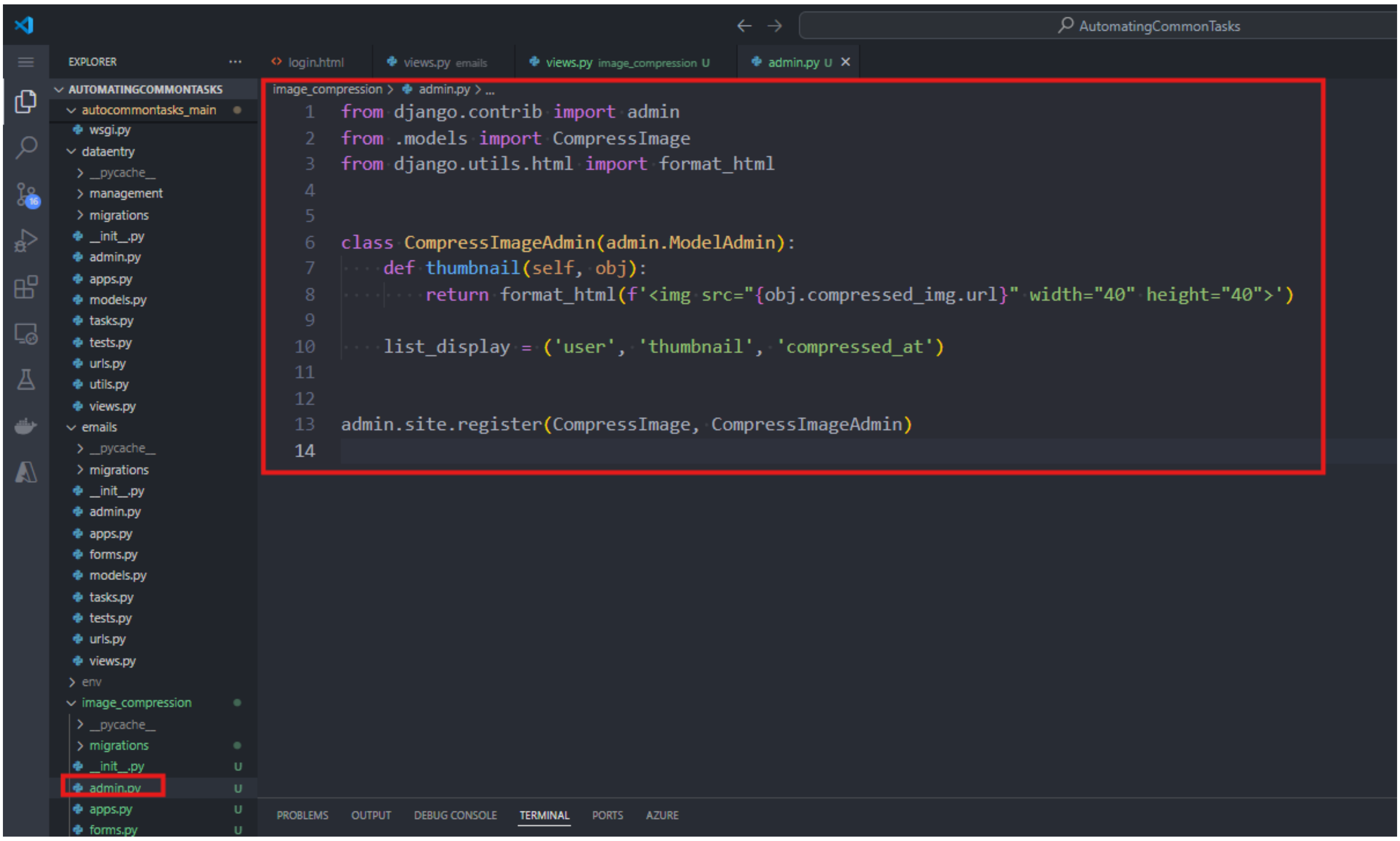
Topic: Image Compression 26: Thumbnail, Size, Automatic Download

