

WEEK 6 FORM PROCESSING USING DJANGO

Name: Sagnik Chatterjee

Reg: 180905478

Roll No: 61

SEM: 6 B

Lab6: urls.py

```
"""lab6 URL Configuration

The `urlpatterns` list routes URLs to views. For more
information please see:
    https://docs.djangoproject.com/en/3.2/topics/http/urls/
Examples:
Function views
    1. Add an import:  from my_app import views
    2. Add a URL to urlpatterns:  path('', views.home,
name='home')
Class-based views
    1. Add an import:  from other_app.views import Home
    2. Add a URL to urlpatterns:  path('', Home.as_view(),
name='home')
Including another URLconf
    1. Import the include() function: from django.urls import
include, path
    2. Add a URL to urlpatterns:  path('blog/',
include('blog.urls'))
"""
from django.contrib import admin
from django.urls import path
from django.urls.conf import include

urlpatterns = [
    path('admin/', admin.site.urls),
    path('q1/', include('q1.urls')),
```

```
path('q2/', include('q2.urls')),
path('q3/', include('q3.urls')),
path('q4/', include('q4.urls')),
]
```

Lab6: settings.py

```
"""
Django settings for lab6 project.

Generated by 'django-admin startproject' using Django 3.2.1.

For more information on this file, see
https://docs.djangoproject.com/en/3.2/topics/settings/

For the full list of settings and their values, see
https://docs.djangoproject.com/en/3.2/ref/settings/
"""
import os
from pathlib import Path

# Build paths inside the project like this: BASE_DIR / 'subdir'.
BASE_DIR = Path(__file__).resolve().parent.parent

# Quick-start development settings - unsuitable for production
# See
https://docs.djangoproject.com/en/3.2/howto/deployment/checklist/

# SECURITY WARNING: keep the secret key used in production
secret!
```

```
SECRET_KEY =
'django-insecure--16c&72fy@+xa(!*=2bommw^i!s=%^)11ycip8l+tc_0d$3
4xn'

# SECURITY WARNING: don't run with debug turned on in
production!
DEBUG = True

ALLOWED_HOSTS = []

# Application definition

INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'q1',
    'q2',
    'q3',
    'q4',
]

MIDDLEWARE = [
    'django.middleware.security.SecurityMiddleware',
    'django.contrib.sessions.middleware.SessionMiddleware',
    'django.middleware.common.CommonMiddleware',
    'django.middleware.csrf.CsrfViewMiddleware',
    'django.contrib.auth.middleware.AuthenticationMiddleware',
    'django.contrib.messages.middleware.MessageMiddleware',
    'django.middleware.clickjacking.XFrameOptionsMiddleware',
```

```

]

ROOT_URLCONF = 'lab6.urls'

TEMPLATES = [
    {
        'BACKEND':
'django.template.backends.django.DjangoTemplates',
        'DIRS': [],
        'APP_DIRS': True,
        'OPTIONS': {
            'context_processors': [
                'django.template.context_processors.debug',
                'django.template.context_processors.request',
                'django.contrib.auth.context_processors.auth',

'django.contrib.messages.context_processors.messages',
            ],
        },
    ],
]

WSGI_APPLICATION = 'lab6.wsgi.application'

# Database
# https://docs.djangoproject.com/en/3.2/ref/settings/#databases

DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.sqlite3',
        'NAME': BASE_DIR / 'db.sqlite3',
    }
}

```

```
# Password validation
#
https://docs.djangoproject.com/en/3.2/ref/settings/#auth-password-validators

AUTH_PASSWORD_VALIDATORS = [
    {
        'NAME':
        'django.contrib.auth.password_validation.UserAttributeSimilarityValidator',
    },
    {
        'NAME':
        'django.contrib.auth.password_validation.MinimumLengthValidator'
    },
    {
        'NAME':
        'django.contrib.auth.password_validation.CommonPasswordValidator'
    },
    {
        'NAME':
        'django.contrib.auth.password_validation.NumericPasswordValidator'
    },
]

# Internationalization
# https://docs.djangoproject.com/en/3.2/topics/i18n/
```

```

LANGUAGE_CODE = 'en-us'

TIME_ZONE = 'UTC'

USE_I18N = True

USE_L10N = True

USE_TZ = True


# Static files (CSS, JavaScript, Images)
# https://docs.djangoproject.com/en/3.2/howto/static-files/

STATIC_URL = '/static/'


# Default primary key field type
#
# https://docs.djangoproject.com/en/3.2/ref/settings/#default-auto-field

DEFAULT_AUTO_FIELD = 'django.db.models.BigAutoField'

