Design Documentation

J2EE  
E-Commerce Application

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# Introduction

## Overview

This application was developed to satisfy the assignment criteria and serve as a mock E-Commerce website that we could possibly set up in the future.

## Scope

This application is intended to be lightweight and easy to navigate. Having just a handful of pages to navigate through. This was a project to apply what we know about the fundamentals of J2EE.

# Architectural Overview

A diagram of a computer

Description automatically generated

The architectural pattern that was employed with this application was the Model, View, Controller (MVC) pattern.

The Models are plain objects used as a framework to hold information needed.

The Controllers fetch information from the database and serve it to the user though the Java Server Pages.

Views act as the interface that the users and clients can interface with and see the information served to them.

# Technologies Used

With this application, we have employed Java 2 Enterprise Edition, Tomcat application server, and MySQL (MariaDB) Database.

These technologies were selected because J2EE was a requirement for the Assignment. MySQL was selected for data storage because it is cost effective, powerful, and the most comfortable. These are also the reasons for Tomcat application server.

# System Components

The components used in this mock E-commerce application range from Java Server Pages, Servlets, and web Components.

Java Server Pages are used for the user to interface with and consume the information they requested.

Servlets with help from the context of the request, fetch the information and serve it back to the user.

Web Components respond to HTTP requests made by the web-browser and thus the user. Java Server Pages, servlets, and web listeners make up the web components.

# Database Design

A close-up of a diagram

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The tables shown above strived for simplicity. The user’s table is to hold information regarding individuals accounts. The products table is used to hold information about each product that is for sale on the site, while the orders table holds information about each individuals’ orders and tells them what products they ordered on what day for how much money.

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