# ITMD 515 Final Project Read Me

**Aim:**

The purpose of this assignment is to produce a comprehensive multi-tiered enterprise application, consisting of a persistence layer, business layer, and presentation layer, also making use of Java EE services such as security and transactions

**Project Summary and Design:**

* The final project consists of the following domain model:
  + Designer – designs the product and owns a brand
  + Brand – belongs to the designer and it contains various products
  + Customer – views the existing products and places the orders
  + Product – belongs to a brand
  + Order – contains the details of the order
* The relationships between these entities is as follows:
  + One to One Unidirectional => Designer and Brand
  + Many to Many Bi => Product and Order
  + One to Many Bi => Customer and Products
  + One to Many Bi => Brand and Products
  + One to Many Unidirectional => Designer and Order
* I have identified in all two roles as users to use the application:
  + Designer can do the following:
    - Can sign up as a designer
    - A new designer can create a brand
    - Can view and update the profile
    - Can view the existing products, order details and the total sale
    - Can add products to the brand (*Issue with my application is that it does add a new product but it happens to create an additional blank product row for every newly added product*)
    - Can update the products of the brand
    - Can delete the products from the brand
    - Can logout
  + Customer can do the following:
    - Can sign up as a customer
    - Can view all the available products
    - Can create a new order by adding a product
    - Can review the existing orders
    - Can view and update the profile
    - Can logout
  + My plan was to have an Admin role too but due to lack of time I had to de-scope it
* I have made use of the JSF pages in the presentation layer
* I have displayed most of the information in tabular format as stated in the requirement
* I have made use of the boostrap frontend framework as shown by Prof. Spyrison in order to implement basic CSS in my presentation layer
* I have ensured validation through JSF
* Through my databasePopulator I have enough test samples ready:
  + For designer role: Login as “*designer1*” and password:” *desi*”
  + For customer role: Login as “*cust1*” and password: “*cust*”
* The user can sign up as a new designer or customer to create an account
* I have handled exceptions in such a way that it will log the errors and show valid error/alert messages to the user explaining the real problem

**Development Insights:**

* I enjoyed learning and implementing JSF components
* It was a challenging task as I am new to this technology but I learned a lot from the BalusC blog available online
* I made few silly mistakes such as not initializing instances that gave me 100’s of null pointer exceptions but I caught them in the end. This ate too much of my time
* Given some free time in future I would like to implement a proper e-commerce website using J2EE. I want to explore the payment method implementation such as credit card validation and making a money transaction etc.

**Requirements:**

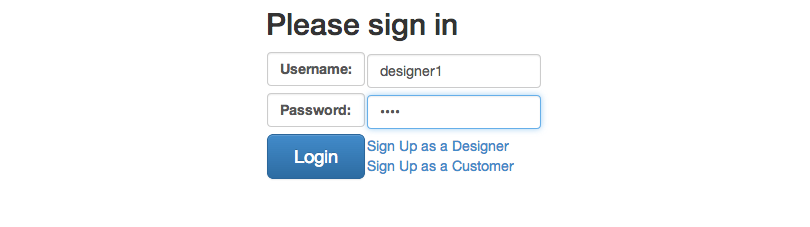
* OS: Mac OX 10.8
* Installation: MySQL WorkBench, NetBeans and JDK 7 for macosx
* MySQL user: itmd4515 with password as itmd4515
* Right-Click on the Tgajare Final Project web application in NetBeans and click run
* Libraries: Apache Common Codec 1.8 jar for encryption of password in the database

**Screen Captures:**

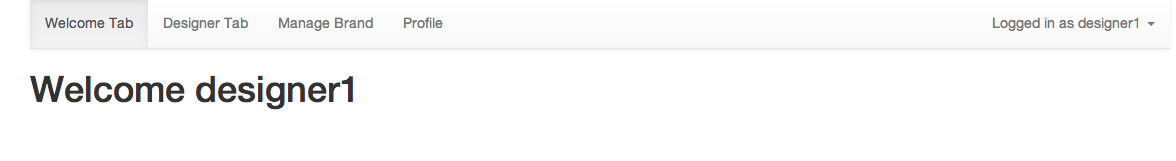
**1.** Welcome Page that navigates to login