```

Q1 Develop a web application using Django framework to demonstrate the transfer of multiple parameters between web pages. User should be presented with a dropdown list containing car manufacturers, a text box which takes model name of the manufacturer and a submit button. On submitting the web page, the user is forwarded to a new page. This new page should display the selected car manufacturer name and the model name.

q1/forms.py

```
from django import forms
from django.forms import widgets

car_manufacturers = [
    ('Q2', 'Audi'),
    ('Aspire', 'Ford'),
    ('SL400', 'Mercedes'),
    ('F8', 'Ferrari'),
    ('Model S', 'Tesla'),
    ('Cerna', 'Toyota')
]

class BasicForm(forms.Form):
    car_manufacturer = forms.CharField(label='Select car
manufacturer.', widget=forms.Select(choices=car_manufacturers))
    model_name = forms.CharField()
```

q1/urls.py

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

app_name = 'q1'
urlpatterns = [
    path('', views.index, name='index'),
    path('result', views.result, name='result')
]
```

q1/views.py

```
from django.shortcuts import render
from .forms import BasicForm

def index(request):
```

```

    form = BasicForm()
    return render(request, 'q1/index.html', {'form': form})

def result(request):
    if request.method == 'POST':
        form = BasicForm(request.POST)
        if form.is_valid():
            car_manufacturer =
form.cleaned_data['car_manufacturer']
            model_name = form.cleaned_data['model_name']

            context = {'car_manufacturer': car_manufacturer,
'model_name': model_name}
            return render(request, 'q1/result.html', context)

```

q1/templates/q1/index.html

```

<html lang="en">
<head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Lab6 | Q1</title>
</head>
<body>
    <p>
        Develop a web application using Django framework to
demonstrate the
        transfer of multiple parameters between web pages. User
should be
        presented with a dropdown list containing car
manufacturers, a text box

```


which takes model name of the manufacturer and a submit button. On submitting the web page, the user is forwarded to a new page. This new page should display the selected car manufacturer name and the model name.

```
</p>
<hr />
<h2>
    Part 1
</h2>
<form method="POST" action="result">
    {% csrf_token %} {{ form.as_p }}
    <button type="submit">Submit</button>
</form>

</body>
</html>
```

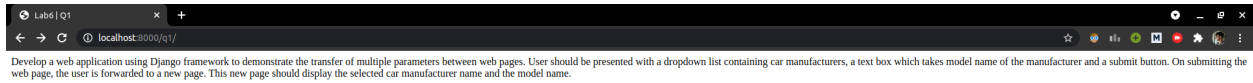
q1/templates/q1/result.html

```
<html lang="en">
<head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Lab 6 | Q1</title>
</head>
<body>
    <p>
        Develop a web application using Django framework to
        demonstrate the
        transfer of multiple parameters between web pages. User
        should be
```

presented with a dropdown list containing car manufacturers, a text box which takes model name of the manufacturer and a submit button. On submitting the web page, the user is forwarded to a new page. This new page should display the selected car manufacturer name and the model name.

```
</p>
<hr />
<ul>
  <li>
    <p>Car Manufacturer :- <strong>{{ car_manufacturer }}</strong></p>
  </li>
  <li>
    <p>Model Name :- <strong>{{ model_name }}</strong></p>
  </li>
</ul>
</body>
</html>
```

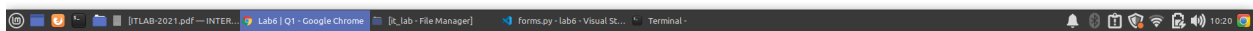
Img1 :



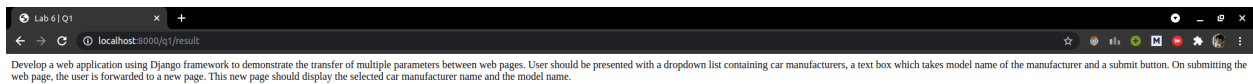
Part 1

Select car manufacturer: Tesla

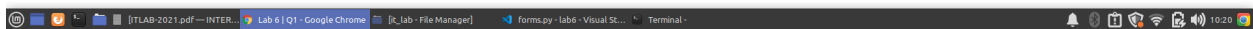
Model name:



Img2:



- Car Manufacturer -> **Model S**
- Model Name -> **Model R**



Q2 Create a page firstPage.html with two TextBoxes [Name, Roll], DropDownList

[Subjects], and a button. Create another page `secondPage.html` with a label and a button.

When the user clicks the button in first Page, he should be sent to the second page and display the contents passed from first page in the label. The button in second page should navigate the user back to firstPage. Use Django sessions to transfer information.

q2/views.py

