCHAR(100))

- CanView (BIT)

- CanEdit (BIT)

- CanDelete (BIT)

2. MASTER DATA TABLES (Client Database)

2.1 tblCategoryMaster

- CategoryId (INT, PK, Identity)

- CategoryName (NVARCHAR(100), UK)

2.2 tblProductMaster

- ProductId (INT, PK, Identity)

- ProductName (NVARCHAR(100), UK)

2.3 tblDesignMaster

- DesignId (INT, PK, Identity)

- DesignName (NVARCHAR(100), UK)

2.4 tblPurityMaster

- PurityId (INT, PK, Identity)

- PurityName (NVARCHAR(100), UK)

2.5 tblBranchMaster

- BranchId (INT, PK, Identity)

- BranchName (NVARCHAR(100), UK)

- ClientCode (NVARCHAR(50))

2.6 tblCounterMaster

- CounterId (INT, PK, Identity)

- CounterName (NVARCHAR(100), UK)

- BranchId (INT, FK)

- ClientCode (NVARCHAR(50))

2.7 tblBoxMaster

- BoxId (INT, PK, Identity)

- BoxName (NVARCHAR(100), UK)

- ClientCode (NVARCHAR(50))

3. CORE PRODUCT & RFID TABLES (Client Database)

3.1 tblProductDetails

- Id (INT, PK, Identity)

- ClientCode (NVARCHAR(50))

- BranchId (INT, FK)

- CounterId (INT, FK)

- ItemCode (NVARCHAR(100), UK)

- CategoryId (INT, FK)

- ProductId (INT, FK)

- DesignId (INT, FK)

- PurityId (INT, FK)

- GrossWeight (FLOAT)

- StoneWeight (FLOAT)

- DiamondHeight (FLOAT)

- NetWeight (FLOAT)

- BoxDetails (NVARCHAR(100))

- Size (INT)

- StoneAmount (DECIMAL(18,2))

- DiamondAmount (DECIMAL(18,2))

- HallmarkAmount (DECIMAL(18,2))

- MakingPerGram (DECIMAL(18,2))

- MakingPercentage (DECIMAL(18,2))

- MakingFixedAmount (DECIMAL(18,2))

- Mrp (DECIMAL(18,2))

- ImageUrl (NVARCHAR(500))

- Status (NVARCHAR(50))

- CreatedOn (DATETIME2)

3.2 tblRFID

- RFIDCode (NVARCHAR(50), PK)

- EPCValue (NVARCHAR(100))

- ClientCode (NVARCHAR(50))

- IsActive (BIT)

- CreatedOn (DATETIME2)

3.3 tblProductRFIDAssignment

- Id (INT, PK, Identity)

- ProductId (INT, FK)

- RFIDCode (NVARCHAR(50), FK)

- AssignedOn (DATETIME2)

- UnassignedOn (DATETIME2)

- IsActive (BIT)

3.4 tblProductImage

- Id (INT, PK, Identity)

- ClientCode (NVARCHAR(50))

- ProductId (INT, FK)

- FileName (NVARCHAR(255))

- FilePath (NVARCHAR(500))

- ContentType (NVARCHAR(100))

- FileSize (BIGINT)

- OriginalFileName (NVARCHAR(255))

- ImageType (NVARCHAR(50))

- DisplayOrder (INT)

- IsActive (BIT)

- CreatedOn (DATETIME2)

- UpdatedOn (DATETIME2)

4. STOCK VERIFICATION TABLES (Client Database)

4.1 tblStockVerification

- Id (INT, PK, Identity)

- ClientCode (NVARCHAR(50))

- VerificationSessionName (NVARCHAR(100))

- BranchId (INT, FK)

- CounterId (INT, FK)

- CategoryId (INT, FK)

- Status (NVARCHAR(50))

- TotalItemsScanned (INT)

- MatchedItemsCount (INT)

- UnmatchedItemsCount (INT)

- CreatedOn (DATETIME2)

- UpdatedOn (DATETIME2)

- IsActive (BIT)

4.2 tblStockVerificationDetail

- Id (INT, PK, Identity)

- StockVerificationId (INT, FK)

- ClientCode (NVARCHAR(50))

- ItemCode (NVARCHAR(100))

- RfidCode (NVARCHAR(50))

- VerificationStatus (NVARCHAR(50))

- CreatedOn (DATETIME2)

- IsActive (BIT)

5. INVOICE & SALES TABLES (Client Database)

5.1 tblInvoice

- Id (INT, PK, Identity)

- ClientCode (NVARCHAR(50))

- InvoiceNumber (NVARCHAR(50), UK)

- ProductId (INT, FK)

- RfidCode (NVARCHAR(50))

- SellingPrice (DECIMAL(18,2))

- DiscountAmount (DECIMAL(18,2))

- FinalAmount (DECIMAL(18,2))

- InvoiceType (NVARCHAR(20))

- CustomerName (NVARCHAR(100))

- CustomerPhone (NVARCHAR(15))

- CustomerAddress (NVARCHAR(200))

- PaymentMethod (NVARCHAR(50))

- PaymentReference (NVARCHAR(100))

- SoldOn (DATETIME2)