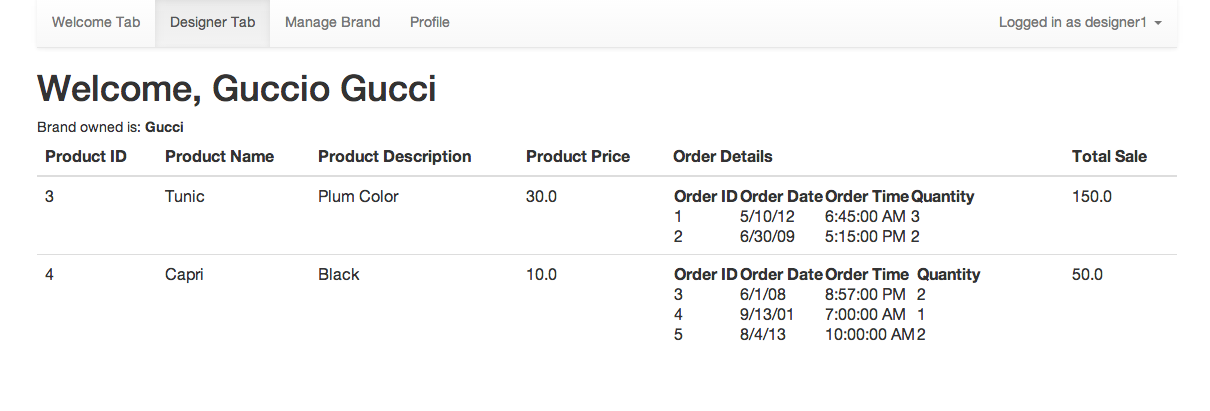
2. Enter a sample designer credentials : designer1 and desi and click on Login button



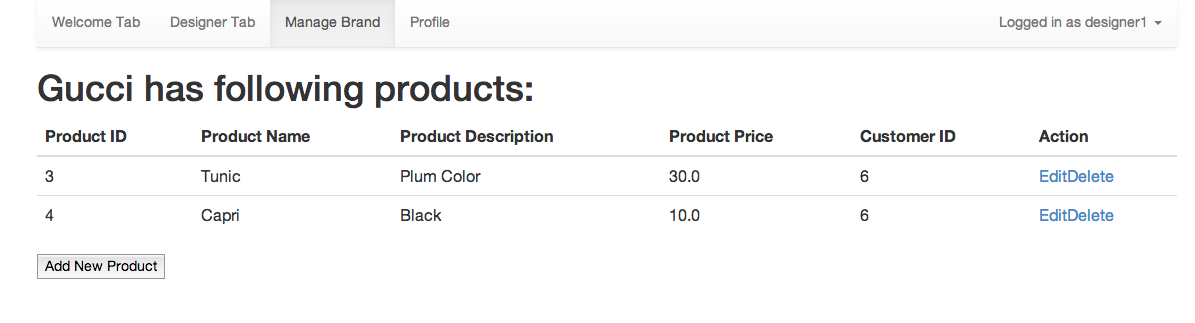
3. Welcome page of a designer



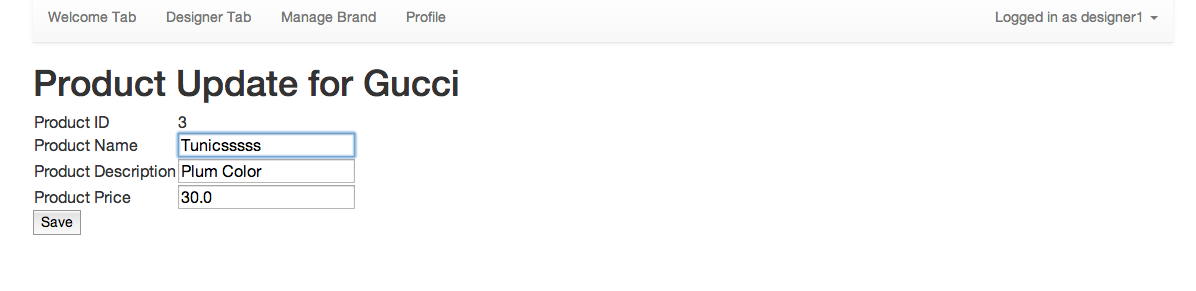
4. Designer Tab to view the brand, products and order details



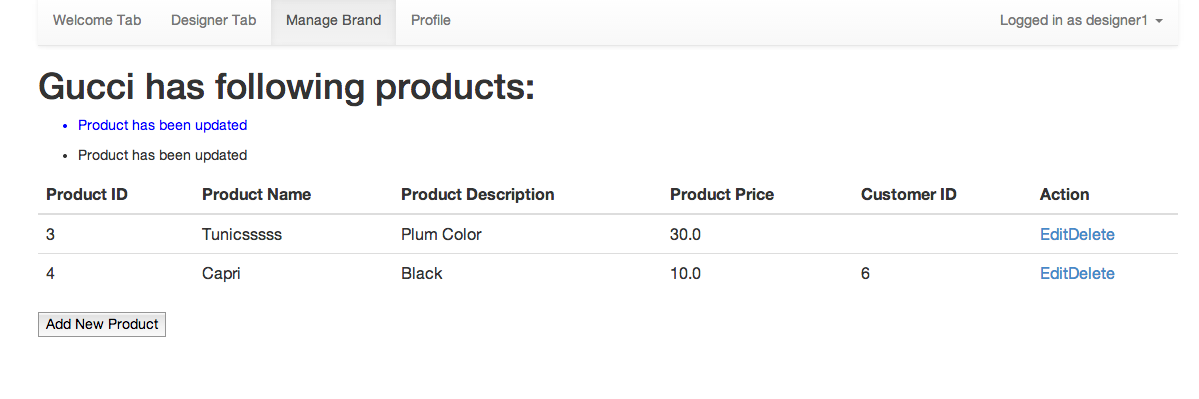
5. Manage Brand tab to perform CRUD operations on the owned brand’s products