```
from django.forms import Form
from django.shortcuts import render, redirect
from . import BasicForm

def index(request):
    form = BasicForm()
    request.session["name"] = ""
    request.session["roll"] = ""
    request.session["subject"] = ""
    return render(request, 'q2/firstPage.html', {'form': form})

def info(request):
    if "name" not in request.session:
        request.session["name"] = ""
    if "roll" not in request.session:
        request.session["rollno"] = ""
    if "subject" not in request.session:
        request.session["subject"] = ""

    if request.method == 'POST':
        form = BasicForm(request.POST)
        if form.is_valid():
            name = form.cleaned_data['name']
            roll = form.cleaned_data['roll']
            subject = form.cleaned_data['subject']
```

```

        request.session['name'] += name
        request.session['roll'] = roll
        request.session['subject'] += subject

        return redirect('/secondPage')
    else:
        form = BasicForm()
        request.session["name"] = ""
        request.session["roll"] = ""
        request.session["subject"] = ""

        return render(request, 'q2/firstPage.html', {'form': form})

def second(request):
    name = request.session['name']
    roll = request.session['roll']
    subject = request.session['subject']

    context = {'name': name, 'roll': roll, 'subject': subject}
    return render(request, 'q2/secondPage.html', context)

```

q2/urls.py

```

from django.urls import path
from . import views

app_name = 'q2'
urlpatterns = [
    path('index', views.index, name='index'),
    path('firstPage', views.first_page, name='first_page'),
    path('secondPage', views.second_page, name='second_page'),
]

```

q2/forms.py

```

from django import forms
from django.forms import widgets
from django.forms.fields import CharField, IntegerField

subjects = [
    ('Math', 'Math'),
    ('Phycics', 'Physics'),
    ('English', 'English'),
    ('Chemistry', 'Chemistry'),
    ('Web Dev', 'Web Dev'),
    ('Algorithms', 'Algorithms'),
]

class BasicForm(forms.Form):
    name = CharField()
    roll = IntegerField()
    subject = CharField(label='Select subject.',
widget=forms.Select(choices=subjects))

```

q1/templates/q2/firstPage.html

```

<html lang="en">
<head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Lab6 | Q2</title>
</head>
<body>
    <p>
        Create a page firstPage.html with two TextBoxes [Name,
Roll], DropDownList

```

[Subjects], and a button. Create another page secondPage.html with a label and a button. When the user clicks the button in first Page, he should be sent to the second page and display the contents passed from first page in the label. The button in second page should navigate the user back to firstPage. Use Django sessions to transfer information.

```
</p>

<h2>Q2 | Part 1</h2>
<hr />

<form method="POST" action="firstPage">
    {% csrf_token %} {{ form.as_p }}
    <button type="submit">SUBMIT</button>
</form>
</body>
</html>
```

q2/templates/q2/secondPage.html

