

#### Final Project Work

Points possible: 100

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete that were committed to for the given week.	25

**Instructions:** In Eclipse, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document, with your Java project code, to the repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

#### **Coding Steps:**

Continue contributing to your final project.

#### **URL to GitHub Repository:**



#### **Screenshots:**

```
*CustomerContro
                                       🚺 Product.java 🔀 🔬 SustainabilityP
                                                                                                           J OrderController
                                                                                                                                                                                       Product.java
        package com.promineotech.finalProjectApi.entity;
  3⊕ import java.util.Set;[]
       4 references
public class Product {
  19
              private Long id;
  20
              private String name;
             private String description;
             private double price;
  23
24
           @JsonIgnore
  25
26
              private Set<Order> orders;
   27
28
              private Set<CustomerReview> reviews;
  29@
30
              @GeneratedValue(strategy = GenerationType.AUTO)
             public Long getId() {
    return id;
  31
32
33
34
35
             public void setId(Long id) {
   this.id = id;
  36
37
38
  39⊖
             public String getName() {
   return name;
            4 references
public void setName(String name) {
   this.name = name;
  43⊖
   45
46
             7 references
public String getDescription() {
    return description;
  47⊖
48
49
           public void setDescription(String description) {
   this.description = description;
  51⊝
   52
53
54
             @OneToMany(mappedBy = "customer")
public Set<CustomerReview> getReviews() {
    return reviews;
             public void setReviews(Set<CustomerReview> reviews) {
   this.reviews = reviews;
           public double getPrice() {
   return price;
  68⊖
            public void setPrice(double price) {
                   this.price = price;
             @ManyToMany(cascade = CascadeType.ALL)
@JoinTable(name = "product_order",
    joinColumns = @JoinColumn(name = "orderId", referencedColumnName = "id"),
    inverseJoinColumns = @JoinColumn(name = "productId", referencedColumnName = "id"))
             public Set<Order> getOrders() {
   return orders:
                                                                                                  ^ |....
```



```
OrderController
                                                                                                                                                                                                                                               Product.java
    18
19 @Entity
10 references
20 public class Order {
                 z references
private LocalDate ordered;
    23
                z references
private LocalDate estimatedDelivery;
z references
    24
                 2 references
private LocalDate delivered;
    25
                2 references
private double invoiceAmount;
2 references
private OrderStatus status;
2 references
private Set<Product> products;
    26
    27
              @JsonIgnore
2 references
private Customer customer;
     31
32
33
34
                 @Id
@GeneratedValue(strategy = GenerationType.AUTG)
                @Generatedvalue;
3 references
public Long getId() {
    return id;
              public void setId(Long id) {
   this.id = id;
               public LocalDate getOrdered() {
    return ordered;
               public void setOrdered(LocalDate ordered) {
   this.ordered = ordered;
              public LocalDate getEstimatedDelivery() {
    return estimatedDelivery;
              public void setEstimatedDelivery(LocalDate estimatedDelivery) {
   this.estimatedDelivery = estimatedDelivery;
              public LocalDate getDelivered() {
   return delivered;
              public void setDelivered(LocalDate delivered) {
   this.delivered = delivered;
              public double getInvoiceAmount() {
    return invoiceAmount;
                public void setInvoiceAmount(double invoiceAmount) {
   this.invoiceAmount = invoiceAmount;
                 public void setProducts(Set<Product> products) {
   this.products = products;
                 @ManyToOne
@JoinColumn(name = "customerId")
public Customer getCustomer() {
    return customer;
                 public void setCustomer(Customer customer) {
                                                                                                                       Writable Smart Incert 18 · 1
```



```
SustainabilityP
*CustomerContro

    CustomerReview. 
    □ Product.java

                                                                                                                                                       J OrderControl
                                                                                               J Order.java
        package com.promineotech.finalProjectApi.entity;
   3⊕ import javax.persistence.Entity;[]
  10 @Entity
       6 references
public class CustomerReview {
  11
             2 references
  13
14
             private Long id;
           2 references
private String text;
  16
            2 references
  17
            private int stars;
             2 references
19
       private String customer;
  20
            2 references
private String product;
  21
  22
23⊝
             GGeneratedValue(strategy = GenerationType.AUTO)
3 references
  24
             public Long getId() {
    return id;
  25
  26
            public void setId(Long id) {
    this.id = id;
  29⊖
  31
32
            6 references
public String getText() {
    return text;
  33⊖
  35
36
            1 reference
public void setText(String text) {
    this.text = text;
  37⊖
  38
   39
  40
  41⊖
            public int getStars() {
    return stars;
            }
  43
44
  45⊖
            public void setStars(int stars) {
   this.stars = stars;
            @ManyToOne
@JoinColumn(name = "customerId")
public String getCustomer() {
    return customer;
  49⊖
  51
52
53
54
55⊝
             public void setCustomer(String customer) {
  56
57
58
                  this.customer = customer;
            @ManyToOne
@JoinColumn(name = "productId")
public String getProduct() {
    return product;
}
  60
  61
  65⊕
             public void setProduct(String product) {