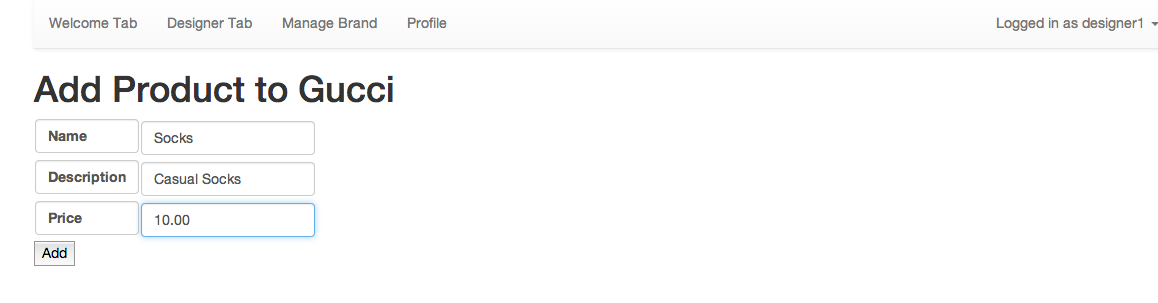
6. Click on Edit to edit the product details- changed the name from Tunic to Tunicssss and click Save

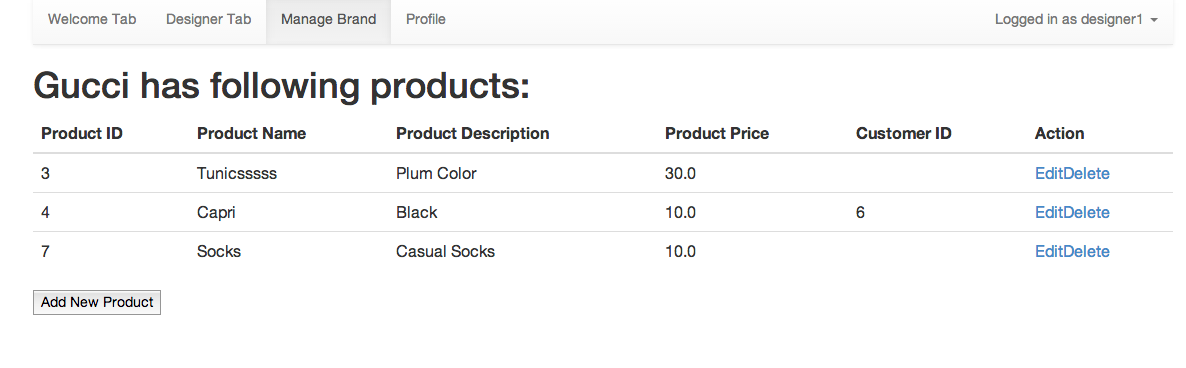


7. Updated the product successfully

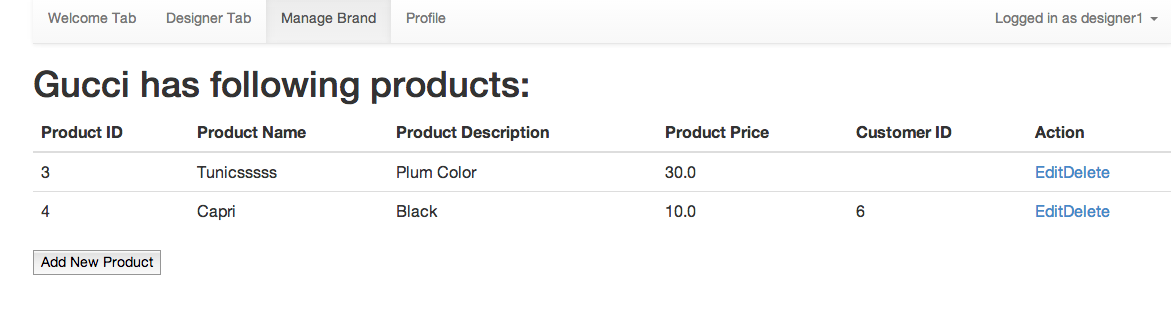


8. Click on Add Product

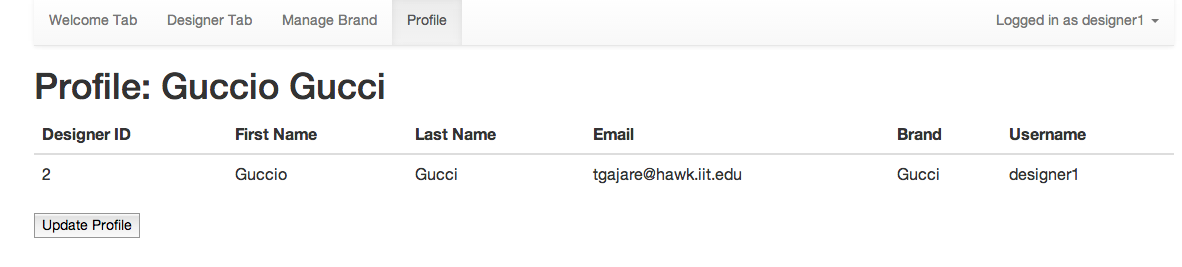


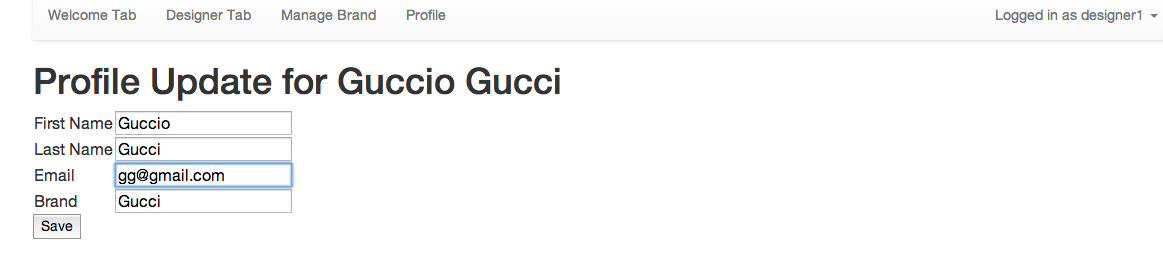


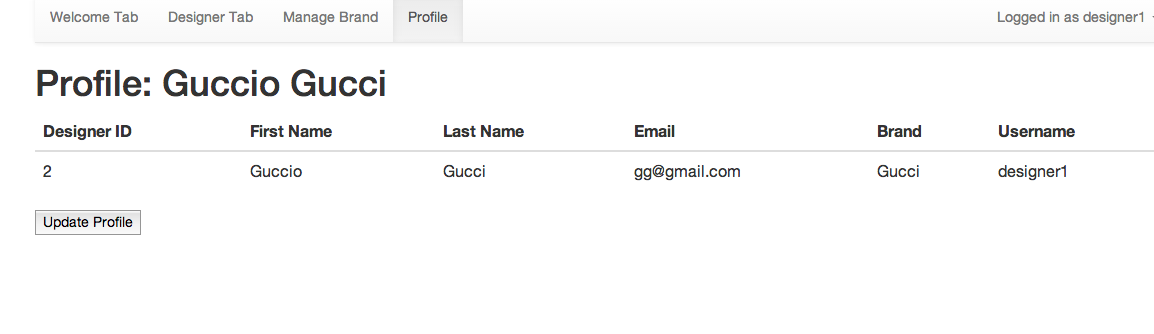
9. Click on Delete to delete the added product



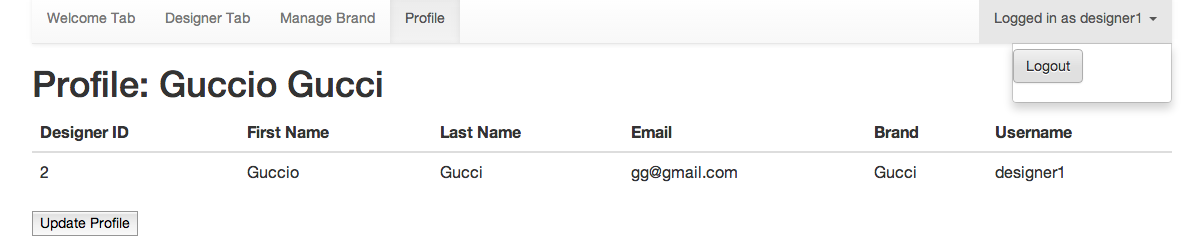
10. Update Profile – updated the email address