```
<html lang="en">
<head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Lab6 | Q2</title>
</head>
<body>
    <p>
        Create a page firstPage.html with two TextBoxes [Name,
Roll], DropDownList
```

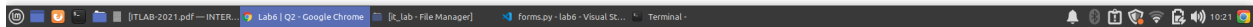
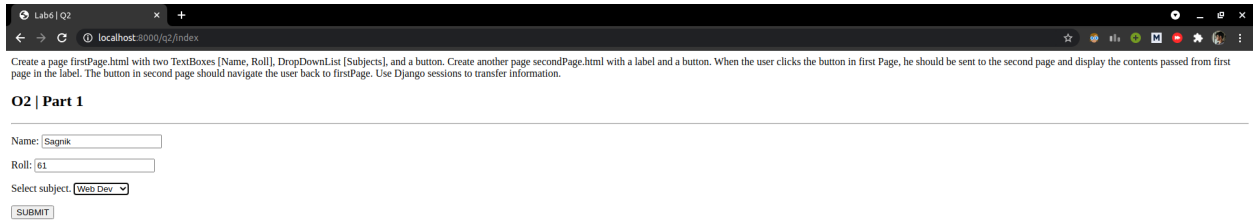
[Subjects], and a button. Create another page
secondPage.html with a label
and a button. When the user clicks the button in first
Page, he should be
sent to the second page and display the contents passed
from first page in
the label. The button in second page should navigate the
user back to
firstPage. Use Django sessions to transfer information.

```
</p>
<h2>Q2 | Part 2</h2>
<hr />

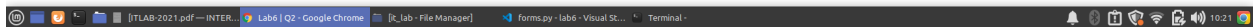
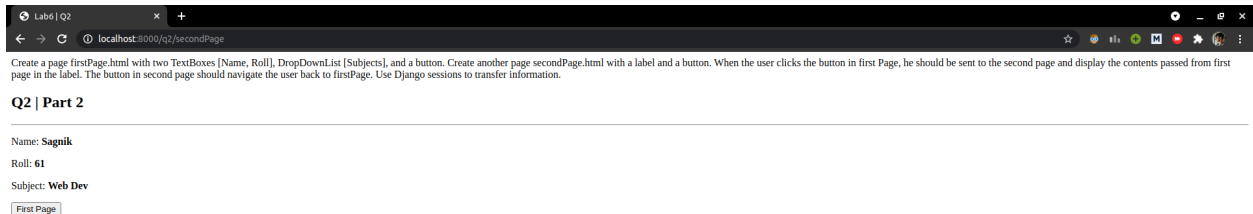
<p>Name: <strong>{{ name }}</strong></p>
<p>Roll: <strong>{{ roll }}</strong></p>
<p>Subject: <strong>{{ subject }}</strong></p>

<form method="GET" action="index">
  <button type="submit">First Page</button>
</form>
</body>
</html>
```

Img1 :



Img2 :



Q3 Create a Register page and Success page with the following requirements:

- i. Register page should contain four input TextBoxes for UserName, Password, Email id and Contact Number and also a button to submit. Make the username as compulsory field and other fields as optional.
- ii. On button click, Success page is displayed with message "Welcome {UserName}" and also his Email and Contact Number has to be displayed.
- iii. Use secure technique to send details to the Success page (Hint: use csrftoken)

q3/views.py

```
from django.shortcuts import render, redirect
from .forms import BasicForm

def index(request):
    form = BasicForm()
    return render(request, 'q3/register.html', {'form': form})

def register(request):
    username=""
    password=""
    email=""
    contact=""
    if request.method == 'POST':
        form = BasicForm(request.POST)
        if form.is_valid():
            username = form.cleaned_data['username']
            password = form.cleaned_data['password']
            email = form.cleaned_data['email']
            contact = form.cleaned_data['contact']

            context = {'username': username, 'password': password,
                      'email': email, 'contact': contact}
            return render(request, 'q3/success.html', context)
```

q3/forms.py

```
from django import forms
from django.forms import widgets
from django.forms.fields import CharField, EmailField,
IntegerField

class BasicForm(forms.Form):
    username = CharField(required=True)
    password = CharField(widget=widgets.PasswordInput(),
required=False)
    email = CharField(widget=widgets.EmailInput(),
required=False)
    contact=
IntegerField(min_value=1000000000,max_value=9999999999,required=
False)
```

q3/urls.py

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

app_name = 'q3'
urlpatterns = [
    path('', views.index, name='index'),
    path('register', views.register, name='register'),
]
```

q3/templates/q3/register.html

```
<html lang="en">
<head>
```

```

<meta charset="UTF-8" />
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width,
initial-scale=1.0" />
<title>Lab6 | Q3</title>
</head>
<body>
  <p>
    Create a Register page and Success page with the following
requirements:
    i. Register page should contain four input TextBoxes for
UserName,
    Password, Email id and Contact Number and also a button to
submit. Make
    the username as compulsory field and other fields as
optional. ii. On
    button click, Success page is displayed with message
"Welcome {UserName}"
    and also his Email and Contact Number has to be displayed.
iii. Use secure
    technique to send details to the Success page (Hint: use
csrftoken)
  </p>
  <h2>Q3 Part 1 </h2>
  <hr />

  <form method="POST" action="register">
    {% csrf_token %} {{ form.as_p }}
    <button type="submit">Submit</button>
  </form>
</body>
</html>