- CreatedOn (DATETIME2)

- UpdatedOn (DATETIME2)

- Remarks (NVARCHAR(500))

- IsActive (BIT)

6. STOCK TRACKING & MOVEMENT TABLES (Client Database)

6.1 tblStockMovement

- Id (INT, PK, Identity)

- ClientCode (NVARCHAR(50))

- ProductId (INT, FK)

- RfidCode (NVARCHAR(50))

- MovementType (NVARCHAR(20))

- Quantity (INT)

- UnitPrice (DECIMAL(18,2))

- TotalAmount (DECIMAL(18,2))

- BranchId (INT, FK)

- CounterId (INT, FK)

- CategoryId (INT, FK)

- ReferenceNumber (NVARCHAR(100))

- ReferenceType (NVARCHAR(50))

- Remarks (NVARCHAR(500))

- MovementDate (DATETIME2)

- CreatedOn (DATETIME2)

- UpdatedOn (DATETIME2)

- IsActive (BIT)

6.2 tblDailyStockBalance

- Id (INT, PK, Identity)

- ClientCode (NVARCHAR(50))

- ProductId (INT, FK)

- RfidCode (NVARCHAR(50))

- BranchId (INT, FK)

- CounterId (INT, FK)

- CategoryId (INT, FK)

- BalanceDate (DATETIME2)

- OpeningQuantity (INT)

- ClosingQuantity (INT)

- AddedQuantity (INT)

- SoldQuantity (INT)

- ReturnedQuantity (INT)

- TransferredInQuantity (INT)

- TransferredOutQuantity (INT)

- OpeningValue (DECIMAL(18,2))

- ClosingValue (DECIMAL(18,2))

- AddedValue (DECIMAL(18,2))

- SoldValue (DECIMAL(18,2))

- ReturnedValue (DECIMAL(18,2))

- CreatedOn (DATETIME2)

- UpdatedOn (DATETIME2)

6.3 tblStockTransfer

- Id (INT, PK, Identity)

- ClientCode (NVARCHAR(50))

- TransferNumber (NVARCHAR(50), UK)

- ProductId (INT, FK)

- RfidCode (NVARCHAR(50))

- TransferType (NVARCHAR(20))

- SourceBranchId (INT, FK)

- SourceCounterId (INT, FK)

- SourceBoxId (INT, FK)

- DestinationBranchId (INT, FK)

- DestinationCounterId (INT, FK)

- DestinationBoxId (INT, FK)

- Status (NVARCHAR(20))

- TransferDate (DATETIME2)

- CompletedDate (DATETIME2)

- Reason (NVARCHAR(500))

- Remarks (NVARCHAR(500))

- ApprovedBy (NVARCHAR(100))

- ApprovedOn (DATETIME2)

- RejectedBy (NVARCHAR(100))

- RejectedOn (DATETIME2)

- RejectionReason (NVARCHAR(500))

- CreatedOn (DATETIME2)

- UpdatedOn (DATETIME2)

- IsActive (BIT)

KEY RELATIONSHIPS:

- User.ClientCode → BranchMaster.ClientCode

- CounterMaster.BranchId → BranchMaster.BranchId

- ProductDetails.CategoryId → CategoryMaster.CategoryId

- ProductDetails.ProductId → ProductMaster.ProductId

- ProductDetails.DesignId → DesignMaster.DesignId

- ProductDetails.PurityId → PurityMaster.PurityId

- ProductDetails.BranchId → BranchMaster.BranchId

- ProductDetails.CounterId → CounterMaster.CounterId

- ProductRfidAssignment.ProductId → ProductDetails.Id

- ProductRfidAssignment.RFIDCode → Rfid.RFIDCode

- ProductImage.ProductId → ProductDetails.Id

- Invoice.ProductId → ProductDetails.Id

- StockMovement.ProductId → ProductDetails.Id

- StockMovement.BranchId → BranchMaster.BranchId

- StockMovement.CounterId → CounterMaster.CounterId

- StockMovement.CategoryId → CategoryMaster.CategoryId

- DailyStockBalance.ProductId → ProductDetails.Id

- DailyStockBalance.BranchId → BranchMaster.BranchId

- DailyStockBalance.CounterId → CounterMaster.CounterId

- DailyStockBalance.CategoryId → CategoryMaster.CategoryId

- StockVerification.BranchId → BranchMaster.BranchId

- StockVerification.CounterId → CounterMaster.CounterId

- StockVerification.CategoryId → CategoryMaster.CategoryId

- StockVerificationDetail.StockVerificationId → StockVerification.Id

- StockTransfer.ProductId → ProductDetails.Id

- StockTransfer.SourceBranchId → BranchMaster.BranchId

- StockTransfer.SourceCounterId → CounterMaster.CounterId

- StockTransfer.DestinationBranchId → BranchMaster.BranchId

- StockTransfer.DestinationCounterId → CounterMaster.CounterId

PERFORMANCE INDEXES:

- All primary keys are auto-indexed

- Unique constraints create unique indexes

- Composite indexes for multi-column queries

- Foreign key indexes for join operations

- Status and date indexes for filtering

- ClientCode indexes for multi-tenant isolation