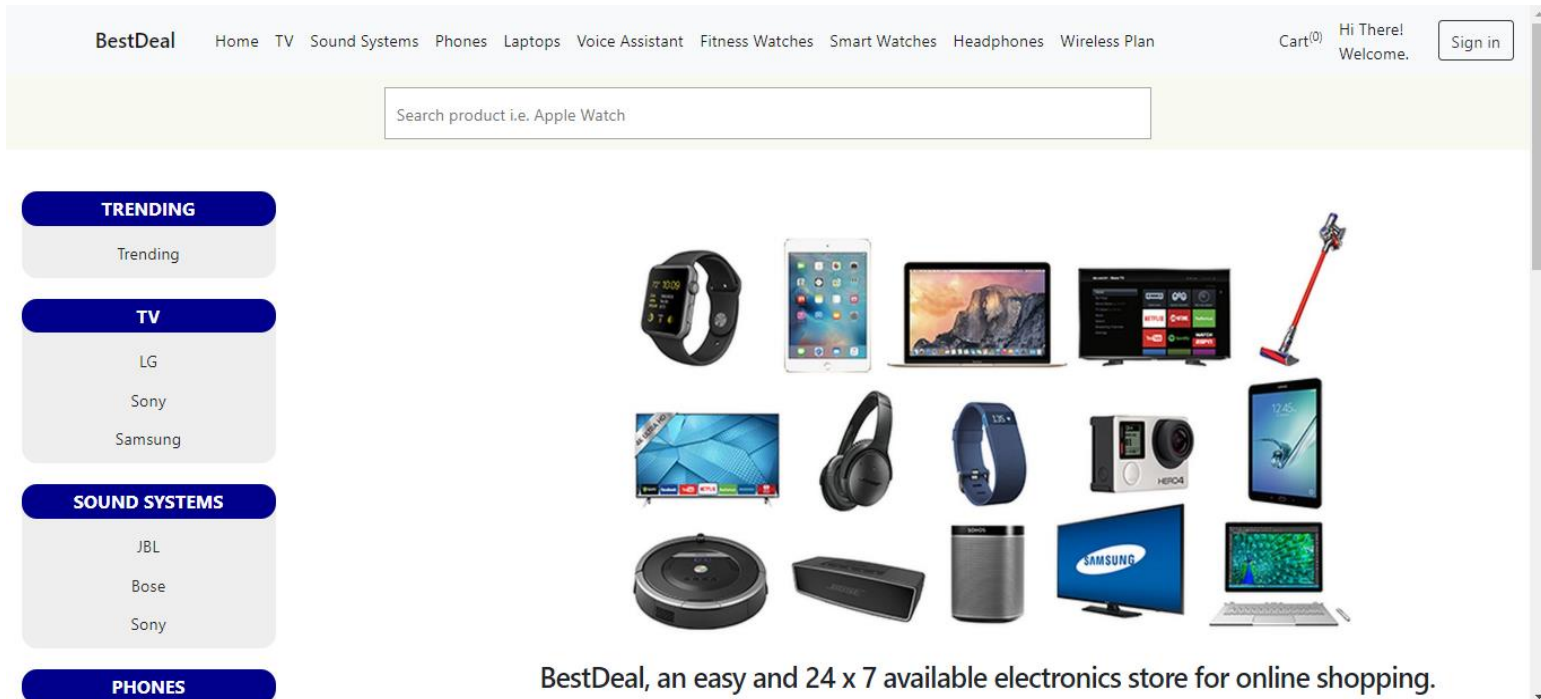# CS-584: Enterprise Web Application
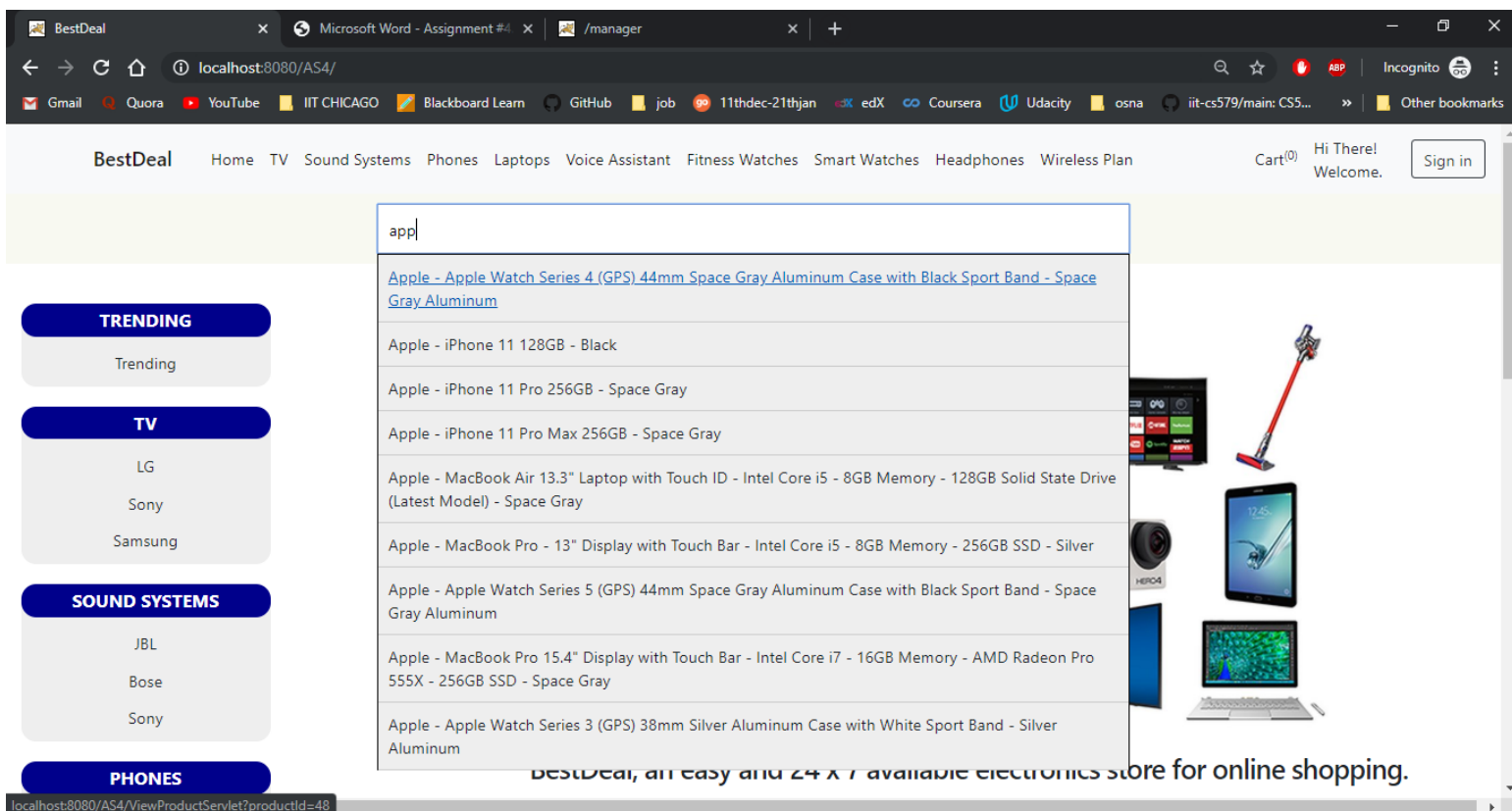## Assignment-4
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1. **Home Page with Search Bar**