```

q3/templates/q3/success.html

```
<html lang="en">
```

```
<head>
  <meta charset="UTF-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
  <title>Lab6 | Q3</title>
</head>
<body>
  <p>
    Create a Register page and Success page with the following
requirements:
    i. Register page should contain four input TextBoxes for
UserName,
    Password, Email id and Contact Number and also a button to
submit. Make
    the username as compulsory field and other fields as
optional. ii. On
    button click, Success page is displayed with message
"Welcome {UserName}"
    and also his Email and Contact Number has to be displayed.
iii. Use secure
    technique to send details to the Success page (Hint: use
csrftoken)
  </p>
  <h2>Q3 Part 2</h2>
  <hr />

  <p>Welcome <strong>{{ username }},</strong></p>
  <p>Email-ID: <strong>{{ email }}</strong></p>
  <p>Contact: <strong>{{ contact }}</strong></p>
</body>
</html>
```

Img1 :

The screenshot shows a web browser window with the address bar displaying 'localhost:3000/q3/'. The page content includes a registration form with the following fields and values:

- Username:
- Password:
- Email:
- Contact:
- Submit:

Below the form, there is a large, empty rectangular area.



Img2 :

The screenshot shows a web browser window with the address bar displaying 'localhost:3000/q3/register'. The page content includes a success message and a confirmation of the registration details:

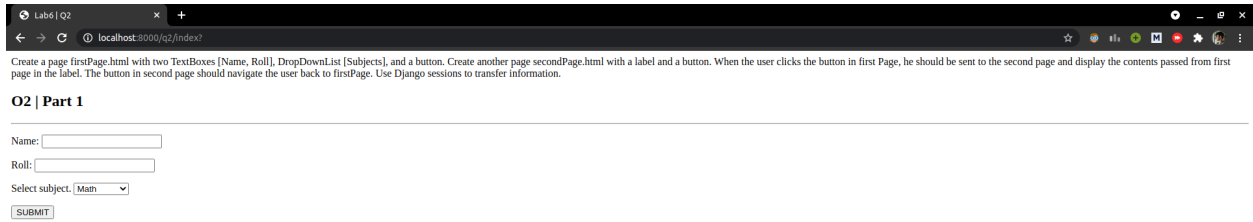
Welcome **sagnik**,

Email-ID: **lambdalambda@gmail.com**

Contact: **9923456789**



Img3 :



Q4 Design a website with two pages.
First page contains:
RadioButton with HP, Nokia, Samsung, Motorola, Apple as options.
CheckBox with Mobile and Laptop as items.
TextBox to enter quantity.
There is a button with text as "Produce Bill".
On Clicking Produce Bill button, item should be displayed with total amount on another page.

q4/views.py

```
from django.shortcuts import render, redirect
from .forms import BasicForm

prices = {
    'HP': {'mobile': 5000, 'laptop': 15000},
    'Nokia': {'mobile': 6000, 'laptop': 16000},
    'Samsung': {'mobile': 7000, 'laptop': 17000},
    'Motorolla': {'mobile': 8000, 'laptop': 18000},
    'Apple': {'mobile': 9000, 'laptop': 19000},
}
```

```

def index(request):
    form = BasicForm()
    return render(request, 'q4/first_page.html', {'form': form})

def produce_bill(request):
    if request.method == 'POST':
        form = BasicForm(request.POST)
        if form.is_valid():
            company = form.cleaned_data['company']
            mobile = form.cleaned_data['mobile']
            laptop = form.cleaned_data['laptop']
            quantity = form.cleaned_data['quantity']

            total_bill = 0

            if (mobile):
                total_bill = total_bill +
prices[company]['mobile']
            if (laptop):
                total_bill = total_bill +
prices[company]['laptop']

            context = {'company': company, 'mobile': mobile,
'lap'op': laptop, 'quantity': quantity, 'total_bill':
total_bill}
        else:
            context = {}
    return render(request, 'q4/second_page.html', context)

