EECS 2311 Take Home Assignment

Team: Salon AI

Section: Z

Student: Gurjot

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End-to-End Manual Testing

User Story 3: Staff: Manage salon services

Test Case 1: Service Categorization

1. Login as staff member

2. Navigate to "Manage Services"

3. Add a new service

4. Assign the service to a specific category

5. Save the service

6. Navigate to the customer view of services

7. Verify the service appears under the correct category

Expected Result: Service is correctly categorized in both staff and customer views.

Test Case 2: Service Image Management

1. Login as staff

2. Navigate to "Manage Services"

3. Select an existing service

4. Replace the current image with a new one

5. Save changes

6. View the service details

Expected Result: New image should be displayed for the service.

Test Case 3: Service Availability Toggling

1. Login as staff

2. Navigate to "Manage Services"

3. Find an active service

4. Toggle the availability switch to "Unavailable"

5. Save changes

6. Login as customer

7. Browse services

Expected Result: Service should not appear in customer-facing service list.

Test Case 4: Bulk Service Management

1. Login as staff

2. Navigate to "Manage Services"

3. Select multiple services using checkboxes

4. Use bulk action dropdown to change category

5. Apply changes

6. Verify all selected services now appear in the new category

Expected Result: All selected services should be updated simultaneously.

Bug and Issue Reports

Bug 1: Service Duration Formatting

Summary: Service duration displays incorrectly in customer view.
Steps to Reproduce:

1. Login as staff

2. Create a service with duration of 90 minutes

3. View the service in customer interface

Expected Behavior: Duration should display as "1 hour 30 minutes".
Actual Behavior: Duration displays as "90 minutes" without conversion to hours.
Severity: Low

Bug 2: Service Category Deletion Issue

Summary: Deleting a service category that contains services causes system error.
Steps to Reproduce:

1. Login as staff

2. Create a category with at least one service

3. Attempt to delete the category

Expected Behavior: System should prevent deletion or prompt to reassign services.
Actual Behavior: System allows deletion, causing orphaned services or errors.
Severity: High

Code Review

Code Smells Checked

- Complicated conditional expressions

- Primitive obsession

- Data clumps

- Feature envy

- Message chains

- Middle man

- Divergent change

Code Smells Detected

1. **Complicated Conditional Logic in Service Display**

   The ServiceList component has complex nested conditional logic for filtering and displaying services.

   Recommendation: Extract filtering logic into separate utility functions and simplify component rendering.

2. **Data Clumps in Service Management**

   Service properties (name, price, duration, category) are always used together throughout the code.

   Recommendation: Create a proper Service class to encapsulate these related properties.

3. **Middle Man in ServiceCategoryManager**

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4. **Middle Man in ServiceCategoryManager**

   The ServiceCategoryManager class simply delegates to other classes without adding significant functionality.

   Recommendation: Either enhance the manager with meaningful behavior or remove it and directly use the underlying classes.

5. **Divergent Change in Service Controller**

   The ServiceController needs to be modified for multiple different reasons (adding services, changing categories, modifying images, etc.).

   Recommendation: Split the controller into more focused controllers with single responsibilities.

Additional Testing Notes

During testing, I observed that the service management functionality generally works well for basic operations, but becomes less reliable with edge cases and bulk operations. The user interface is intuitive for staff members, but some advanced features like bulk editing are not immediately obvious and could benefit from improved design.

The connection between service management and appointment booking is also not fully transparent - when a service is marked unavailable, existing appointments for that service are not properly handled.