2. **Search with autocomplete feature using Ajax**

3. Result After clicking on product

4. Adding product in HashMap and Database

5. Updating product in HashMap and Database

6. Deleting Product in HashMap and Database

7. Code for Adding, Updating and Deleting Products for HashMap

```java
 94
 95 ▼    public static HashMap<String, ArrayList<Product>> retrieveAllProducts() {
 96          final String key = "allProducts";
 97          productData.put(key, products);
 98          return productData;
 99      }
100
101      public static void addProduct(Product p) {
102          products.add(p);
103      }
104
105 ▼    public static void updateProduct(Product updateProduct) {
106 ▼        for (Product p : products) {
107 ▼            if (p.getProductId() == updateProduct.getProductId()) {
108                  p.updateProduct(updateProduct);
109                  break;
110              }
111          }
112      }
113
114 ▼    public static void deleteProduct(int id) {
115          ArrayList<Product> updatedCatalog = new ArrayList<Product>();
116 ▼        for (Product p : products) {
117              if (p.getProductId() != id) {
118                  updatedCatalog.add(p);
119              }
120          }
121          products = updatedCatalog;
122      }
123
124 ▼    public static void main(String[] args) {
125          SaxParserReader spr = new SaxParserReader(
126                  "C:/apache-tomcat-7.0.34/webapps/AS4/webdata/ProductCatalogNew.xml");
127          spr.parseDocument();
128
129          HashMap<String, ArrayList<Product>> prod = SaxParserReader.filterByManufacturer("Phone", "Samsung");
130
131 ▼        for (ArrayList<Product> e : prod.values()) {
132 ▼            for (Product p : e) {
133                  // System.out.println(p.toString());
134              }
135          }
136      }
137
```