

Assignment #2

Due Date: 10/13/19 by 11:59pm

Deliverable:

- Use the object-oriented design principles and utilize the MVC architecture discussed in the class to produce an object-oriented web-based enterprise application that is reusable, flexible, and extensible.
- Use **Servlets** to implement the functionalities listed below.
- Record 10 minutes demo of your assignment's run using screencast. The tool can be downloaded from this URL <http://screencast-o-matic.com/home>
- Capture most important 10 screen-shots of your output and save them in a file called output.pdf
- All source code and byte code shall be submitted.
- Readme text file that illustrates how to compile/install/run your application
- Post your homework as a single zipped file on Blackboard with the name "HW2_YourLastName,FirstName"

Important Notes:

- NO IDE to be used in any shape/form in the implementation of this assignment
- Do NOT communicate or share your assignment with others

High-Level Requirements:

Extend Assignment #1 for the online retailer to add the following features:

- All accounts login information must be stored in SQL database (MySQL)
- All Customers transactions/orders must be stored in SQL database (MySQL)
- All order updates to insert/delete/update orders must be reflected in the MySQL database; not only the HashMap objects
- Customer must be able to submit product reviews
- Product reviews must be stored in NoSQL database (MongoDB)
- Add Trending & Data Analytics feature (detailed below)
- All new code added for MySQL shall be placed in a class called MySQLDataStoreUtilities.java
- All new code added for MongoDB shall be placed in a class called MongoDBDataStoreUtilities.java

Required Functionalities:

- Extend Assignment #1 to use MySQL and MongoDB database engines to support the following functionalities.
- Use MySQL to store all accounts login information
- Use MySQL to store All Customers transactions/orders
- Extend Assignment #1 in order to allow the customer to write and submit a **Product Review** online that has the following form:
 1. ProductModelName: Samsung Galaxy 6
 2. ProductCategory: phone
 3. ProductPrice: \$499
 4. RetailerName: SmartPortables
 5. RetailerZip: 60616
 6. RetailerCity: Chicago
 7. RetailerState: IL
 8. ProductOnSale: Yes
 9. ManufacturerName: Samsung
 10. ManufacturerRebate: Yes
 11. UserID: whksa8
 12. UserAge: 24

13. UserGender: Male
14. UserOccupation: accountant
15. ReviewRating: 4
16. ReviewDate: 12/15/2015
17. ReviewText: It has excellent video/audio clarity, however, it overheats after 5 hours of use

- Extend Assignment #1 to add **Trending** link on the left navigation bar that the user can use to see trends for sold products
- Once the user clicks the **Trending**, the user must be presented with :
 1. Top five most liked products
 2. Top five zip-codes where maximum number of products sold
 3. Top five most sold products regardless of the rating

Product Review Form:

The product review Form has the following fields:

1. ProductModelName: Samsung Galaxy 6
2. ProductCategory: phone
3. ProductPrice: \$499
4. RetailerName: SmartPortables
5. RetailerZip: 60616
6. RetailerCity: Chicago
7. RetailerState: IL
8. ProductOnSale: Yes
9. ManufacturerName: Samsung
10. ManufacturerRebate: Yes
11. UserID: whksa8
12. UserAge: 24
13. UserGender: Male
14. UserOccupation: accountant
15. ReviewRating: 4
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