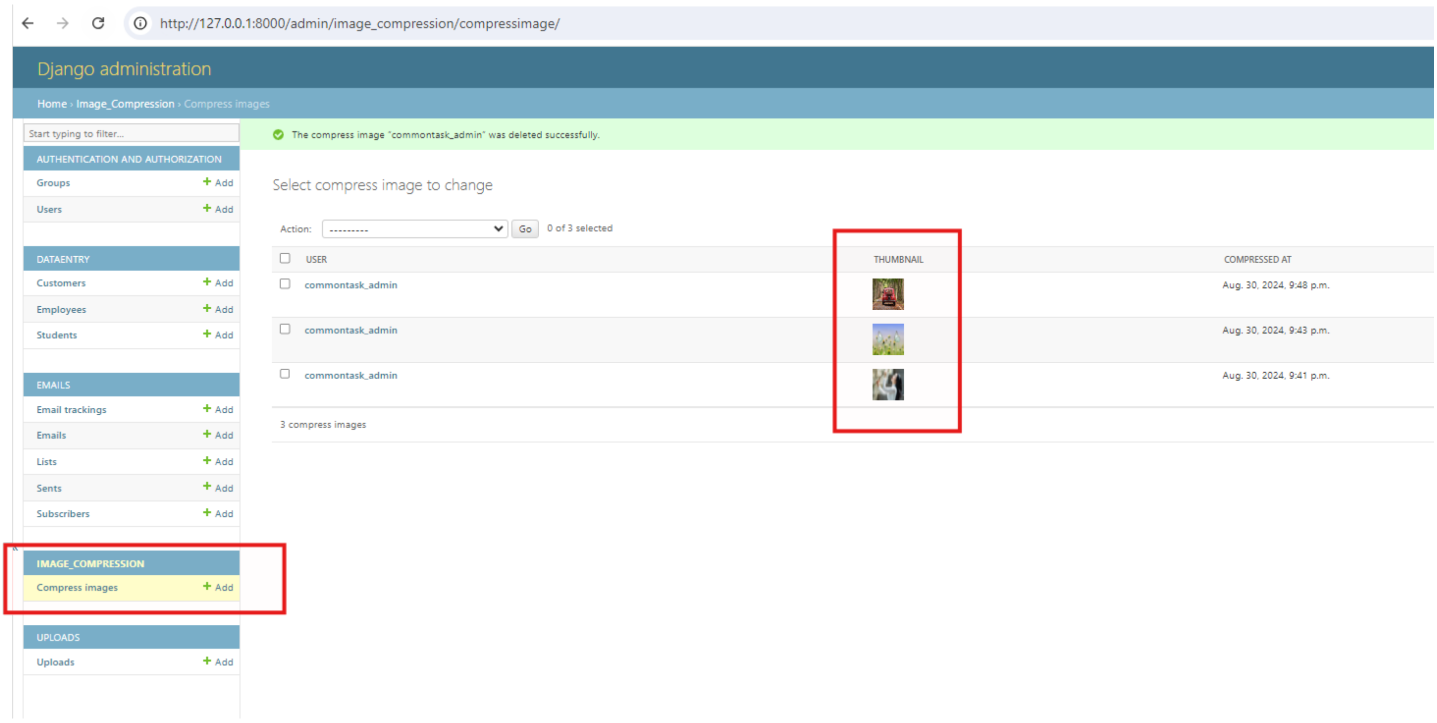
Speaker: Udemy Instructor Rathan Kumar | Notebook: Django: Automating Common Tasks

1. We need some thumbnails for our images on the admin dashboard. So, update the ADMIN.PY as:



```python
from django.contrib import admin
from .models import CompressImage
from django.utils.html import format_html


class CompressImageAdmin(admin.ModelAdmin):
    def thumbnail(self, obj):
        return format_html(f'<img src="{obj.compressed_img.url}" width="40" height="40">')

    list_display = ('user', 'thumbnail', 'compressed_at')


admin.site.register(CompressImage, CompressImageAdmin)
```