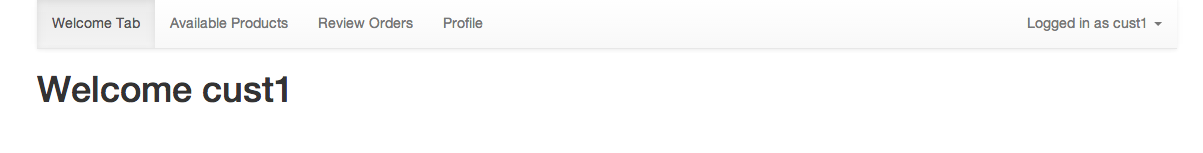




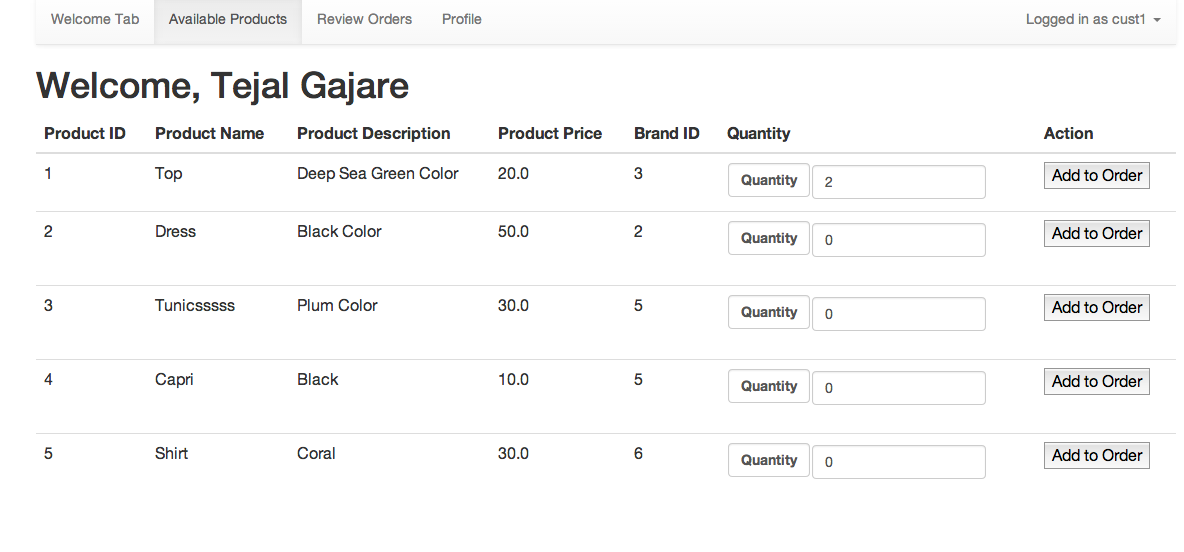
11. Logging Out as a designer



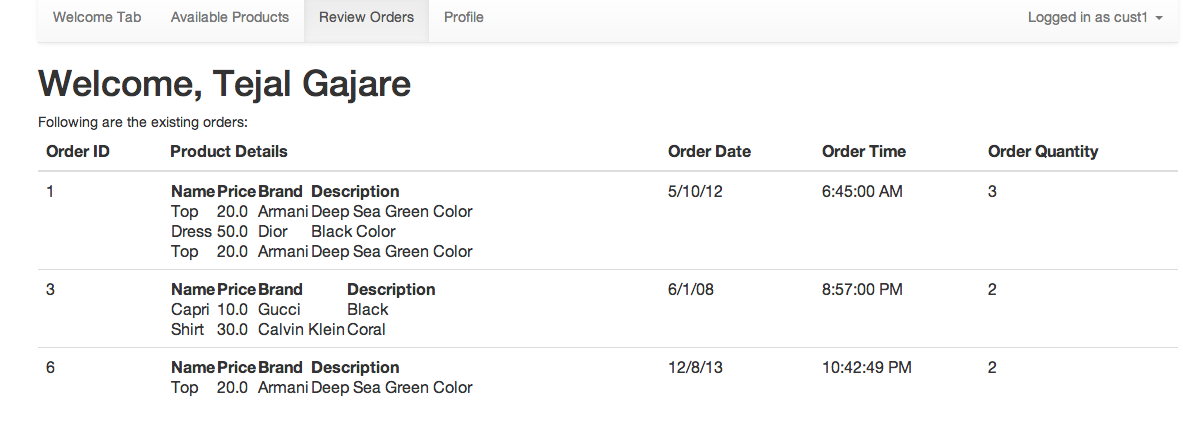
12. Login as a customer – cust1 and cust are the credentials



