Lab No: 7 Form Processing using Django – Part I

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Develop a Web Application for Grocery Checklist Generation as shown in the figure below. It must have checkboxes which must be populated on page load listing grocery items. On clicking the Add Item button the selected Items and their prices have to be displayed in a Table. Set the borderstyle and border width for the table and its cells.

```python
from django.contrib import admin
from django.urls import path, include

urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('grocery_app.urls')),  # Add this
]
```

Lab 7 > grocery_project > grocery_app > urls.py > ...

```python
from django.urls import path
from . import views

urlpatterns = [
    path('', views.grocery_list, name='grocery_list'),
]

```

Lab 7 > grocery_project > grocery_app > forms.py > ...

```python
from django import forms

GROCERY_ITEMS = [
    ('Rice', 'Rice - ₹50/kg'),
    ('Flour', 'Flour - ₹40/kg'),
    ('Milk', 'Milk - ₹30/litre'),
    ('Eggs', 'Eggs - ₹5 each'),
    ('Fruits', 'Fruits - ₹100/kg'),
]

class GroceryForm(forms.Form):
    items = forms.MultipleChoiceField(
        choices=GROCERY_ITEMS,
        widget=forms.CheckboxSelectMultiple,
        required=True,
        label="Select Grocery Items",
    )

```

Lab 7 > grocery_project > grocery_app > views.py > ...

```python
from django.shortcuts import render, redirect
from .forms import GroceryForm

# Prices of the grocery items
PRICES = {
    "Rice": 50,
    "Flour": 40,
    "Milk": 30,
    "Eggs": 5,
    "Fruits": 100,
}

def grocery_list(request):
    form = GroceryForm()

    if 'cart' not in request.session:
        request.session['cart'] = []  # Initialize session cart

    cart = request.session.get('cart', [])  # Retrieve cart

    if request.method == "POST":
        form = GroceryForm(request.POST)
        if form.is_valid():
            selected_items = form.cleaned_data['items']
            cart = [{"name": item, "price": PRICES[item]} for item in selected_items]
            request.session['cart'] = cart  # Store in session
            return redirect('grocery_list')

    total_price = sum(item["price"] for item in cart)  # Calculate total cost

    return render(request, "grocery_app/grocery.html", {
        "form": form,
        "cart": cart,
        "total_price": total_price,
    })

```

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Grocery Checklist</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            background-color: #f8f9fa;
            margin: 20px;
            text-align: center;
        }
        .container {
            max-width: 500px;
            margin: auto;
            padding: 20px;
            background: white;
```

```
            border-radius: 10px;
            box-shadow: 0px 4px 8px rgba(0,0,0,0.1);
        }
        h1 {
            color: #343a40;
        }
        form {
            text-align: left;
        }
        input[type="checkbox"] {
            margin-right: 10px;
        }
        button {
            background: #007bff;
            color: white;
            padding: 10px;
            border: none;
            border-radius: 5px;
            cursor: pointer;
        }
        button:hover {
            background: #0056b3;
        }
        table {
            width: 100%;
            margin-top: 20px;
            border-collapse: collapse;
        }
        table, th, td {
            border: 2px solid #343a40;
            padding: 10px;
            text-align: left;
        }
        th {
            background: #343a40;
            color: white;
        }
        .total {
            font-size: 1.2rem;
            font-weight: bold;
            margin-top: 10px;
        }
    </style>
</head>
<body>

    <div class="container">
        <h1>Grocery Checklist</h1>
```

```
        <form method="post">
            {% csrf_token %}
            {{ form.as_p }}
            <button type="submit">Add Item</button>
        </form>

        {% if cart %}
        <table>
            <tr>
                <th>Item</th>
                <th>Price (₹)</th>
            </tr>
            {% for item in cart %}
            <tr>
                <td>{{ item.name }}</td>
                <td>{{ item.price }}</td>
            </tr>
            {% endfor %}
        </table>
        <p class="total">Total Price: ₹{{ total_price }}</p>
        {% endif %}
    </div>

</body>
</html>
```