# Solving with Python Django (area,reverse string,largest element etc)

## 1.Calculating the Area of a Rectangle (Django View):

Assuming you have a Django app named myapp, let's create a view to calculate the area of a rectangle.

**views.py:**

from django.shortcuts import render

from django.http import HttpResponse

def calculate\_area(request, length, width):

try:

length = float(length)

width = float(width)

area = length \* width

return HttpResponse(f'The area of the rectangle is: {area}')

except ValueError:

return HttpResponse('Invalid input. Please provide valid numeric values for length and width.')

**urls.py:**

from django.urls import path

from .views import calculate\_area

urlpatterns = [

path('area/<str:length>/<str:width>/', calculate\_area, name='calculate\_area'),

]

## 2. Reversing a String (Django View):

Let's create a view that reverses a string in Django.

views.py:

from django.shortcuts import render

from django.http import HttpResponse

def reverse\_string(request, input\_string):

reversed\_string = input\_string[::-1]

return HttpResponse(f'The reversed string is: {reversed\_string}')

**urls.py:**

from django.urls import path

from .views import reverse\_string

urlpatterns = [

path('reverse/<str:input\_string>/', reverse\_string, name='reverse\_string'),

]

This reverse\_string view takes an input\_string parameter from the URL, reverses it, and returns the reversed string.

## 3. Finding the Largest Element in a List (Django View):

Now, let's create a view to find the largest element in a list.

**views.py:**

from django.shortcuts import render

from django.http import HttpResponse

def find\_largest\_element(request, elements):

try:

elements\_list = [float(e) for e in elements.split(',')]

if elements\_list:

largest\_element = max(elements\_list)

return HttpResponse(f'The largest element is: {largest\_element}')

else:

return HttpResponse('Please provide a non-empty list of numeric values.')

except ValueError:

return HttpResponse('Invalid input. Please provide a list of valid numeric values.')

**urls.py:**

from django.urls import path

from .views import find\_largest\_element

urlpatterns = [

path('largest/<str:elements>/', find\_largest\_element, name='find\_largest\_element'),

]

This find\_largest\_element view takes a comma-separated list of numeric values from the URL, converts it to a list, finds the largest element, and returns the result.