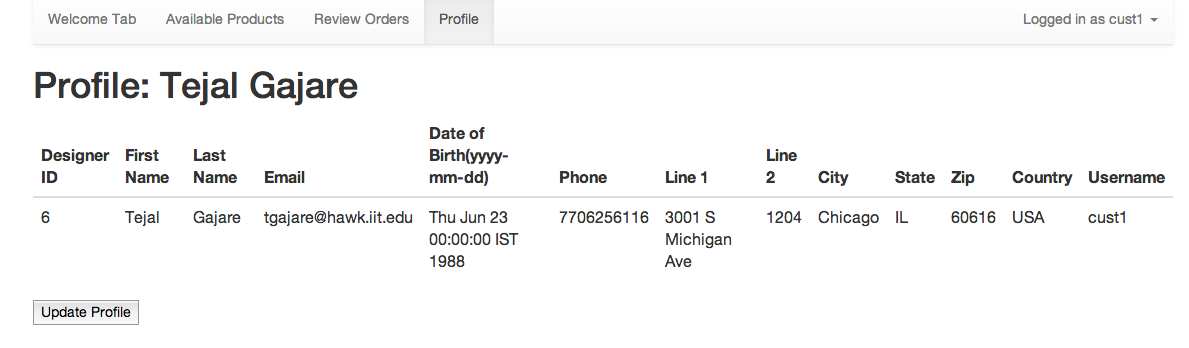
13. Can add a product. Mention the quantity and click on add to order button

