

CAPSTONE PROJECT – WEB UI DEVELOPER FOUNDATION SKILLS

Case Study Description

Overview

Online Star is a supermarket that has various stores across the country. They deal with everything from electronics to books. Buoyed by the success of various ecommerce online stores like Amazon, Flipkart and others, they have also decided to build an online marketplace. Since running a successful ecommerce stores involves multiple challenges, from online inventory to last mile logistics, they have decided to do a soft launch with a Pilot approach. For the Pilot phase, they want to do a soft launch with limited products to enable them to learn before moving to the big leagues. Based on the experience they want to do a S.W.O.T and then launch their end-to-end ecommerce site.

The Store owner likes to maintain a list of products, which will help him to keep track of products in his stores. This application should help a store owner to

- Create a product
- Edit/Update product details
- Get the list of products present in his store with the product image
- Remove products from the store
- Searching a product from the store
- Filter products based on category using drag and drop

No of Requirements: - 5

Total Estimated Effort: 16 Hours

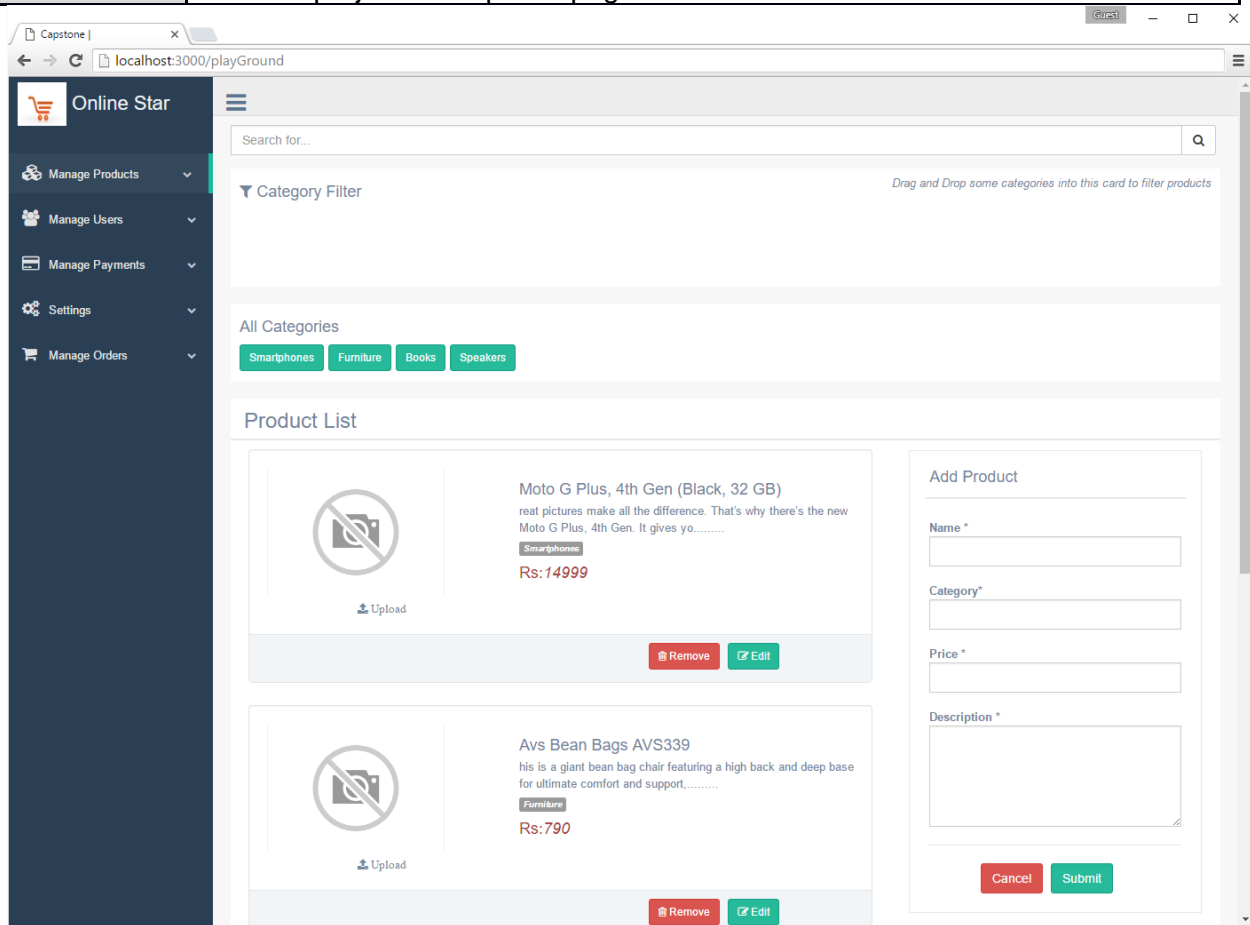
Achieve all the below said requirements using this high level design.

Requirement 1 - List and Remove Products

Problem Statement	<p>Develop a page which should display the list of each product as tiles with the product name, description, price, product image in the tile as shown below.</p> <p>Each product tile should consist of two rows.</p> <p>The first row will hold the product details. Split into two columns, The first column will have the product image. The second column will have the product Name as a large title text, Description as normal text, the Category in white text with a grey background and the Price as a Large Red Italics text.</p> <p>The second row should have an edit and remove button. On clicking the edit button toggle the Form to Edit mode. On clicking the remove button, get a confirmation from the user in the form of a modal dialog box and make the appropriate API call using AJAX to remove the specific product.</p>
Effort	6 Hours
Technologies Tested	<p>Use the following technologies to build the requirement</p> <p>HTML5</p> <ul style="list-style-type: none">• Design a table with name, description, cost, category of the products as columns.• Provide a button to remove a product. <p>CSS3</p> <ul style="list-style-type: none">• Apply background image for the HTML Body with appropriate class name• Apply background color for the header.• Apply transition effect when a product is selected. <p>Bootstrap</p> <ul style="list-style-type: none">• Make a responsive bordered table.• Make the page responsive. <p>JavaScript</p> <ul style="list-style-type: none">• Validate the HTML form using JavaScript code <p>jQuery</p> <ul style="list-style-type: none">• Add controls to the buttons.• Iterate and display the data in the product list table.• Toggle the buttons (save or update) based on the action(save or edit).

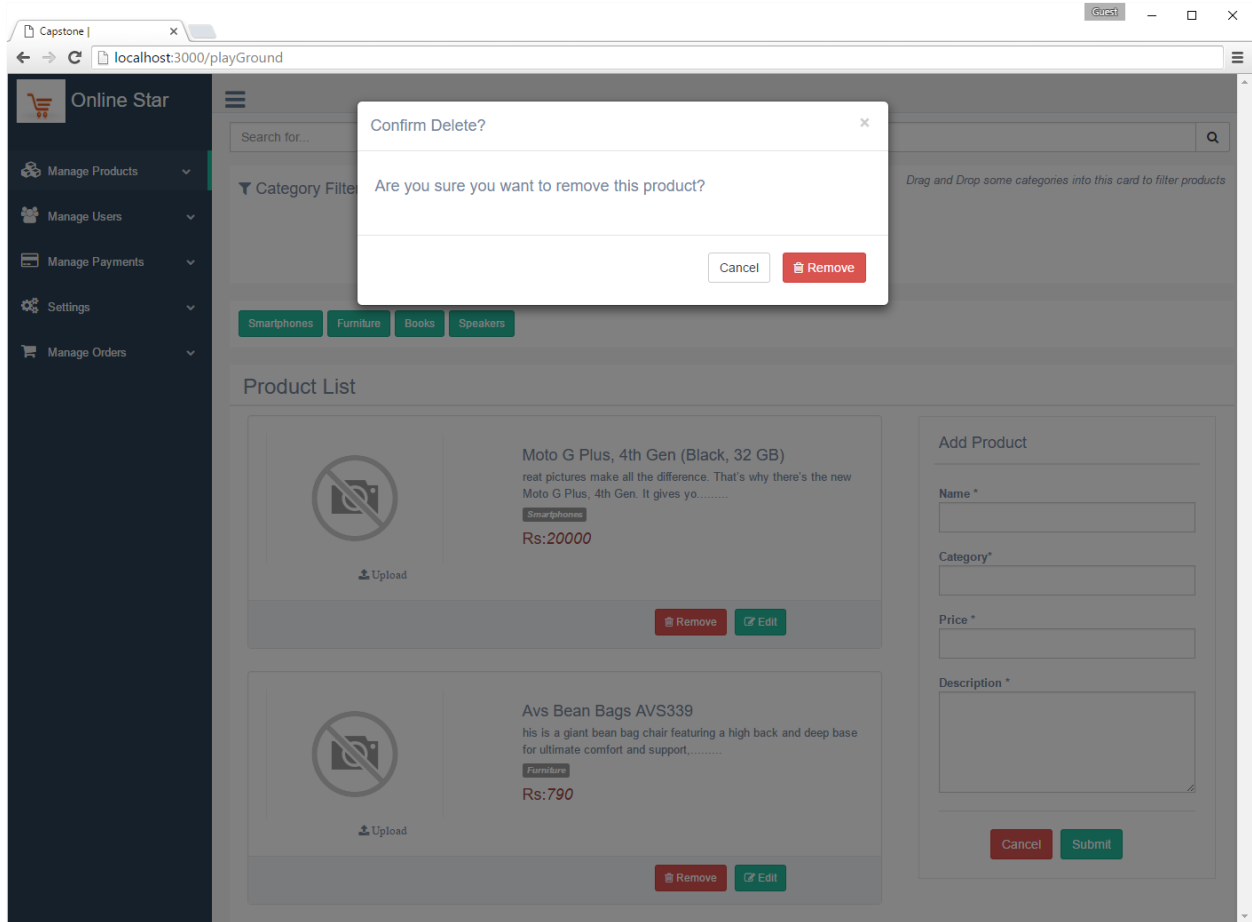
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	AJAX <ul style="list-style-type: none">• Call the API's for save, edit, delete products using AJAX.
Server Side Connections	API Calls <ul style="list-style-type: none">• To get the list of products –<ul style="list-style-type: none">○ Call: <code>http://localhost:3000/products</code>○ method GET• To Remove a product<ul style="list-style-type: none">○ Call: <code>http://localhost:3000/product/<id></code>○ method DELETE○ In the place of the <code><id></code> substitute the id of the product
Files to Code	<ol style="list-style-type: none">1. <code><project root>/public/res/scripts/index.js</code>2. <code><project root>/public/pages/index.html</code>



