# Assignment #3

**Due Date**: **5/28/17 by 11:59m**

## Deliverables:

- Extend Assignment #2, **to add the feature listed below to**  **BestDeal** web-app developed in Assignment #1 and Assignment #2.
- 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 5 minutes demo (Video and Audio) 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 (winzip format only) file online with the name "HW3_YourLastName,FirstName"
- Please **do NOT hard-code** your name, file path/directory name,  or login id in your source-code …. Since I need to install and run your code on a local machine in order to grade your Assignment.

# Important Notes:

- The intent of the provided Code-snippets, Tutorial, and template is to coach you on the thinking of how to build the object-oriented web-based application for the enterprise

- It is your TASK to refactor/reuse the given template to produce REUSABLE/FLEXIBLE/EXTENSIBLE object-oriented web-based application for the enterprise

- NO IDE or SOFTWARE FRAMEWORKS to be used in any shape/form for auto-code generation of the code that will be used in the implementation of your assignment

- Do NOT communicate or share your assignment with others

# High-Level Requirements:

Extend Assignment #2 for the online retailer BestDeal to add the following features:

- Customer must be able to submit product <u>reviews</u>
- Product <u>reviews</u> must be stored in NoSQL database (MongoDB)
- Add **Trending** feature (detailed below)
- All new code added for MongoDB shall be placed in a class called MongoDBDataStoreUtilities.java

# Required Functionalities:

- Extend Assignment #2 in order to allow the customer to write and submit a **Product Review** online that has the following form:
    1. ProductModelName: Samsung TV 60 LED
    2. ProductCategory: TV
    3. ProductPrice: $1299
    4. RetailerName: BestDeal
    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 clarity and motion refresh rate for, however, it overheats after 5 hours of use

- Extend Assignment #2 to add **Trending** link on the left navigation (or header) 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 TV 60 LED
2. ProductCategory: TV
3. ProductPrice: $1299
4. RetailerName: BestDeal
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 clarity and motion refresh  rate for, however, it overheats after 5  hours of use