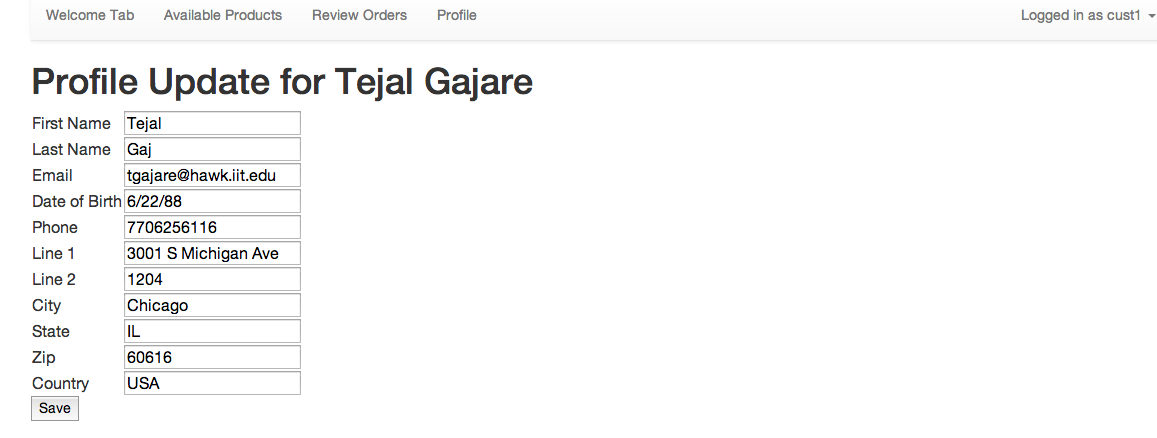


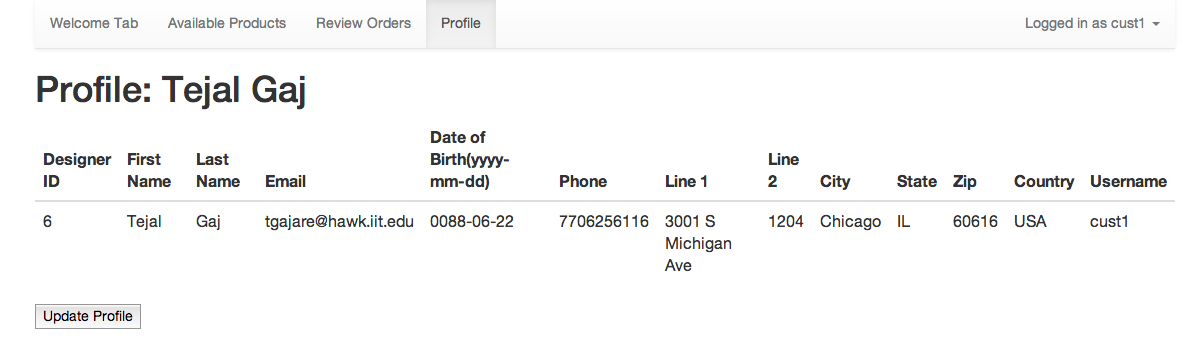
14. Order added successfully



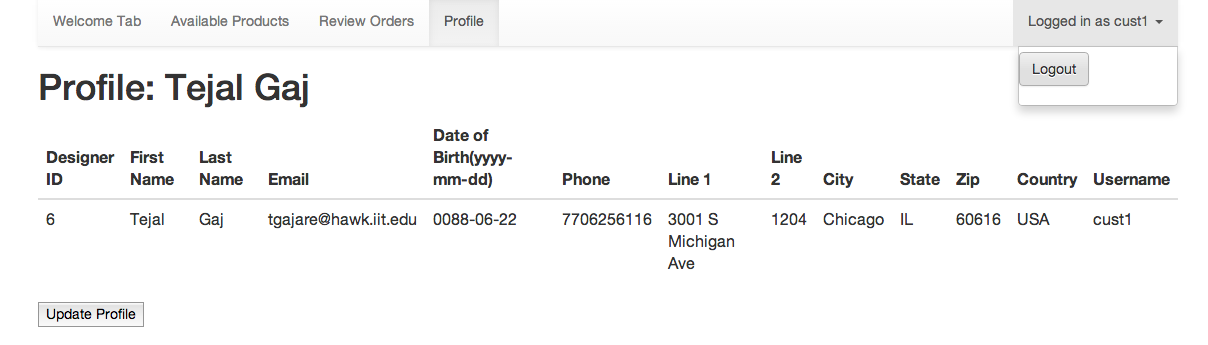
15. Profile Update



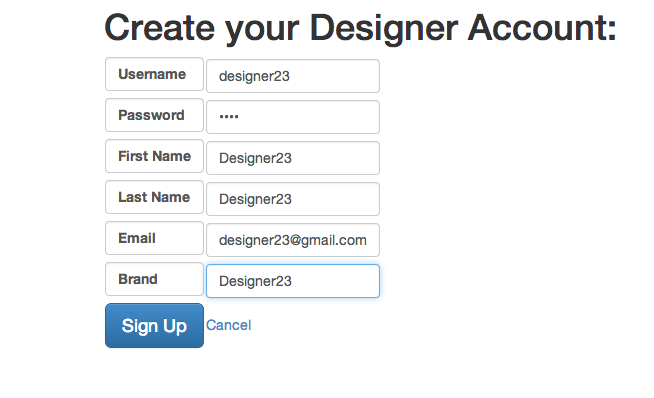




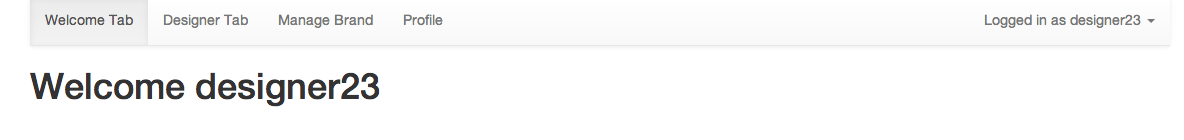
16.Logging out

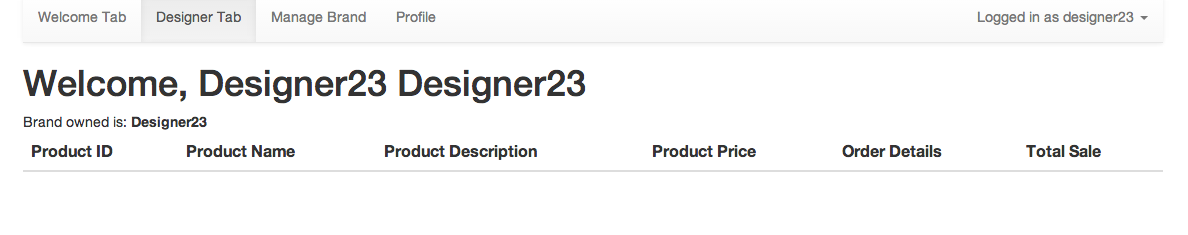


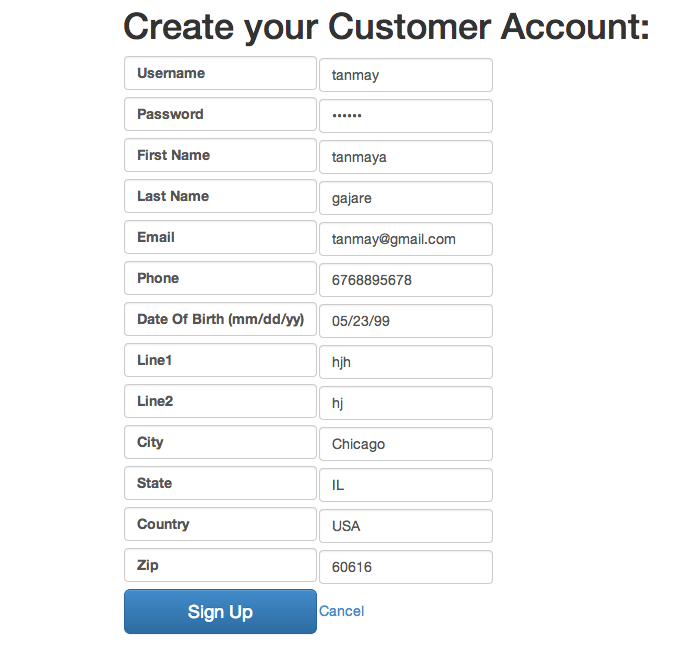
17. Sign Up as a designer – created a new designer with the provided input