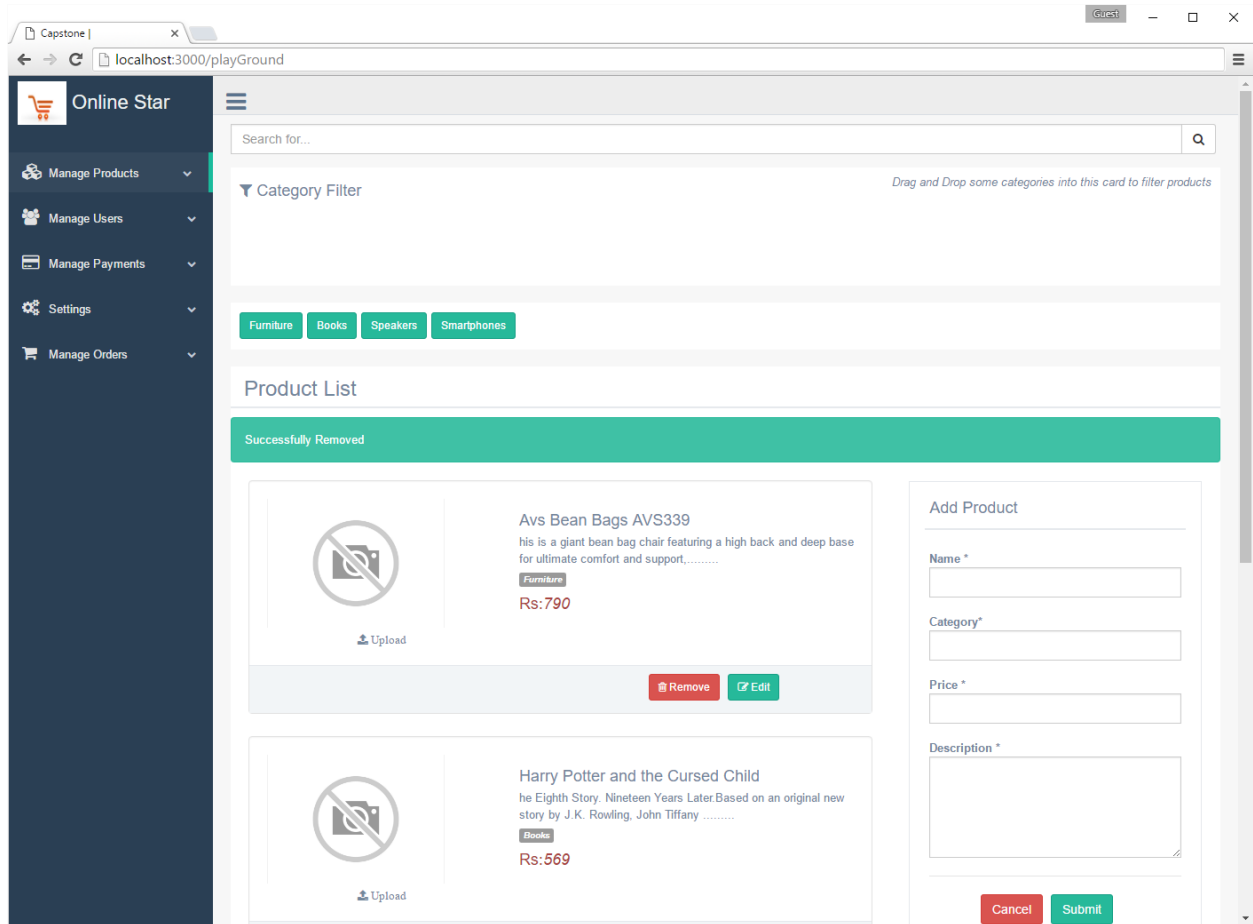
Products List

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Product Remove

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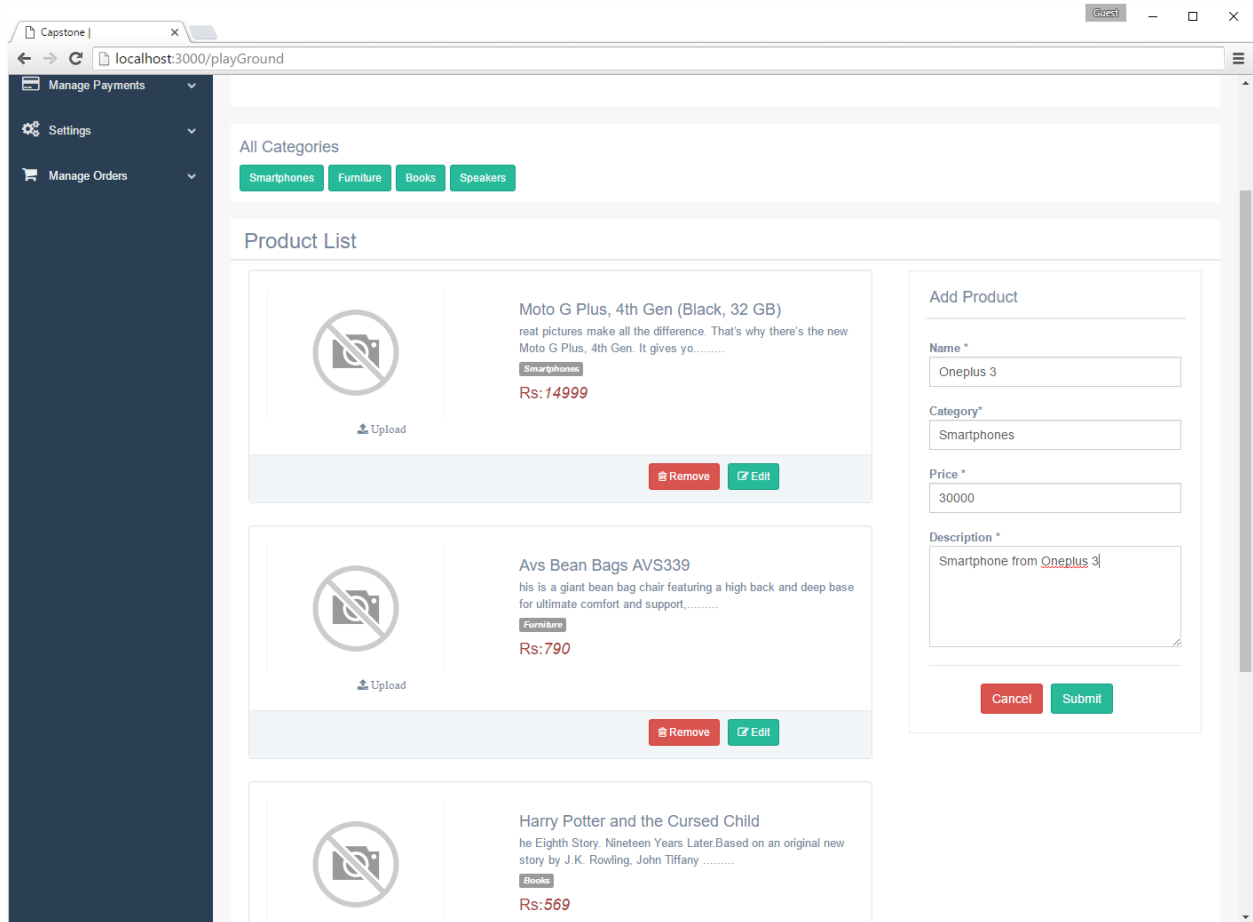
Product Removed Successfully

Requirement 2 - Create and Update Products

Problem Statement	<p>Create a form to add and edit products. The same form is to be used for both the Add and Edit functionality. The mode is to be toggled based on the action the user wants to perform.</p> <p>The Add/Edit form should be on the right side of the page, this form should get the Name of the product, Category, Description and the Price. All fields are mandatory.</p> <p>By Default the form will be in Add mode. When an user clicks on the Edit button for a product, the form mode should be changed to edit and the product information must be populated into the form. The Save button should now read Update.</p> <p>On Save or Update validate the form using jQuery and make the corresponding API call using AJAX to create/update the product in the backend database.</p> <p>After a successful update toggle the form back to Add mode.</p>
Effort	4 Hours
Technologies Tested	<p>Use the following technologies to build the requirement</p> <p>HTML5</p> <ul style="list-style-type: none">• Create a form to add products.• Use the same form to edit an existing product. <p>Bootstrap</p> <ul style="list-style-type: none">• Make the page responsive. <p>JavaScript</p> <ul style="list-style-type: none">• Validate the HTML form using JavaScript code <p>jQuery</p> <ul style="list-style-type: none">• Add controls to the buttons.• Toggle the buttons (save or update) based on the action(save or edit). <p>AJAX</p> <ul style="list-style-type: none">• Call the API's for save, edit, delete products using AJAX.
Server Side Connections	<p>API Calls</p> <ul style="list-style-type: none">• Create a product<ul style="list-style-type: none">○ Call: http://localhost:3000/product○ method POST.

