Workshop 02

Building a MobileShop Web Application

Introduction

Imagine you're an employee of an online mobiles retailer named **Mobile Shop**. Your manager has asked you to develop a Web application for mobiles management. The application has to support adding, viewing, modifying, and removing mobiles. A standardized usage action verbs better known as Create, Read, Update, Delete (CRUD).

This workshop explores creating an application using Java Web Project. An **SQL Server Database** will be created to persist the car's data that will be used for reading and managing mobile data by **JDBC**

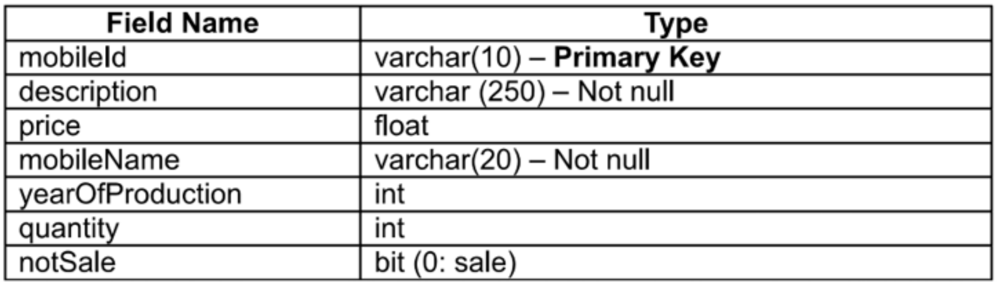
Objectives

In this workshop , you will be:

- Develop an Java Web Application by MVC2 (Model-View-Controller), JSP, JSTL & Custom Tag, EL, JavaBean and Servlet
- Perform CRUD actions using JDBC
- Use the SQL Server database to data management
- Use LINQ in Java to query and sort data (optional)
- Apply to validate data type for all fields.
- Run the project and test the Java Web Application actions.

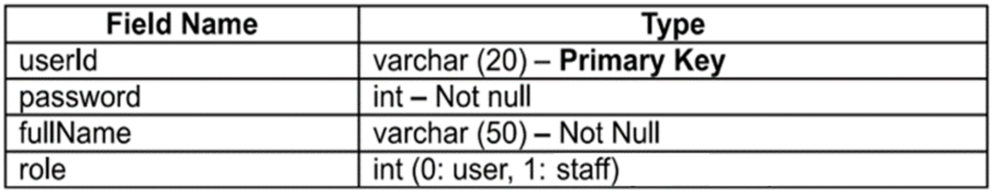
MyShop Database

The mobile device data is stored in a table named **Mobiles**. The structure of the Mobiles has been specified below:



Field Name	Type
mobileId	varchar(10) – **Primary Key**
description	varchar (250) – Not null
price	float
mobileName	varchar(20) – Not null
yearOfProduction	int
quantity	int
notSale	bit (0: sale)

The Application must be authenticated to identity the member that can be accessed the application in **Users**



Field Name	Type
userId	varchar (20) – **Primary Key**
password	int – Not null
fullName	varchar (50) – Not Null
role	int (0: user, 1: staff)

Main Functions

Building the web site using MVC2 in JavaEE allows some functions as

- Login with Staff and User
- The functions for the **Staff**

  - Search device with id or name (not case sensitive)

  - Delete mobile on data grid

  - Update price, description, quantity, and notSale of mobile on data grid

  - Insert new mobile into DB
- The functions for **User**

  - Search device with price in range [min, max]

  - Add mobile to cart

  - View mobile cart with total amount, then user can update and remove items
- User interface of the web app designed by student