```



```

from django.urls import path
from . import views

app_name = 'q4'
urlpatterns = [
    path('', views.index, name='index'),
    path('produce_bill', views.produce_bill,
name='produce_bill'),
]

```

q4/forms.py

```

from django import forms
from django.forms import widgets
from django.forms.fields import CharField, EmailField,
IntegerField

companies = [
    ('HP', 'HP'),
    ('Nokia', 'Nokia'),
    ('Samsung', 'Samsung'),
    ('Motorolla', 'Motorolla'),
    ('Apple', 'Apple'),
]

class BasicForm(forms.Form):
    company = forms.ChoiceField(widget=forms.RadioSelect,
choices=companies)
    mobile = forms.BooleanField(required=False)
    laptop = forms.BooleanField(required=False)
    quantity = forms.IntegerField()

```

q4/templates/q4/first_page.html

```

<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
  <title>Lab6 | Q4</title>
</head>
<body>
  <p>
    Design a website with two pages. First page contains:
    RadioButton with HP,
    Nokia, Samsung, Motorola, Apple as options. CheckBox with
    Mobile and
    Laptop as items. TextBox to enter quantity. There is a
    button with text as
    "Produce Bill". On Clicking Produce Bill button, item
    should be displayed
    with total amount on another page.
  </p>
  <h2>Q4 Part 1 </h2>
  <hr />

  <form method="POST" action="produce_bill">
    {% csrf_token %} {{ form.as_p }}
    <button type="submit">Produce Bill</button>
  </form>
</body>
</html>

```

q4/templates/q4/second_page.html

```

<html lang="en">
<head>
  <meta charset="UTF-8" />

```

```

<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width,
initial-scale=1.0" />
<title>Lab6 | Q4</title>
</head>
<body>
<p>
    Design a website with two pages. First page contains:
    RadioButton with HP,
    Nokia, Samsung, Motorola, Apple as options. CheckBox with
    Mobile and
    Laptop as items. TextBox to enter quantity. There is a
    button with text as
    "Produce Bill". On Clicking Produce Bill button, item
    should be displayed
    with total amount on another page.
</p>
<h2>Q4 Part 2</h2>
<hr />

<p>Company: <strong>{{ company }}</strong></p>

<p>
    Mobile: {% if mobile %}
    <strong> yes </strong>
    {% else %}
    <strong> no </strong>
    {% endif %}
</p>

<p>
    Laptop: {% if laptop %}
    <strong> yes </strong>
    {% else %}

```

```

        <strong> no </strong>
        {% endif %}
    </p>

    <p>Quantity: <strong>{{ quantity }}</strong></p>
    <br />
    <p>Total Bill: <strong>Rs. {{ total_bill }}</strong></p>
</body>
</html>

```

Img1:

Lab6 | Q4

localhost:8000/q4/

Design a website with two pages. First page contains: RadioButton with HP, Nokia, Samsung, Motorola, Apple as options. CheckBox with Mobile and Laptop as items. TextBox to enter quantity. There is a button with text as "Produce Bill". On Clicking Produce Bill button, item should be displayed with total amount on another page.

Q4 Part 1

Company:

- ☐ HP
- ☐ Nokia
- ☐ Samsung
- ☐ Motorola
- ☒ Apple

Mobile: ☒

Laptop: ☒

Quantity:

Windows taskbar: 0TLAB-2021.pdf - INTER... Lab6 | Q4 - Google Chrome [C:\lab - File Manager] forms.py - lab6 - Visual St... Terminal - 10:23

Img2:

Lab6 | Q4

localhost:8000/q4/produce_bill

Design a website with two pages. First page contains: RadioButton with HP, Nokia, Samsung, Motorola, Apple as options. CheckBox with Mobile and Laptop as items. TextBox to enter quantity. There is a button with text as "Produce Bill". On Clicking Produce Bill button, item should be displayed with total amount on another page.

Q4 Part 2

Company: **Apple**

Mobile: **yes**

Laptop: **yes**

Quantity: 3

Total Bill: **Rs. 28000**