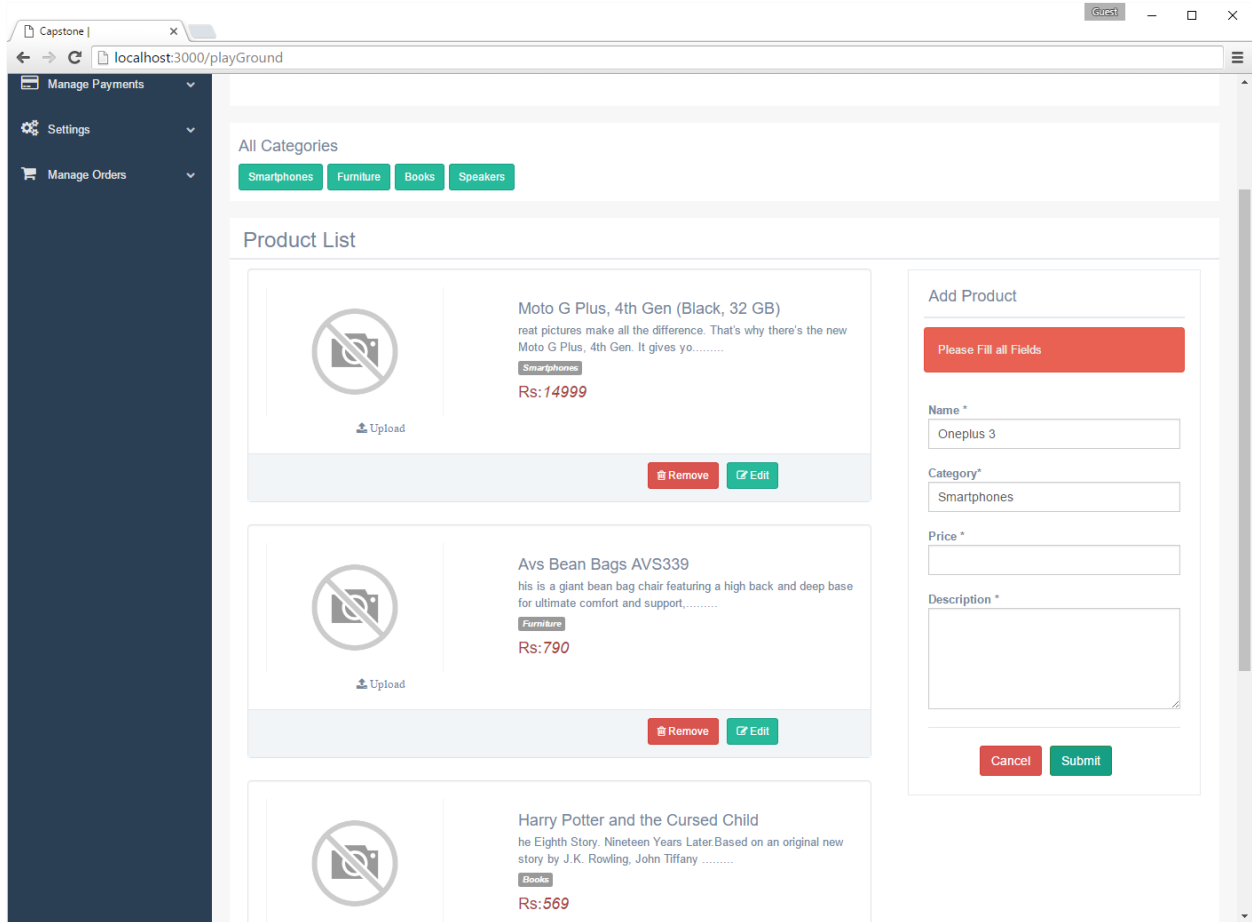
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	<ul style="list-style-type: none">• Edit a product<ul style="list-style-type: none">○ Call: <code>http://localhost:3000/product/<id></code>○ method PUT○ <code><id></code> is the id of the Product
Files to Code	<ol style="list-style-type: none">1. <code><project root>/public/res/scripts/index.js</code>2. <code><project root>/public/pages/index.html</code>