                                                                                          ^ | w': !! | 0 !! ! | 40 00 !
```



```
    Customer.java 
    □ Product.java

*CustomerContro
                                 CustomerReview.
                                                                                                                           J Order.java
                                                                                                                                                   OrderContro
       package com.promineotech.finalProjectApi.entity;
   3⊕ import java.util.Set;[]
  15
16
       12 references
public class Customer {
            2 references
private Long id;
  20
            private String firstName;
  21
            private String lastName;
  22
       private Address address;
23
  24
            private Set<CustomerReview> reviews;
            2 references
private Set<Order> orders;
  26
  28@
            @GeneratedValue(strategy = GenerationType.AUTO)
            3 references
public Long getId() {
    return id;
  31
            public void setId(Long id) {
   this.id = id;
  33@
  35
            public String getFirstName() {
    return firstName;
            public void setFirstName(String firstName) {
    this.firstName = firstName;
  39⊕
  41
  42⊖
            public String getLastName() {
   return lastName;
  43
  45⊖
            public void setLastName(String lastName) {
  46
47
                  this.lastName = lastName;
  48
  49⊖
            @OneToOne(cascade = CascadeType.ALL)
@JoinColumn(name = "id")
public Address getAddress() {
  50
51
                  return address;
            public void setAddress(Address address) {
   this.address = address;
  55
56
57
  58⊕
            @OneToMany(mappedBy = "customer")
public Set<Order> getOrders() {
  59
  60
                  return orders;
  62⊕
            public void setOrders(Set<Order> orders) {
   this.orders = orders;
  63
            @OneToMany(mappedBy = "customer")
public Set<CustomerReview> getReviews() {
  660
  68
                 return reviews:
            public void setReviews(Set<CustomerReview> reviews) {
  700
                  this.reviews = reviews;
  72
                                                                                          Writable
                                                                                                                       Smart Insert 23 · 29
```



```
J Prod

    *Address.java 
    □ OrderController

    CustomerReview.
    Customer.java

                                                                                                             Product.java
                                                                                                                                                            J Order.java
    package com.promineotech.finalProjectApi.entity;
  3⊕ import javax.persistence.Entity:[]
11
12 @Entity
4 references
13 public class Address {
                2 references
private Long id;
2 references
private String street;
2 references
   16
                 private String city;
   18
                 private String state;
  private Stri
private Stri
de all sonIgnore
preference
                  private String zip;
                 private Customer customer;
               @Id
@GeneratedValue(strategy = GenerationType.AUTO)
                3 references
public Long getId() {
    return id;
}
 OGeneratedValue(strategy = GenerationTy;
3 references
public Long getId() {
return ld;
}
28
}
29
public void setId(Long id) {
this.id = id;
}
31
public String getStreet() {
return street;
}
}
32
public void setStreet(String street) {
this.street = street;
}
40
public String getCity() {
return city;
}
41
public String getCity() {
return city;
}
42
public string getCity() {
return city;
}
44
45
public void setCity(String city) {
this.city = city;
}
47
this.city = city;
}
48
2 references
public String getState() {
                 2 references
public String getState() {
    return state;
  580 51

51

52

53

540 55

55

56

60

61

620 63

64

65

66 67

68

69

710 72

73

74
                public void setState(String state) {
   this.state = state;
                public String getZip() {
   return zip;
                public void setZip(String zip) {
   this.zip = zip;
                @OneToOne(mappedBy = "address")
public Customer getCustomer(Customer customer) {
    return customer;
                 public void setCustomer(Customer customer) {
   this.customer = customer;
                  }
                                                                                                                                                            Writable Smart Insert 11:1
```





```
CustomerReview.

Customer,java

OrderRepository

Order,java

*Address,java

AddressReposito

AddressReposito

Customer

package com.promineotech.finalProjectApi.repository;

import org.springframework.data.repository.CrudRepository;

import com.promineotech.finalProjectApi.entity.Customer;

public interface CustomerRepository extends CrudRepository
```





```
package com.promineotech.finalProjectApi.util;
public enum SustainabilityProceeds {
     AutoGiveback(.10);
     2 references
     private double proceed;
     SustainabilityProceeds(double proceeds, double proceed) {
          this.proceed = proceed;
     public double getProceed() {
         return proceed;
     5 references
     int choice = 0;
     while (choice != 4) {
          showMenu();
         choice = getUserChoice();
if (choice == 1) {
               showChoices();
          } else if (choice == 2) {
               addAdditional10();
          } else if (choice == 3) {
          addAdditional20();
} else if (choice == 4) {
               System.out.println("Goodbye!");
          } else {
               System.out.println("Please select a valid option!");
          }
     1 reference
    public static void showMenu() {
    System.out.println("1) Show choices");
System.out.println("2) Add additional 10 percent");
System.out.println("3) Add additional 20 percent");
System.out.println("4) Exit");
     public static void addAdditionalProceed() {
         System.out.println("We automatically donate 10 percent of your purchase to the Rainforrest Alliance." you would like to add any additional proceeds please enter 1 to see option, or enter 4: ");
          String proceed = scanner.next();
          proceeds.add(proceed);
          System.out.println("Proceeds added: " + proceed);
     }
}
```