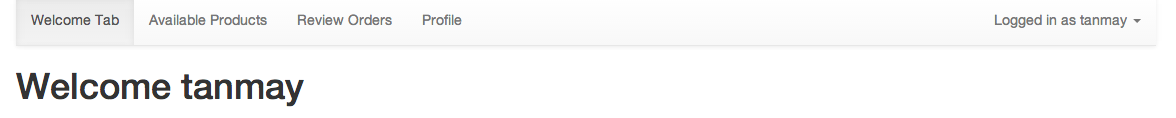


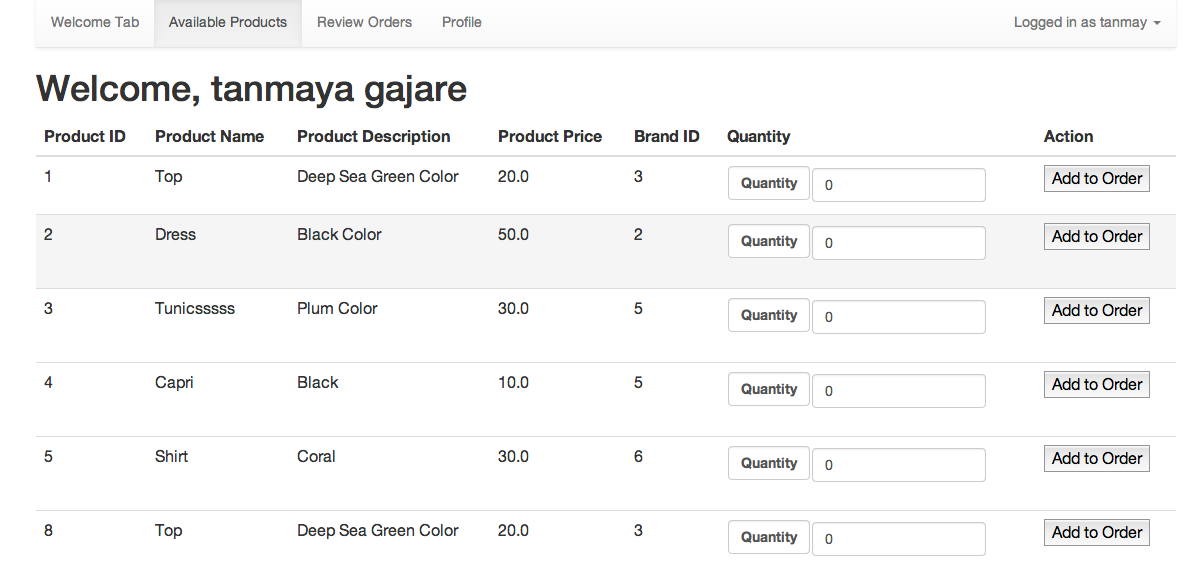


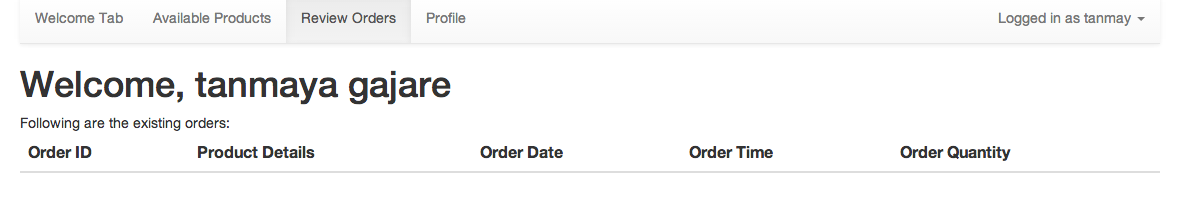




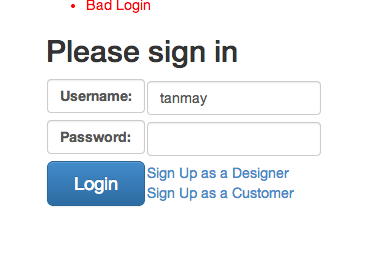
18. Sign Up as a new Customer 







19. Sample Validation on entering incorrect password





**Expected Results:**

* The only issue in my project is that when the designer adds a new product an additional blank row also gets added in the Products table. Rest all works as expected
* Please use the designer credentials as *designer1* and *desi* for testing the designer role
* Please use the customer credentials as *cust1* and *cust* for testing the customer role