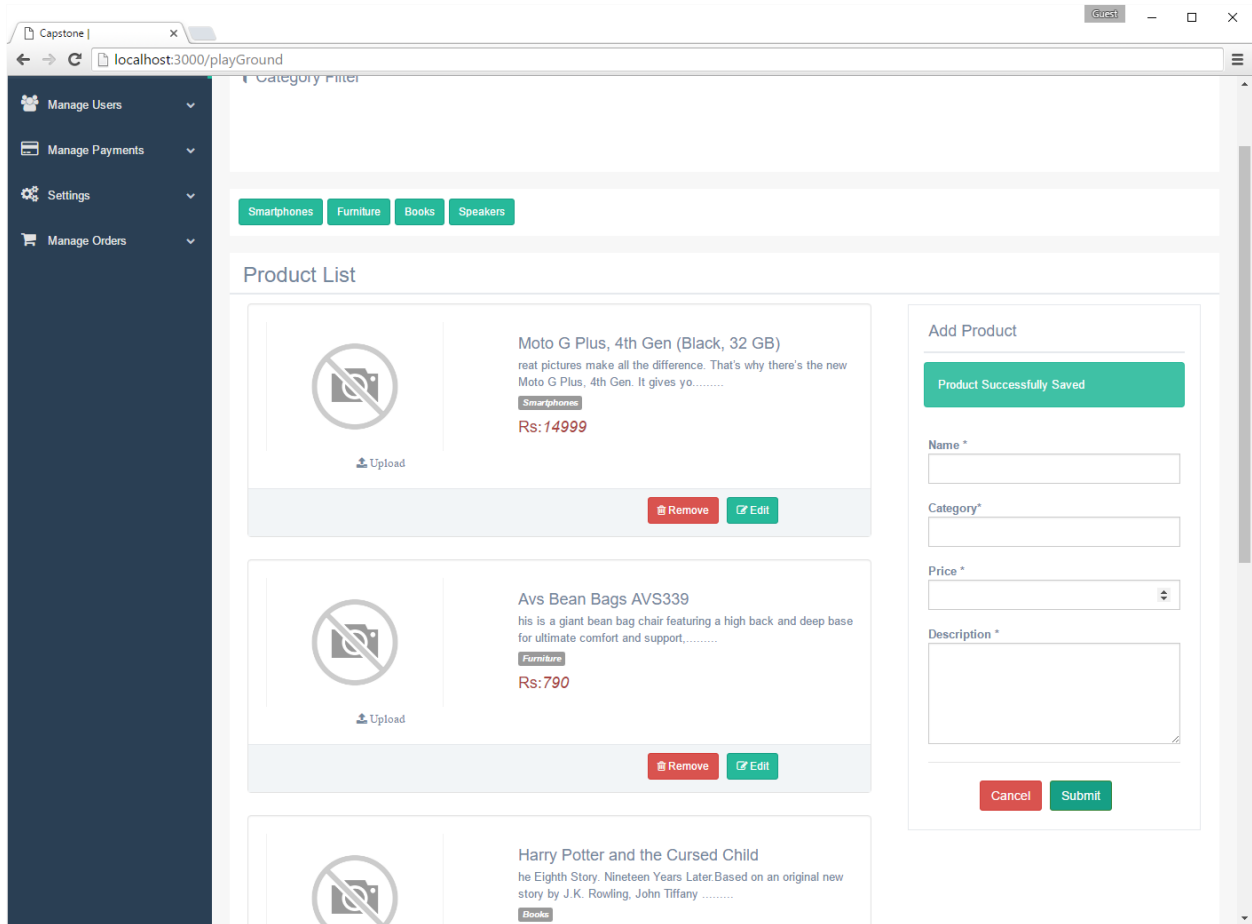
Adding a Product

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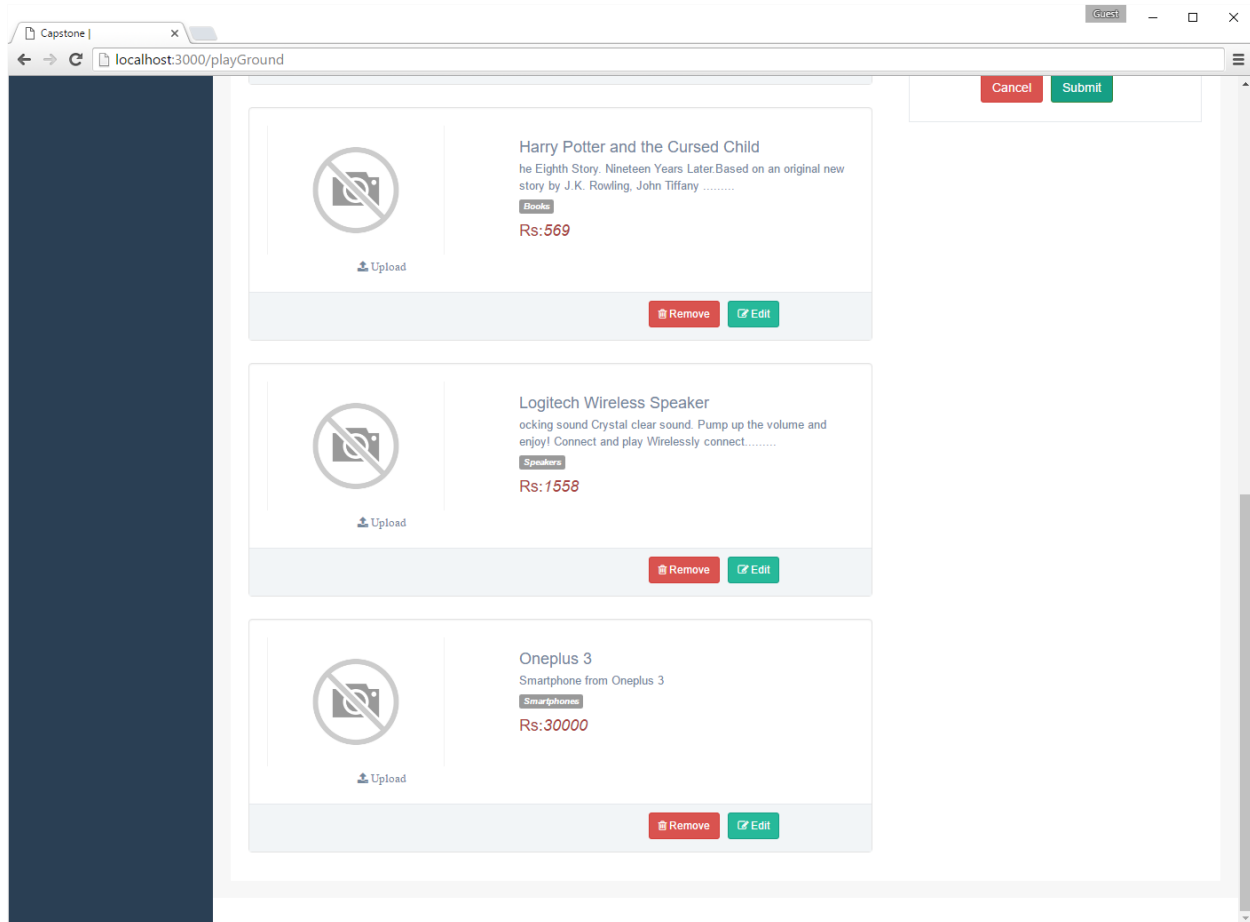
Error Message on Form Validation

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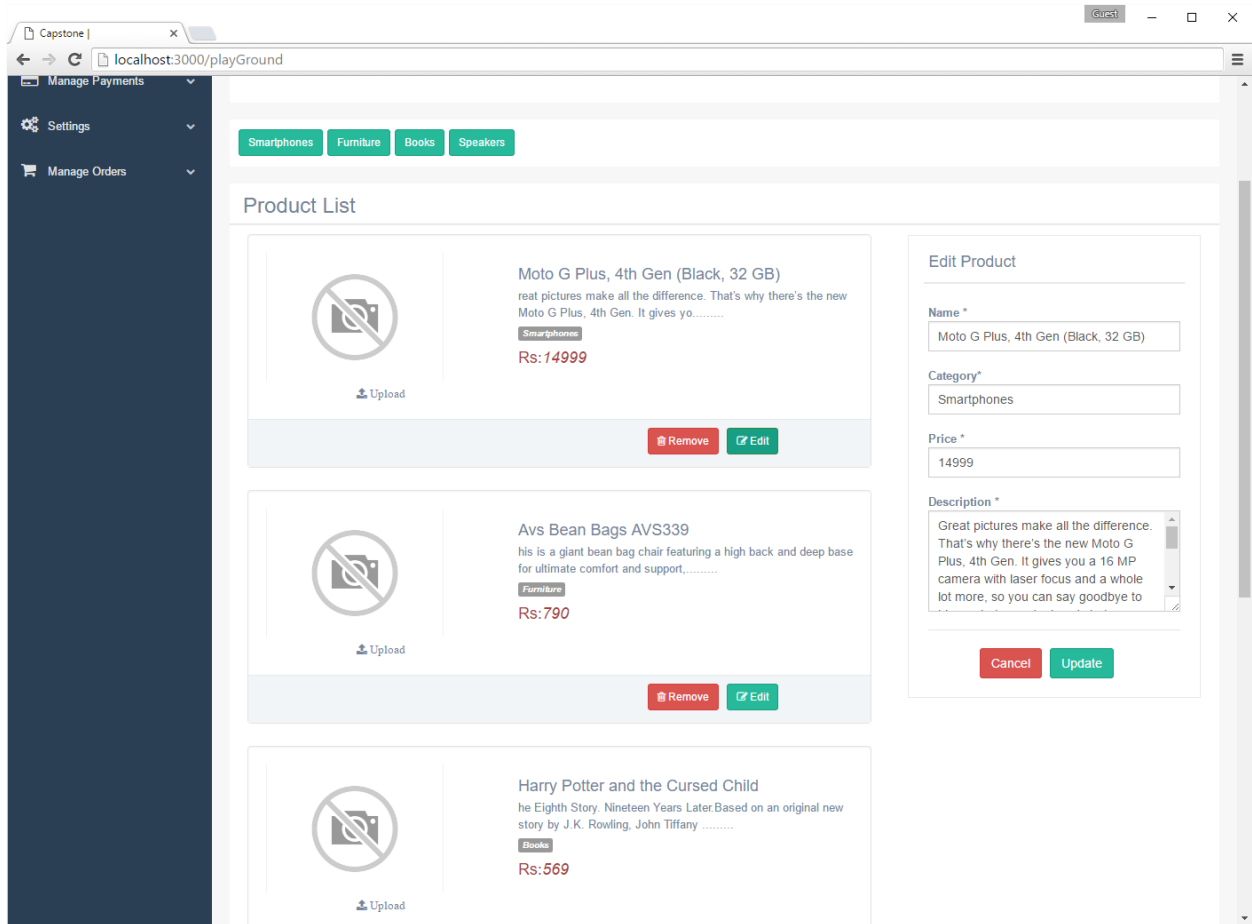
Successfully Added a Product

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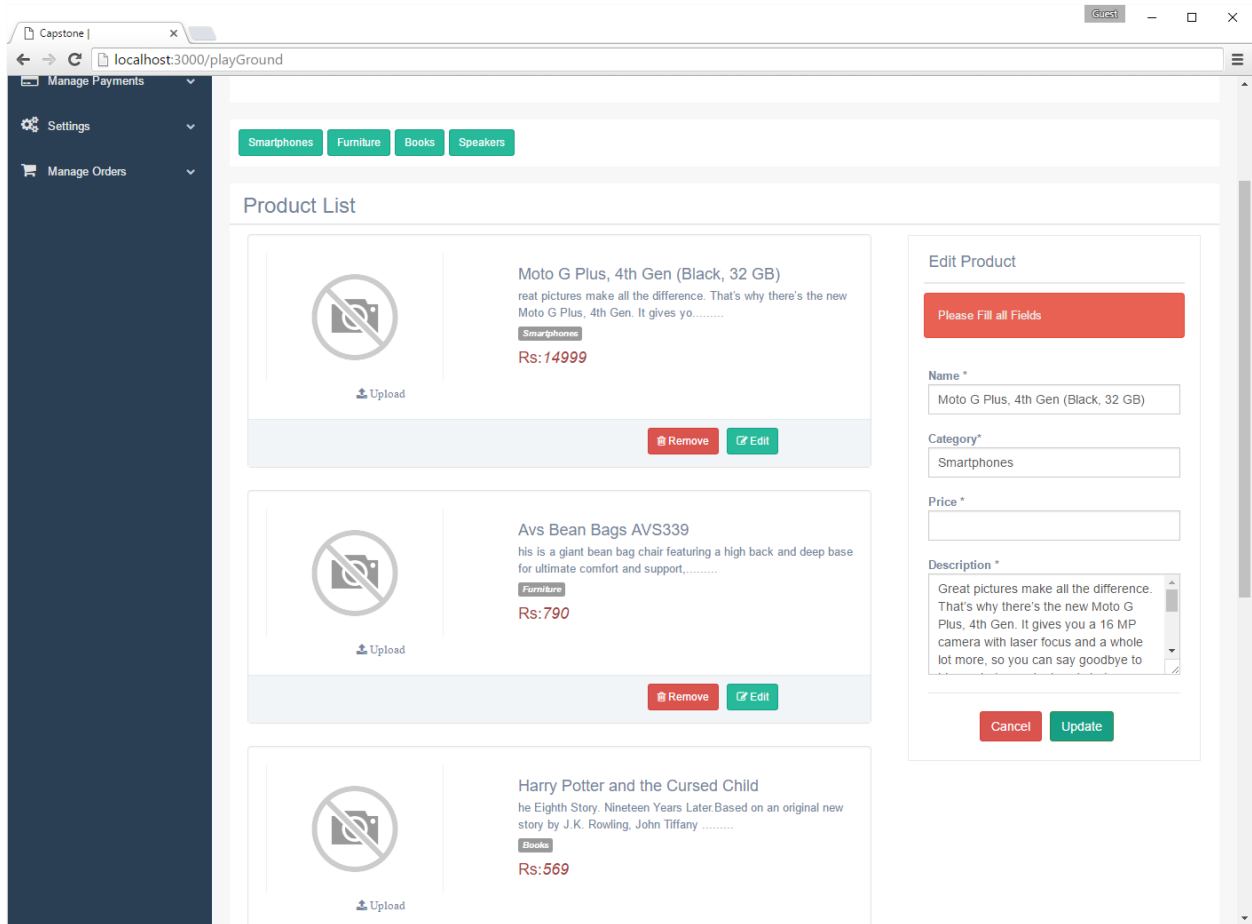
New Product in the List