2. Reload your admin panel:



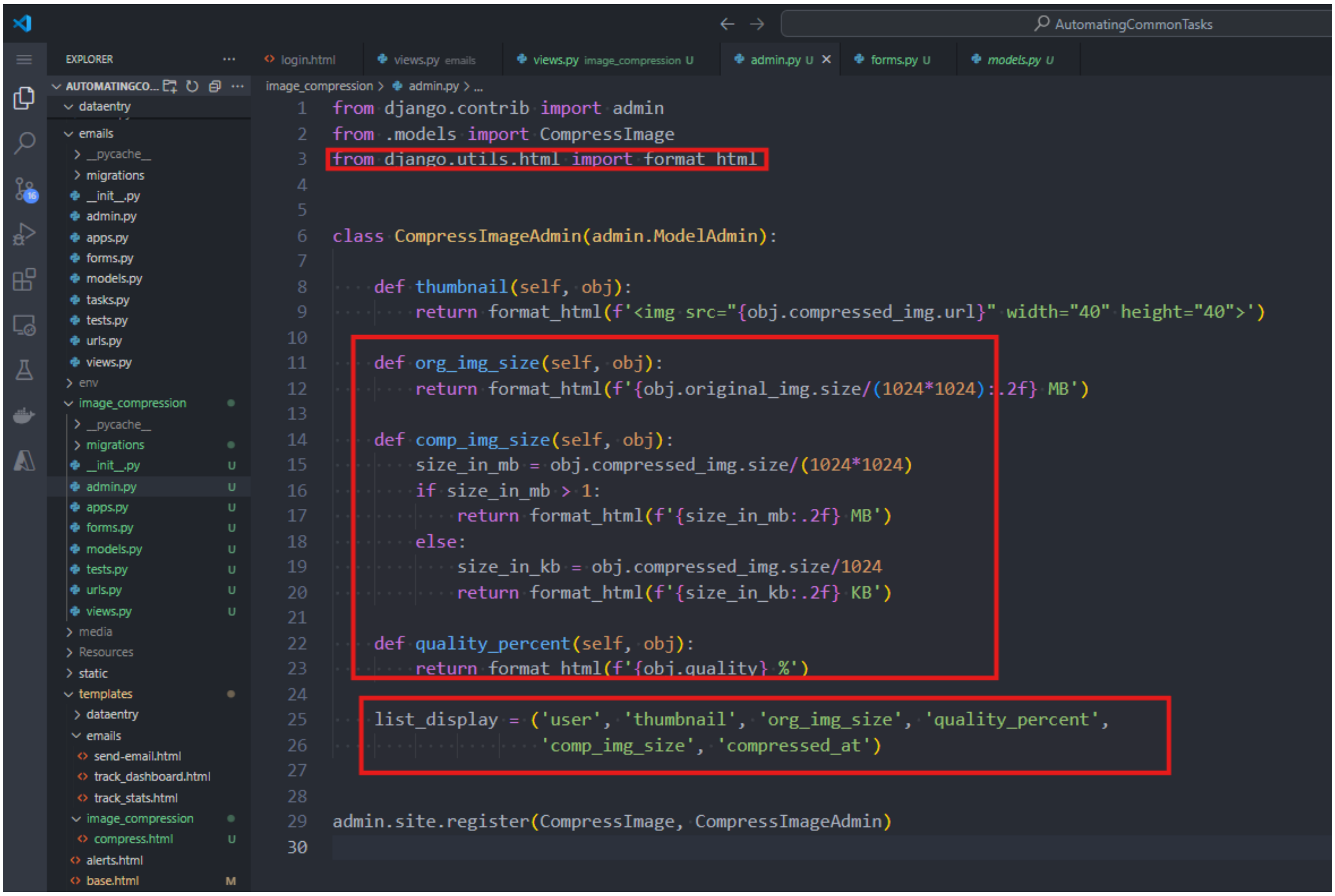
The compress image "commontask_admin" was deleted successfully.

Select compress image to change

□ USER	THUMBNAIL	COMPRESSED AT
□ commontask_admin		Aug. 30, 2024, 9:48 p.m.
□ commontask_admin		Aug. 30, 2024, 9:43 p.m.
□ commontask_admin		Aug. 30, 2024, 9:41 p.m.

