

Deepikareddy

Sec no:11

2300031389

Pfsd End Sem Lab :

Models:

```
from django.db import models
```

```
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```

```
class UploadedFile(models.Model):
```

```
    file = models.FileField(upload_to='uploads/')
```

```
    uploaded_at = models.DateTimeField(auto_now_add=True)
```

```
    total_sales = models.DecimalField(max_digits=10, decimal_places=2, null=True,
blank=True)
```

```
    average_sales = models.DecimalField(max_digits=10, decimal_places=2, null=True,
blank=True)
```

```
    def __str__(self):
```

```
        return f"File uploaded on {self.uploaded_at.strftime('%Y-%m-%d %H:%M:%S')}}"
```

Forms:

```
from django import forms
```

```
class UploadFileForm(forms.Form):
```

```
    file = forms.FileField()
```

Views:

```
from django.shortcuts import render
```

```
import base64
```

```
from io import BytesIO
```

```
import pandas as pd
```

```
from django.shortcuts import render
```

```
from .forms import UploadFileForm
```

```
def homepage(request):
```

```
    return render(request, 'homepage.html')
```

```

def upload_file(request, plt=None):
    if request.method == 'POST' and request.FILES['file']:
        file = request.FILES['file']
        df = pd.read_csv(file, parse_dates=['Date'], dayfirst=True)
        total_sales = df['Sales'].sum()
        average_sales = df['Sales'].mean()
        df['Month'] = df['Date'].dt.month
        monthly_sales = df.groupby('Month')['Sales'].sum()
        month_names = ['Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'July', 'Aug', 'Sep', 'Oct', 'Nov',
'Dec']
        monthly_sales.index = monthly_sales.index.map(lambda x: month_names[x - 1])
        plt.pie(monthly_sales, labels=monthly_sales.index, autopct='%1.1f%%')
        plt.title('Sales Distribution per Month')
        buffer = BytesIO()
        plt.savefig(buffer, format='png')
        buffer.seek(0)
        image_data = base64.b64encode(buffer.getvalue()).decode('utf-8')
        buffer.close()
        context = {
            'total_sales': total_sales,
            'average_sales': average_sales,
            'chart': image_data,
        }
        return render(request, 'chart.html', context)
    return render(request, 'chart.html', {'form': UploadFileForm()})

```

Urls:

```

from django.urls import path
from . import views

```

```

urlpatterns = [
    path('', views.homepage, name='homepage'),
    path('display_csv/', views.upload_file, name='display_csv'),
]

```

Html:

Homepage:

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>

```

```

</head>
<body>
<h1>
  <b>
    Good Morning To all.
    This is my Home page
    <li class="nav-item">
      <a href="{% url 'display_csv' %}">Displaycsv</a>
    </li>
  </b>
</h1>
</body>
</html>

```

Chart.html:

```

{% load static %}
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Implementation of Exception Handling</title>
</head>
<body>

{% block body %}
<div class="container text-center">
  <div class="row">
    <div class="col">
      First in DOM, ordered last
    <div>
      <br><br>

<!-- templates/upload.html -->
<h2>Upload CSV File</h2>
<form method="post" enctype="multipart/form-data">
  {% csrf_token %}
  {{ form.as_p }}
  <button type="submit">Upload</button>
</form>

  </div>
</div>

```