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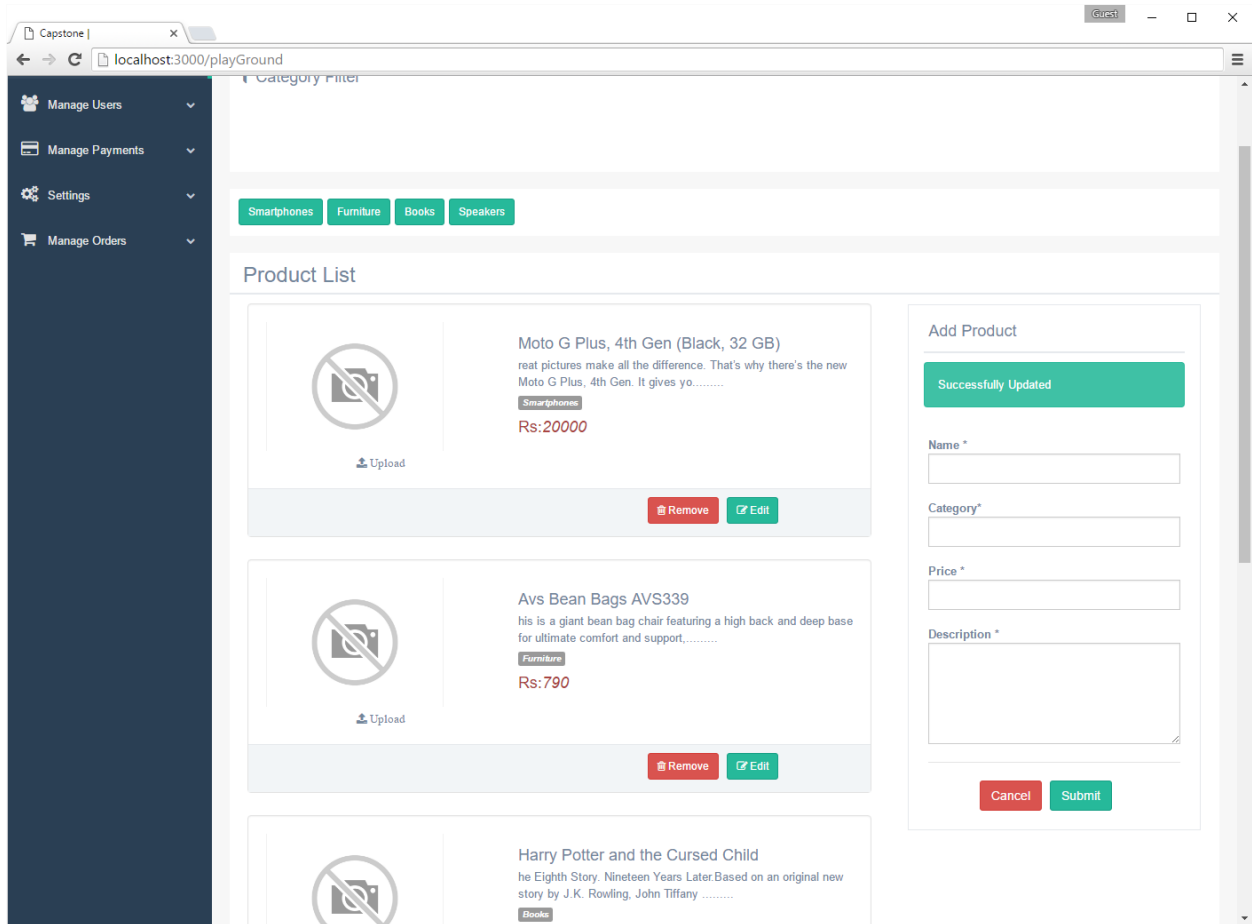
Same form in Edit Mode

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Error Message on Form Validation

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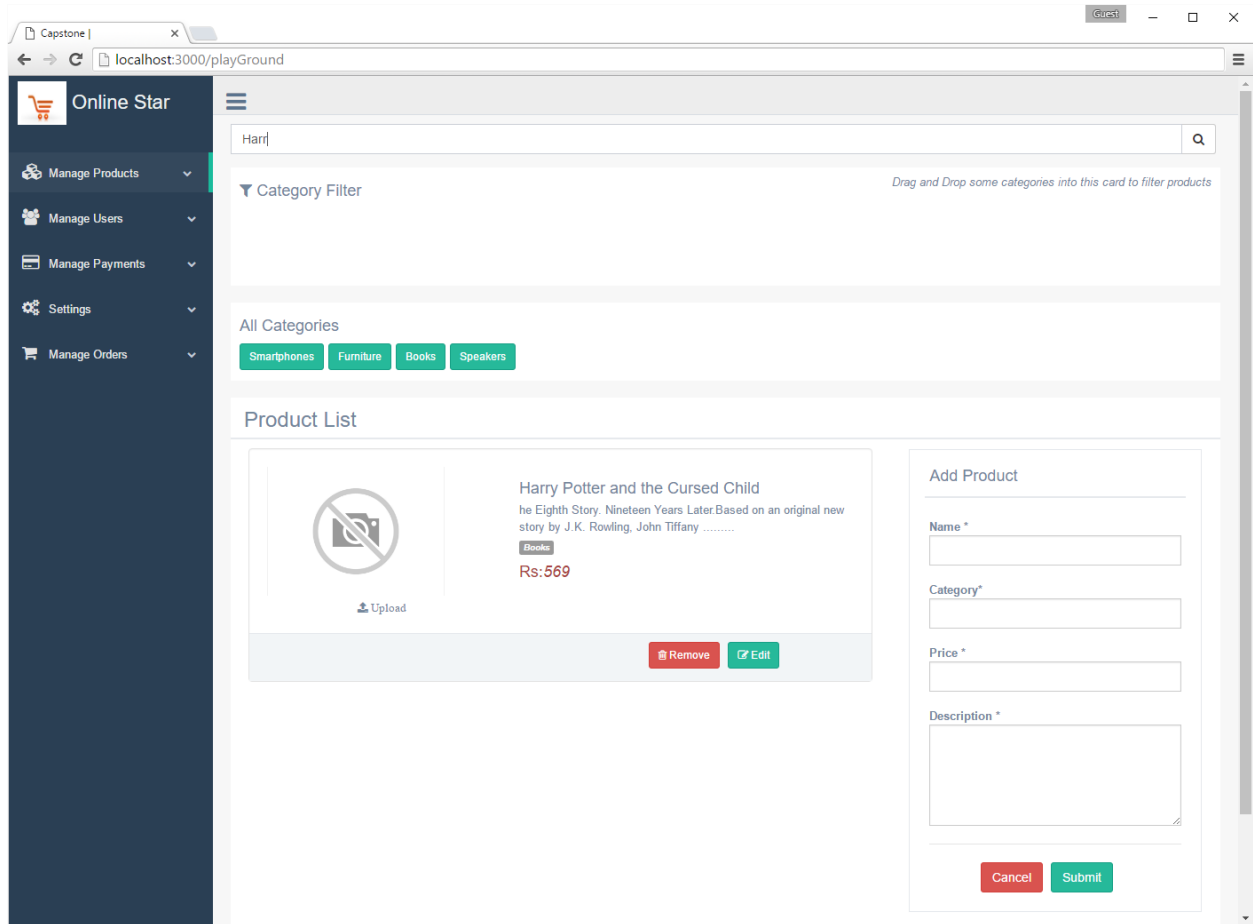


Successfully Updated Product - Form is back in Add Mode

Requirement 3 - Free Text Search

Problem Statement	<p>Create a free text search box on the top of product list. The free text search should help the store owner to search and filter the products based on the text.</p> <p>Implement the filter on all the fields available for a product. Name, Category, Price and Description. All products which have the search string in any of the above fields are to be listed. You should start filtering the products as and when the user starts typing</p> <p>The HTML Code for the Search input box and button are already coded in. You have implement the functionality in jQuery</p>
Effort	2 Hours
Technologies Tested	<p>Use the following technologies to build the requirement</p> <p>Bootstrap</p> <ul style="list-style-type: none">• Make a responsive bordered table.• Make the page responsive.• Display the list of categories in list group.• Add a nav bar on the top with a search box. <p>jQuery</p> <ul style="list-style-type: none">• Implement a filter on all fields of Products
Server Side Connections	No API Calls required for this requirement.
Files to Code	1. <project root>/public/res/scripts/index.js

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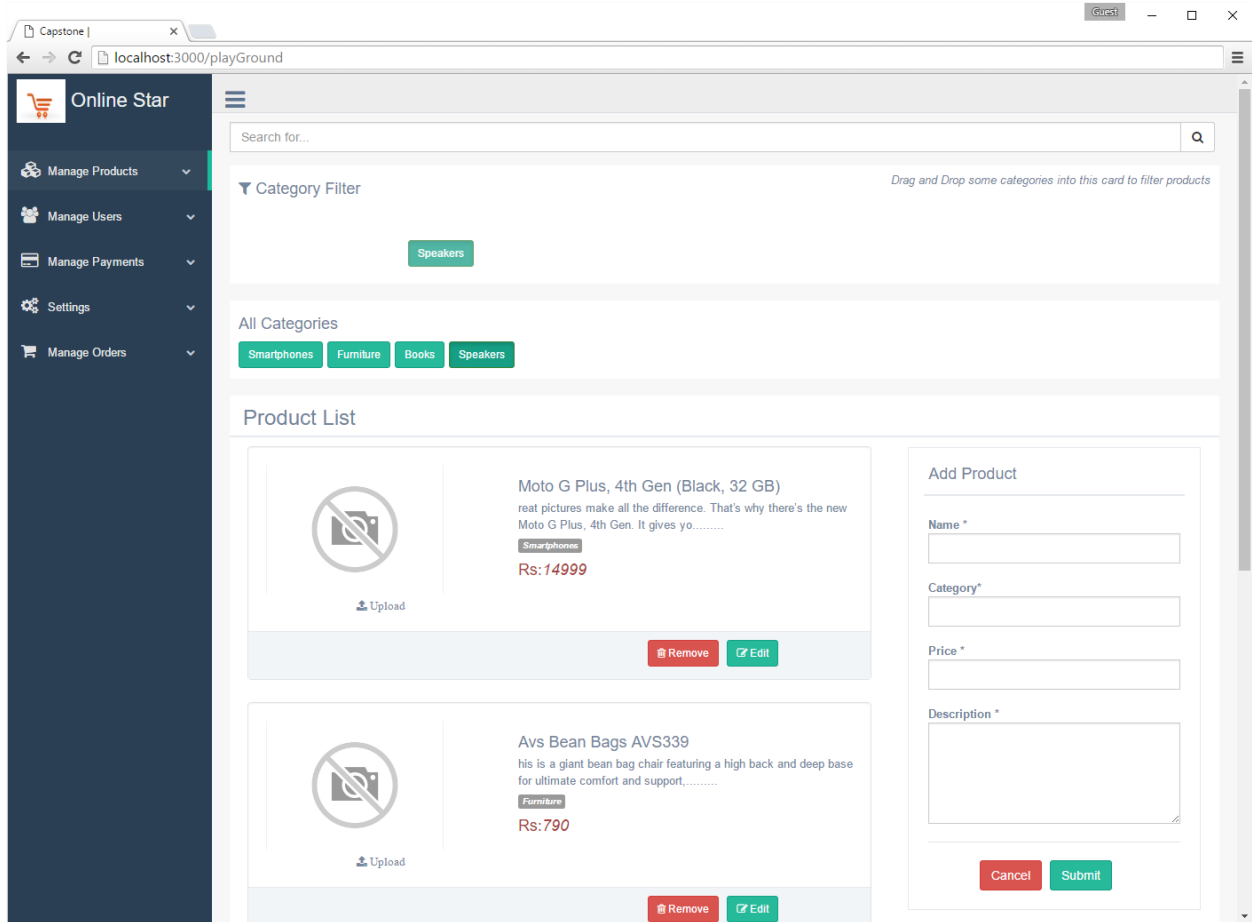


Free Text Search

Requirement 4 - Drag and Drop Category Filter

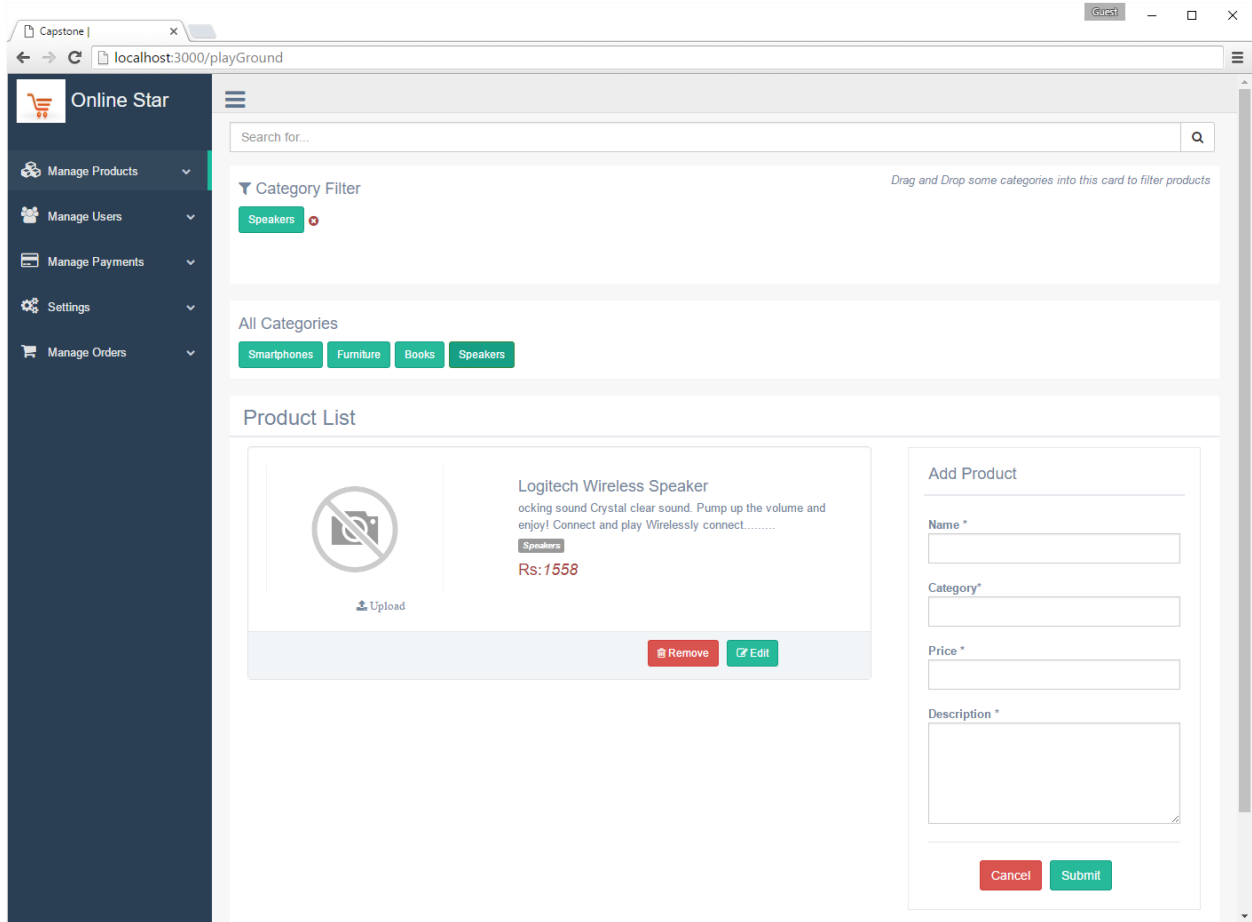
Problem Statement	<p>Immediately below the Free text search box, create two boxes for the full width of the page, one below the other.</p> <p>The first box will be used as the drop site for filter categories and the second box will list all the categories available.</p> <p>Display the categories as Buttons in the Second box. The user must be able to drag and drop each of the buttons into the Category Filter box.</p> <p>When a button is dropped, it should be displayed in the Category Filter along with a small x icon (use the Font Awesome <i>Times</i> Icon). The products list should be filtered to show all the products from the chosen categories.</p> <p>On clicking the x icon the category should be removed from the filter.</p>
Effort	4 Hours
Technologies Tested	<p>Use the following technologies to build the requirement</p> <p>HTML5 /CSS 3</p> <ul style="list-style-type: none"> Design drop down and category filter box <p>Bootstrap</p> <ul style="list-style-type: none"> Make a responsive bordered table. Make the page responsive. Display the list of categories in list group. Add a nav bar on the top with a search box. <p>JQuery</p> <ul style="list-style-type: none"> Add controls to button Implement drag and drop functionality
Server Side Connections	No API Calls required for this requirement.
Files to Code	<ol style="list-style-type: none"> <project root>/public/res/scripts/index.js <project root>/public/pages/index.html

