For this exercise , I Have created another java file – CustomerReviewBean.java which is mainly doing below 3 things:

* Calculating a product’s total number of customer’s reviews whose ratings are within a given range(inclusive)
* Checking customer comments for any curse words, if found any, then throwing the exception
* Checking customer rating, if <0, then throwing an exception

Looking at each method in detail:

**getTotalNumOfCustomerReviews –** this methodtakes 2 ranges as input(ratingStartRange and ratingEndRange). These inputs are the ranges for which we need to calculate the customer ratings. The return is the total count of all the ratings. I am first fetching the reviews of the product by making use of existing method (getReviewsForProduct) in the DefaultCustomerReviewService.java. Once the list has been retrieved, I am iterating through it and incrementing the count of the reviews if that falls within the required range. Then returning the count.

**createCustomerReview –** this method checks for the validation of customer comment and customer review and is both the things are fine, then calls the existing method (createCustomerReview) of DefaultCustomerReviewService.java to create the customer review.

**checkForCurseWords()** – In order to read the list of curse words, we can have the list in the database and read it. Or we can have the list in CustomerReviewConstants.java and read it. The code for both the ways is shown. When we get the list, we can then iterate through it and check the customer comment against the list. For the comparison, I am converting both the parameters to lower case and then with the help of contains method, I am trying to check the comment.

**checkForRatings()** – in this method, I am making use of the already present CustomerReviewConstants.getInstance().MINRATING to check the minimum rating and if below, then throwing an exception.

Note:

I have tried to incorporate the already present methods, constants and beans in the customerreviewserver.jar.src