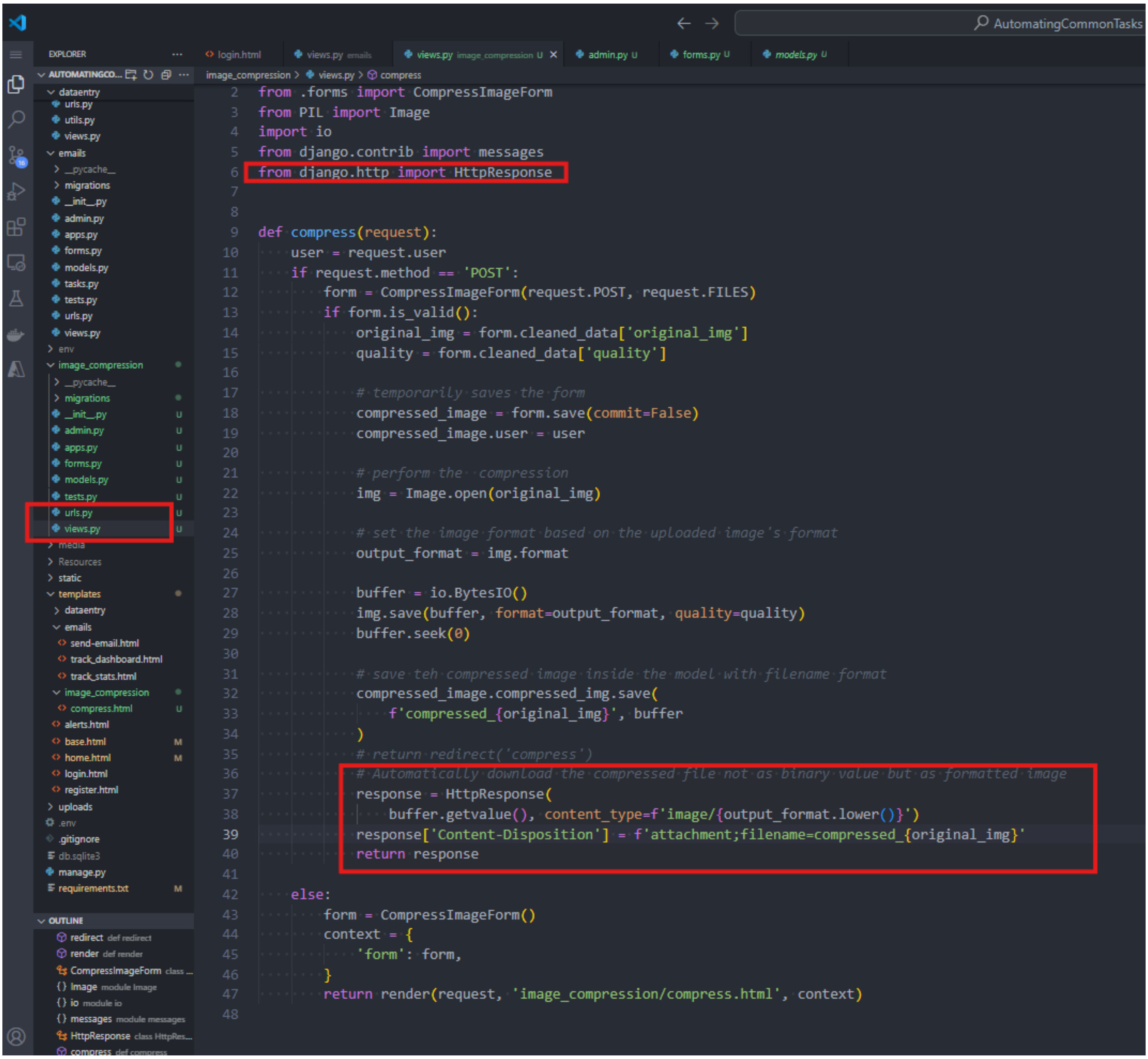
3 compress images

3. To display the original and compressed sizes of the image, in the ADMIN.PY, we update:



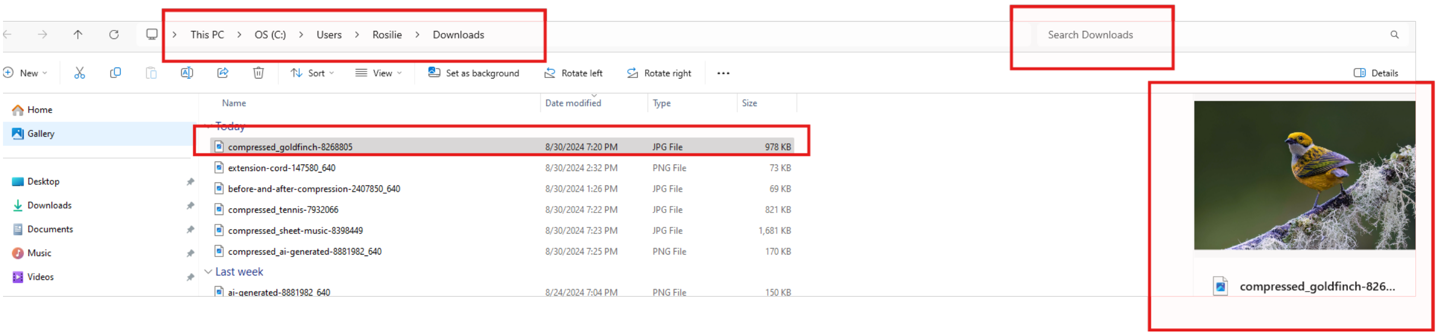
```python
from django.contrib import admin
from .models import CompressImage
from django.utils.html import format_html


class CompressImageAdmin(admin.ModelAdmin):

    def thumbnail(self, obj):
        return format_html(f'<img src="{obj.compressed_img.url}" width="40" height="40">')

    def org_img_size(self, obj):
        return format_html(f'{obj.original_img.size/(1024*1024):.2f} MB')

    def comp_img_size(self, obj):
        size_in_mb = obj.compressed_img.size/(1024*1024)
        if size_in_mb > 1:
            return format_html(f'{size_in_mb:.2f} MB')
        else:
            size_in_kb = obj.compressed_img.size/1024
            return format_html(f'{size_in_kb:.2f} KB')

    def quality_percent(self, obj):
        return format_html(f'{obj.quality} %')

    list_display = ('user', 'thumbnail', 'org_img_size', 'quality_percent',
                    'comp_img_size', 'compressed_at')


admin.site.register(CompressImage, CompressImageAdmin)
```

4. To allow the user to download automatically the compressed image, we update our VIEWS.PY



```python
from .forms import CompressImageForm
from PIL import Image
import io
from django.contrib import messages
from django.http import HttpResponse


def compress(request):
    user = request.user
    if request.method == 'POST':
        form = CompressImageForm(request.POST, request.FILES)
        if form.is_valid():
            original_img = form.cleaned_data['original_img']
            quality = form.cleaned_data['quality']

            # temporarily saves the form