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Category being dragged

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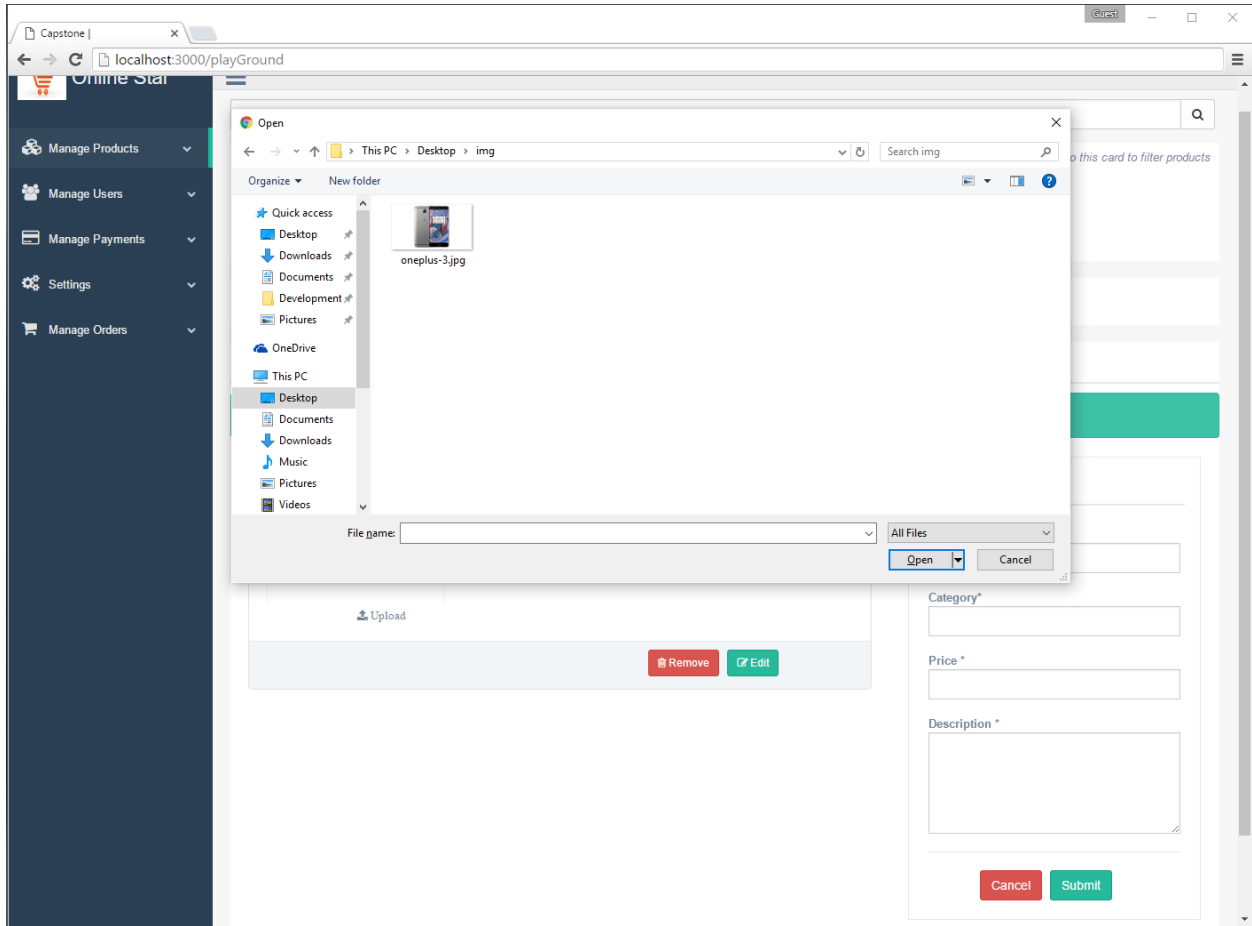


On Drop show the button with a x icon and filter the products list

Requirement 5 - Product Image Upload

Problem Statement	<p>The user should have the ability to change the product image. Implement this feature in a two step process.</p> <p>Step-1 When the user clicks on the current product image, open the file selection box for the user to choose a new image. Preview the chosen image in the product tile.</p> <p>Step-2 If the user is satisfied with the new image, he/she will click the upload button. Make the corresponding API Call to upload the image file to the server and update the database.</p> <p>If the user clicks on the upload button without selecting an image. Show an error.</p>
Effort	4 Hours
Technologies Tested	<p>Use the following technologies to build the requirement</p> <ul style="list-style-type: none">- HTML5- JQuery- AJAX
Server Side Connections	<p>API Calls</p> <ul style="list-style-type: none">• Update product Image<ul style="list-style-type: none">○ Call: <a href="http://localhost:3000/product/<id>/ProductImg">http://localhost:3000/product/<id>/ProductImg○ method PUT○ <id> is the id of the product
File to Code	<ol style="list-style-type: none">1. <project root>/public/res/scripts/index.js2. <project root>/public/pages/index.html

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File open dialog for Choosing a new Image

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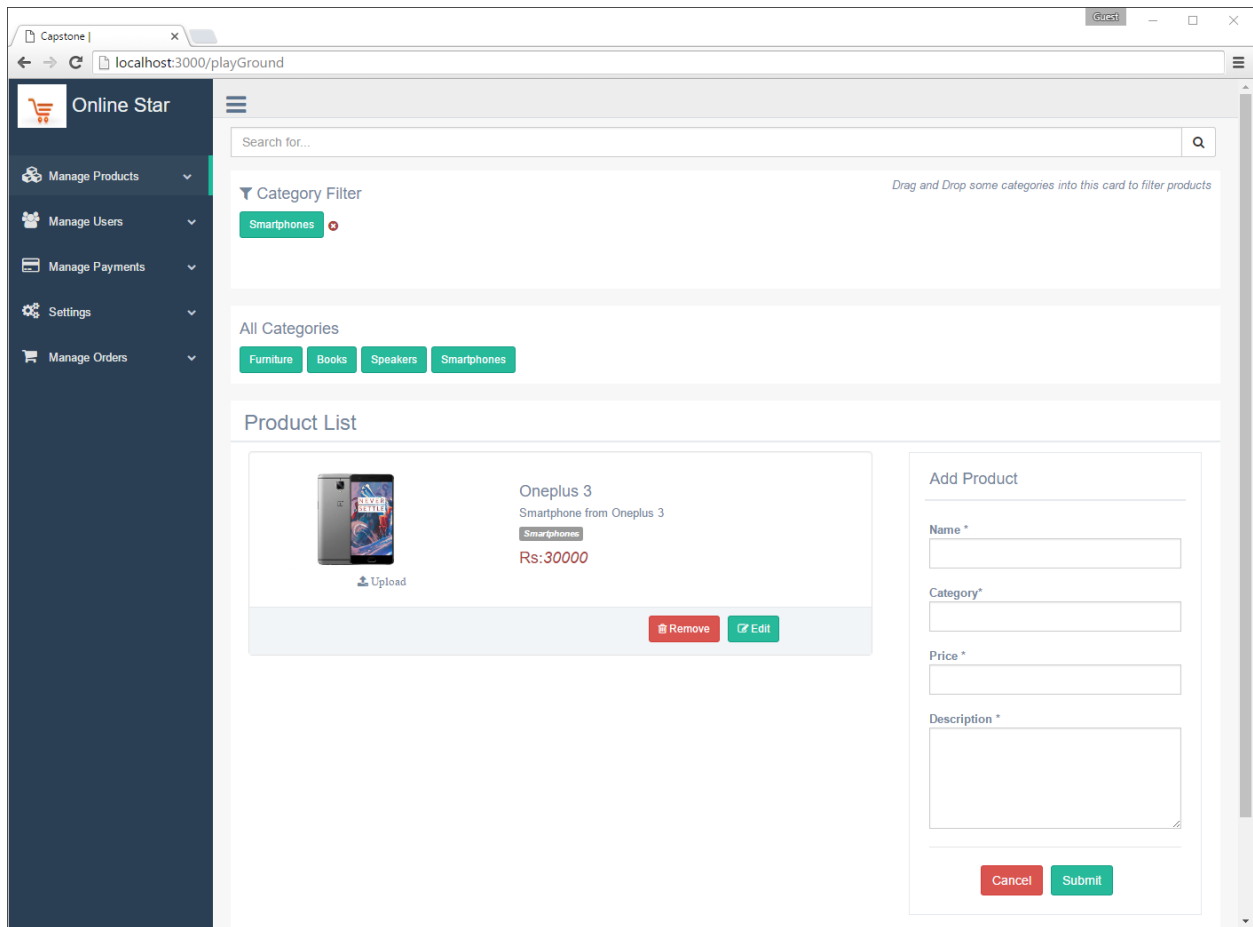


