

AppDev Team

CPST-4710 - February 9, 2024

Database Finalization

[chase-larocca/CPST-4710-Capstone: CPST-4710-Capstone](#)

After discussing the design for our database, we have decided to use MySQL as the database platform for the database, which will be deployed on Tulane's VM. For the database name, we chose TTOPs (Tulane Tech) and this will serve as the order-taking and inventory management system for South Balance. We are planning to implement tables such as Customers (storing customer details), Orders (storing customer orders), Inventory (storing stock and descriptions of South Balance's products), and Users (holding data on system users and their roles) in conjunction with the stored procedures added previously. The team has added CRUD procedures to create, read, update, and delete data from the individual tables. In addition to the CRUD procedures, the team has also implemented a couple of views that will be needed to execute the final application. These include views to get an inventory archive summary, to view users and their roles, and to view inventory status.

Table Structure

Customers Table - TTOPs.Customers

CustomerID (PK, INT, Auto Increment)
FirstName (VARCHAR, Required)
LastName (VARCHAR, Required)
Email (VARCHAR, Unique, Required)
PhoneNumber (VARCHAR, Optional)
ShippingAddress (TEXT, Optional)
CreatedAt (TIMESTAMP, Default: Current Timestamp)
isDeleted(VARCHAR,Optional)

Orders Table - TTOPs.Orders

OrderID (PK, INT, Auto Increment)
CustomerID (FK → Customers.CustomerID, INT, Required)
OrderDate (DATETIME, Default: Current Timestamp)
TotalPrice (DECIMAL, Required)
OrderStatus (ENUM: Pending, Shipped, Delivered, Cancelled, Required)
NumberOfItems(INT, Required)

Orders Archive Table - TTOPs.OrdersArchive

ArchiveID (PK, INT, Auto Increment)
OrderID (Original Order ID, INT, Required)
OrderNumber (INT, Required)
ShippingDestination (VARCHAR, Optional)
CustomerID (FK → Customers.CustomerID, INT, Required)
OrderDate (DATETIME, Required)
TotalPrice (DECIMAL, Required)
OrderStatus (ENUM: Cancelled, Deleted, Completed, Required)
ArchivedDate (TIMESTAMP, Default: Current Timestamp)
ArchivedReason (TEXT, Optional)

Inventory Table - TTOPs.Inventory

SKU (PK, INT, Auto Increment)
ItemName (VARCHAR, Required)
ItemDescription (TEXT, Optional)
Price (DECIMAL, Required)
QuantityInStock (INT, Required, Default: 0)
Supplier (VARCHAR, Optional)
RestockThreshold (INT, Default: 30)
CreatedAt (TIMESTAMP, Default: Current Timestamp)
UpdatedAt (TIMESTAMP, Default: Current Timestamp on Update)

Users Table - TTOPs.Users

UserID (PK, INT, Auto Increment)
FirstName (VARCHAR, Required)
LastName (VARCHAR, Required)
Email (VARCHAR, Unique, Required)
PasswordHash (VARCHAR, Required)
Role (ENUM: Admin, Employee, Manager, Customer, Default: Customer, Required)
CreatedAt (TIMESTAMP, Default: Current Timestamp)
LastLogin (TIMESTAMP, Optional)

Inventory Archive Table - TTOPs.InventoryArchive

ArchiveID (PK, INT, Auto Increment)
SKU (Original SKU ID, INT, Required)
ItemName (VARCHAR, Required)
ItemDescription (TEXT, Optional)

SKUINT (VARCHAR, Unique, Required)
ItemPrice (DECIMAL, Required)
ItemQuantity (INT, Required)
Supplier (VARCHAR, Optional)
CreatedAt (TIMESTAMP, Required)
FinalUpdateAt (TIMESTAMP, Required)
ArchivedDate (TIMESTAMP, Default: Current Timestamp)

Stored Procedures

Name: sp_AddInventoryItem

Description: Adds inventory item to the inventory table. Utilized by the added item button for backend inventory management.

Name: sp_GetOrderStatuses

Description: This stored procedure is used to populate the order status for various tracking sections throughout the site.

Name: sp_InventoryCreateOrUpdate

Description: General purpose creates or update for backend flask functions.

Name: sp_Inventory_Delete

Description: Deletes inventory item from the inventory table.

Name: sp_Inventory_Read

Description: General purpose stored procedure to read data from the inventory table.

Name: sp_InventoryArchive_Delete

Description: Deletes record from the inventory archive.

Name: sp_InventoryArchive_Insert

Description: Inserts data into the inventory archive table

Name: sp_InventoryArchive_Read

Description: General purpose procedure to read data from the inventory archive table

Name: sp_InventoryWithColors

Description: Stored procedure to get the inventory items with their associated colors for product page population.

Name: sp_Users_CreateOrUpdate

Description: General purpose procedure to create or update user accounts within the user's table.

Name: sp_Users_Delete

Description: Deletes user from the user's table.

Name: sp_Users_Read

Description: General purpose function to read user information from the users table.