            compressed_image = form.save(commit=False)
            compressed_image.user = user

            # perform the  compression
            img = Image.open(original_img)

            # set the image format based on the uploaded image's format
            output_format = img.format

            buffer = io.BytesIO()
            img.save(buffer, format=output_format, quality=quality)
            buffer.seek(0)

            # save teh compressed image inside the model with filename format
            compressed_image.compressed_img.save(
                f'compressed_{original_img}', buffer
            )
            # return redirect('compress')
            # Automatically download the compressed file not as binary value but as formatted image
            response = HttpResponse(
                buffer.getvalue(), content_type=f'image/{output_format.lower()}')
            response['Content-Disposition'] = f'attachment;filename=compressed_{original_img}'
            return response

    else:
        form = CompressImageForm()
        context = {
            'form': form,
        }
        return render(request, 'image_compression/compress.html', context)
```

5. Open your downloads folder for the images:



Name	Date modified	Type	Size
Today			
compressed_goldfinch-8268805	8/30/2024 7:20 PM	JPG File	978 KB
extension-cord-147580_640	8/30/2024 2:32 PM	PNG File	73 KB
before-and-after-compression-2407850_640	8/30/2024 1:26 PM	JPG File	69 KB
compressed_tennis-7932066	8/30/2024 7:22 PM	JPG File	821 KB
compressed_sheet-music-8398449	8/30/2024 7:23 PM	JPG File	1,681 KB
compressed_ai-generated-8881982_640	8/30/2024 7:25 PM	PNG File	170 KB
Last week			
ai-generated-8881982_640	8/24/2024 7:04 PM	PNG File	150 KB

6. Push your changes to Github.