Image Preview

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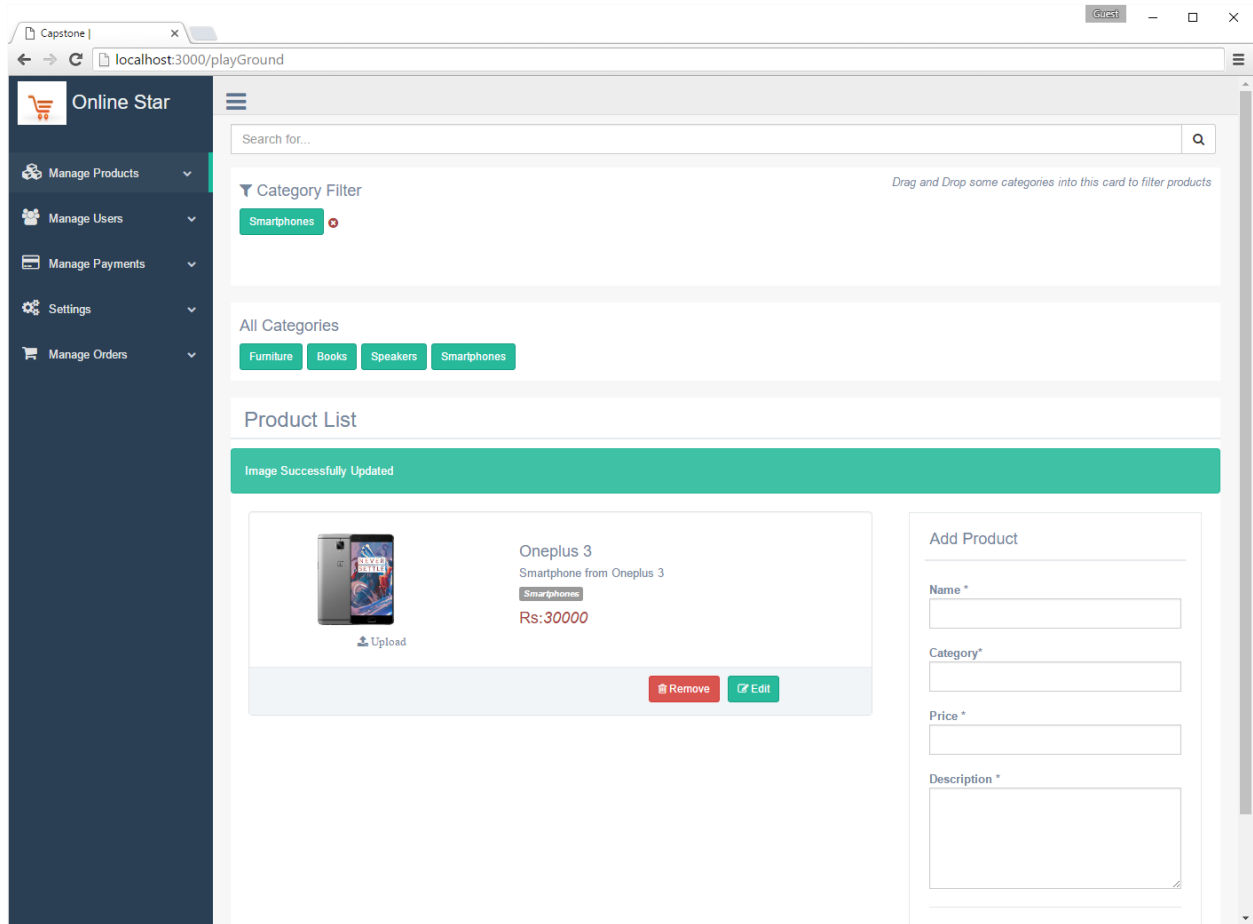
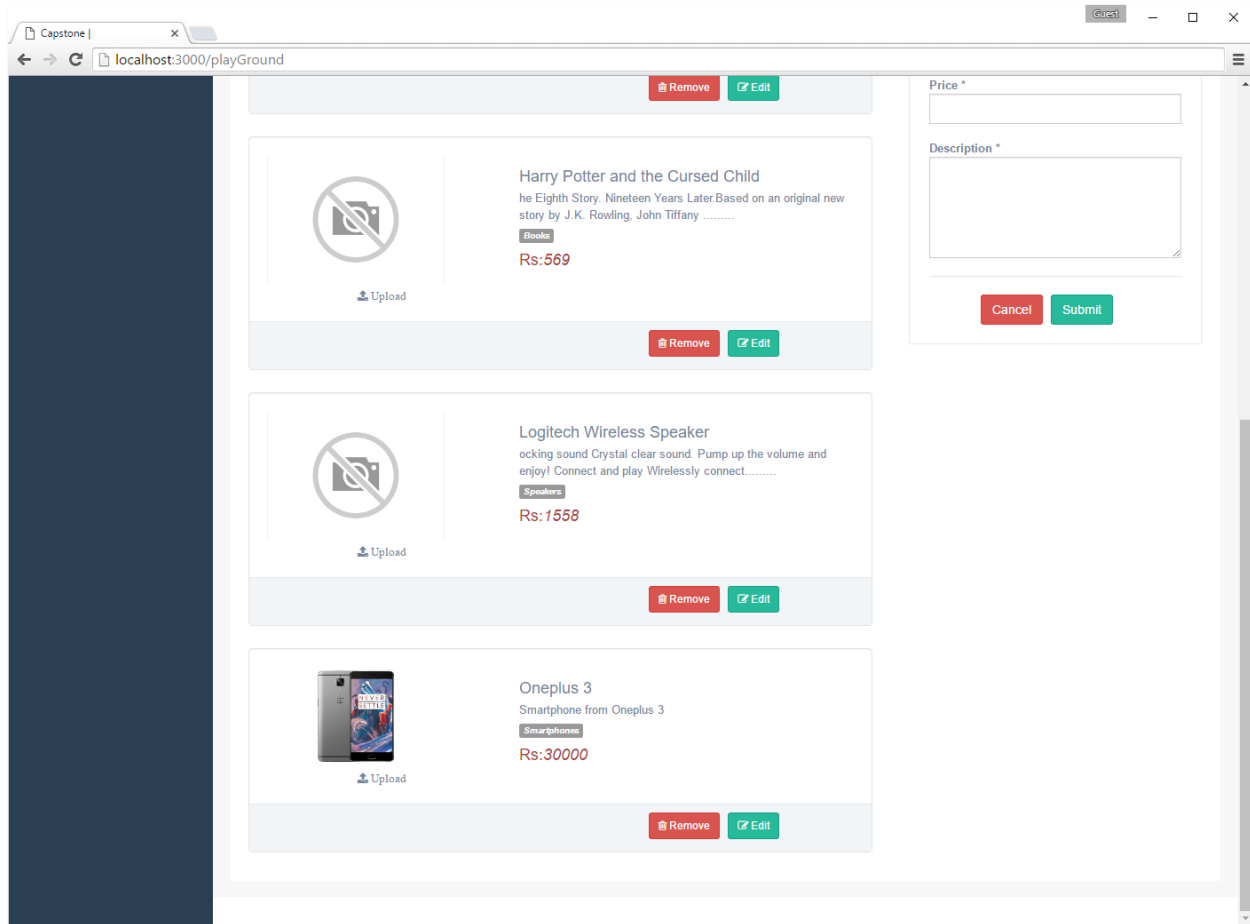


Image uploaded

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Product with the new image appearing in the list on screen refresh

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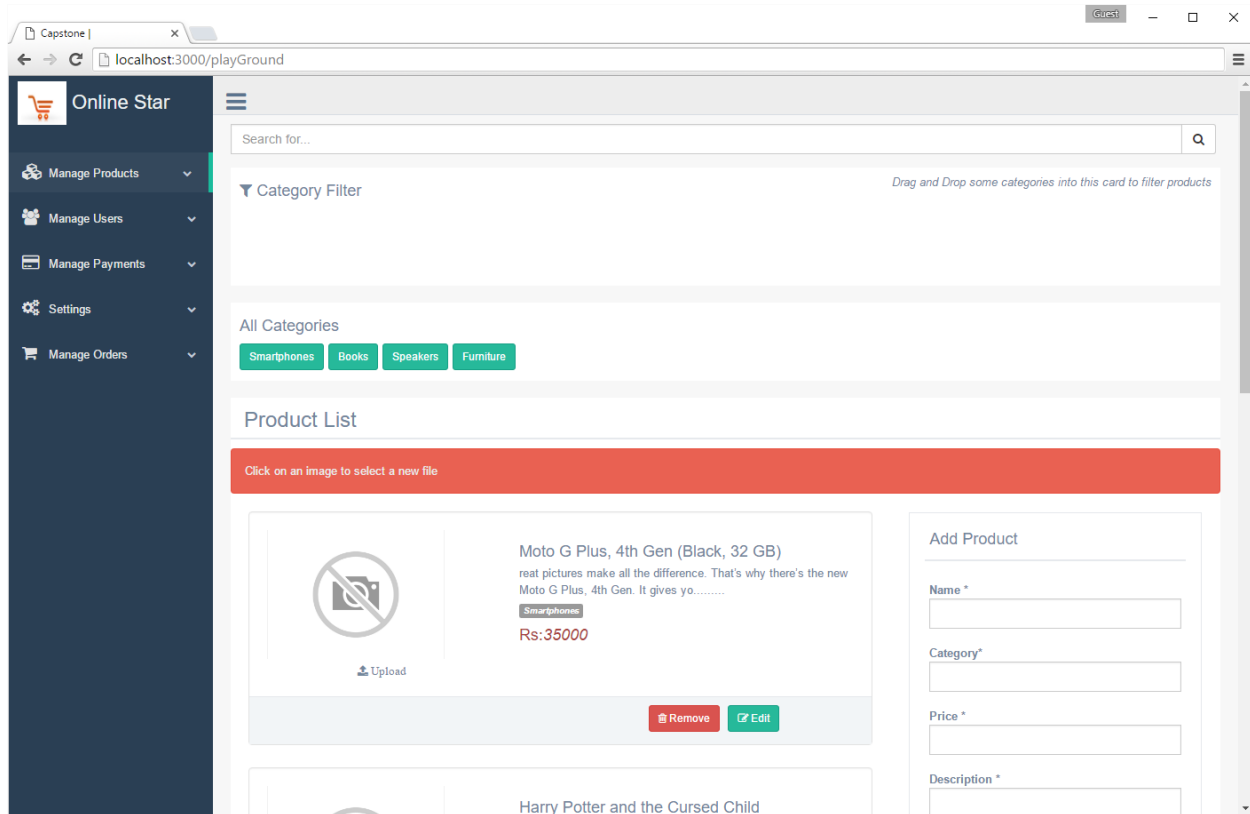


Image upload error message