

```

In [1]: import pandas as pd
import os

# Base directory
base_dir = '/Users/Dell/Documents/TASK1/WikiArt'
wikiart_dir = os.path.join(base_dir, 'wikiart')

# Load metadata
metadata = pd.read_csv(os.path.join(base_dir, 'artist_train.csv'), header=None)
metadata.columns = ['file_info', 'label']

print("First few rows of metadata:")
print(metadata.head())

# Parse file info
metadata[['style', 'artist_image']] = metadata['file_info'].str.split('/', n=1, expand=True)
metadata[['artist', 'image_name']] = metadata['artist_image'].str.split('_', n=1, expand=True)

# Generate correct image paths (flat structure: <style>/<artist>_<image_name>)
metadata['image_path'] = metadata.apply(
    lambda row: os.path.join(wikiart_dir, row['style'], f"{row['artist']}_{row['image_name']}"),
    axis=1
)

# Debug: Show sample paths
print("Sample image paths:")
print(metadata['image_path'].head())

# Filter valid paths
valid_rows = []
for _, row in metadata.iterrows():
    if os.path.exists(row['image_path']):
        valid_rows.append(row)
    else:
        print(f"Missing: {row['image_path']}")

if not valid_rows:
    raise FileNotFoundError("No valid images found. Check wikiart folder structure and ensure images match arti:

labels = pd.DataFrame(valid_rows)[['image_path', 'label']]
labels.to_csv(os.path.join(base_dir, 'labels.csv'), index=False)

print(f"Found {len(valid_rows)} valid images.")
print("labels.csv created successfully!")
print(labels.head())

```

First few rows of metadata:

	file_info	label
0	Realism/vincent-van-gogh_pine-trees-in-the-fen...	22
1	Baroque/rembrandt_the-angel-appearing-to-the-s...	20
2	Post_Impressionism/paul-cezanne_portrait-of-th...	16
3	Impressionism/pierre-auguste-renoir_young-girl...	17
4	Romanticism/ivan-aivazovsky_morning-1851.jpg	9

Sample image paths:

0	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Re...
1	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Ba...
2	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Po...
3	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Im...
4	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Ro...

Name: image_path, dtype: object

Found 13346 valid images.

labels.csv created successfully!

	image_path	label
0	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Re...	22
1	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Ba...	20
2	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Po...	16
3	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Im...	17
4	/Users/Dell/Documents/TASK1/WikiArt/wikiart/Ro...	9

In []: