

```
In [1]: pip install pandas as pd
```

```
Requirement already satisfied: pandas in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (2.3.1)  
Note: you may need to restart the kernel to use updated packages.
```

```
ERROR: Could not find a version that satisfies the requirement as (from versions: none)  
ERROR: No matching distribution found for as
```

```
In [2]: pip install seaborn as sns
```

```
Requirement already satisfied: seaborn in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (0.13.2)  
Note: you may need to restart the kernel to use updated packages.
```

```
ERROR: Could not find a version that satisfies the requirement as (from versions: none)  
ERROR: No matching distribution found for as
```

```
In [3]: pip install matplotlib.pyplot as plt
```

```
Note: you may need to restart the kernel to use updated packages.
```

```
ERROR: Could not find a version that satisfies the requirement matplotlib.pyplot (from  
versions: none)  
ERROR: No matching distribution found for matplotlib.pyplot
```

```
In [4]: pip install gradio ollama
```

Requirement already satisfied: gradio in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (5.44.1)  
Requirement already satisfied: ollama in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (0.5.3)  
Requirement already satisfied: aiofiles<25.0,>=22.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (24.1.  
Requirement already satisfied: anyio<5.0,>=3.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (4.9.6  
Requirement already satisfied: audioop-lts<1.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.2.1  
Requirement already satisfied: brotli>=1.1.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (1.1.6  
Requirement already satisfied: fastapi<1.0,>=0.115.2 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.116  
Requirement already satisfied: ffmpeg in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.6.1  
Requirement already satisfied: gradio-client==1.12.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (1.12.  
Requirement already satisfied: groovy~=0.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.1.1  
Requirement already satisfied: httpx<1.0,>=0.24.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.28.  
Requirement already satisfied: huggingface-hub<1.0,>=0.33.5 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.34.  
Requirement already satisfied: jinja2<4.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (3.1.6  
Requirement already satisfied: markupsafe<4.0,>=2.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (3.0.1  
Requirement already satisfied: numpy<3.0,>=1.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (2.3.1  
Requirement already satisfied: orjson~=3.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (3.11.  
Requirement already satisfied: packaging in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (25.0.  
Requirement already satisfied: pandas<3.0,>=1.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (2.3.1  
Requirement already satisfied: pillow<12.0,>=8.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (11.3.  
Requirement already satisfied: pydantic<2.12,>=2.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (2.11.  
Requirement already satisfied: pydub in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.25.  
Requirement already satisfied: python-multipart>=0.0.18 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.0.1  
Requirement already satisfied: pyyaml<7.0,>=5.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (6.0.1  
Requirement already satisfied: ruff>=0.9.3 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.12.  
Requirement already satisfied: safehttpx<0.2.0,>=0.1.6 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.1.6  
Requirement already satisfied: semantic-version~=2.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (2.10.  
Requirement already satisfied: starlette<1.0,>=0.40.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.47.  
Requirement already satisfied: tomkit<0.14.0,>=0.12.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.13.  
Requirement already satisfied: typer<1.0,>=0.12 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.17.  
Requirement already satisfied: typing-extensions~=4.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (4.14.

Requirement already satisfied: uvicorn>=0.14.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio) (0.35.  
Requirement already satisfied: fsspec in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio-  
client==1.12.1->gradio) (2025.9.0)  
Requirement already satisfied: websockets<16.0,>=10.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from gradio-  
client==1.12.1->gradio) (15.0.1)  
Requirement already satisfied: idna>=2.8 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from anyio<5.0,>=3.  
>gradio) (3.10)  
Requirement already satisfied: sniffio>=1.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from anyio<5.0,>=3.  
>gradio) (1.3.1)  
Requirement already satisfied: certifi in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from httpx<1.0,>=0.  
>gradio) (2025.8.3)  
Requirement already satisfied: httpcore==1.\* in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from httpx<1.0,>=0.  
>gradio) (1.0.9)  
Requirement already satisfied: h11>=0.16 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from httpcore==1.\*  
>httpx<1.0,>=0.24.1->gradio) (0.16.0)  
Requirement already satisfied: filelock in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from huggingface-  
hub<1.0,>=0.33.5->gradio) (3.19.1)  
Requirement already satisfied: requests in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from huggingface-  
hub<1.0,>=0.33.5->gradio) (2.32.5)  
Requirement already satisfied: tqdm>=4.42.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from huggingface-  
hub<1.0,>=0.33.5->gradio) (4.67.1)  
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from pandas<3.0,>=  
>gradio) (2.9.0.post0)  
Requirement already satisfied: pytz>=2020.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from pandas<3.0,>=  
>gradio) (2025.2)  
Requirement already satisfied: tzdata>=2022.7 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from pandas<3.0,>=  
>gradio) (2025.2)  
Requirement already satisfied: annotated-types>=0.6.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from pydantic<2.12.  
>gradio) (0.7.0)  
Requirement already satisfied: pydantic-core==2.33.2 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from pydantic<2.12.  
>gradio) (2.33.2)  
Requirement already satisfied: typing-inspection>=0.4.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from pydantic<2.12.  
>gradio) (0.4.1)  
Requirement already satisfied: click>=8.0.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from typer<1.0,>=0.  
>gradio) (8.2.1)  
Requirement already satisfied: shellingham>=1.3.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from typer<1.0,>=0.  
>gradio) (1.5.4)  
Requirement already satisfied: rich>=10.11.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from typer<1.0,>=0.  
>gradio) (14.1.0)  
Requirement already satisfied: colorama in c:\users\ar

ansari\appdata\local\programs\python\python313\lib\site-packages (from click>=8.0.0->typer<1.0,>=0.12->gradio) (0.4.6)  
Requirement already satisfied: six>=1.5 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from python-dateutil>=2.8.2->pandas<3.0,>=1.0->gradio) (1.17.0)  
Requirement already satisfied: markdown-it-py>=2.2.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from rich>=10.11.0->typer<1.0,>=0.12->gradio) (4.0.0)  
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from rich>=10.11.0->typer<1.0,>=0.12->gradio) (2.19.2)  
Requirement already satisfied: mdurl~=0.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from markdown-it-py>=2.2.0->rich>=10.11.0->typer<1.0,>=0.12->gradio) (0.1.2)  
Requirement already satisfied: charset\_normalizer<4,>=2 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from requests->huggingface-hub<1.0,>=0.33.5->gradio) (3.4.3)  
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\ar  
ansari\appdata\local\programs\python\python313\lib\site-packages (from requests->huggingface-hub<1.0,>=0.33.5->gradio) (2.5.0)  
Note: you may need to restart the kernel to use updated packages.

```
In [5]: import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

#Load titanic dataset
url = r"C:\Users\AR ANSARI\Downloads\titanic_ dataset_final.csv"
df = pd.read_csv(url)
df
```

Out[5]:	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...)	female	38.0	1	0	PC 17599	71.2833
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500
...	...	...	...	...	...	...	...	...	...	...
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536	13.0000
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	112053	30.0000
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W./C. 6607	23.4500
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	111369	30.0000
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376	7.7500

891 rows × 12 columns

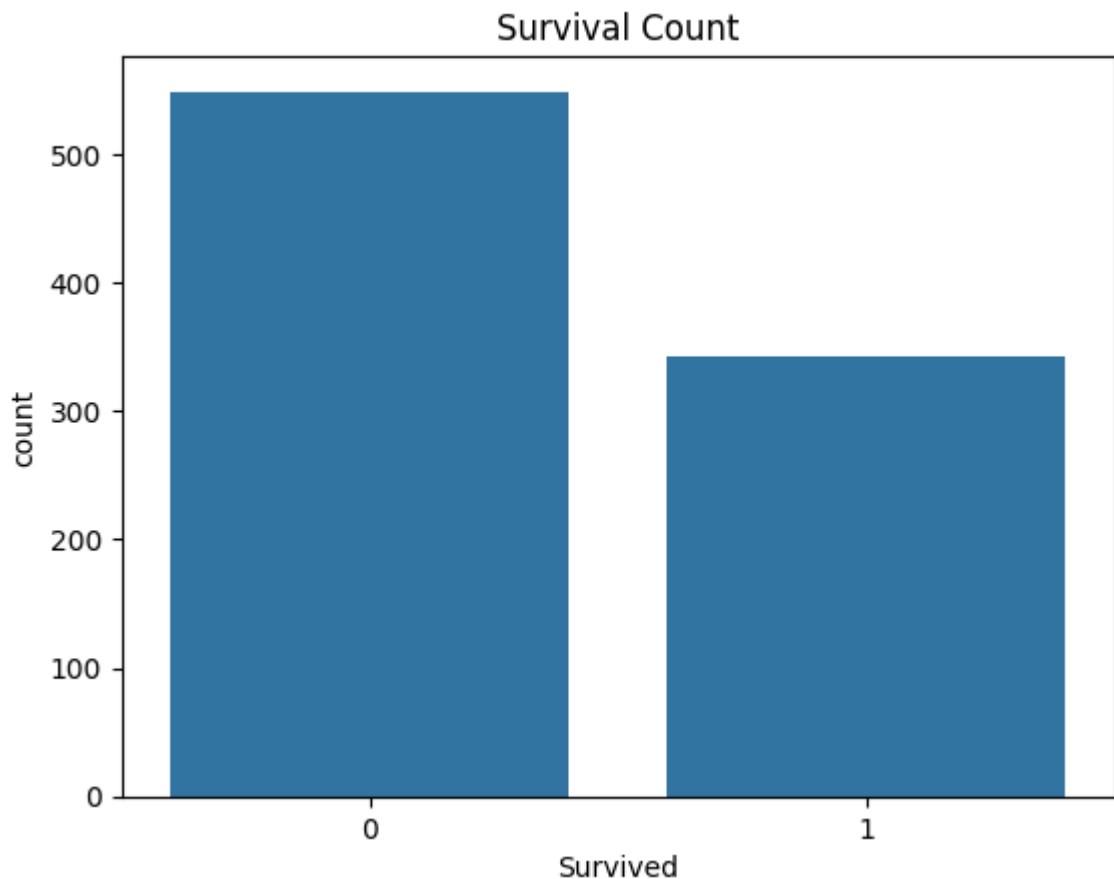
```
In [6]: #display the dataset info
print(df.describe()) #discriptive statistics
```

	PassengerId	Survived	Pclass	Age	SibSp \
count	891.000000	891.000000	891.000000	714.000000	891.000000
mean	446.000000	0.383838	2.308642	29.699118	0.523008
std	257.353842	0.486592	0.836071	14.526497	1.102743
min	1.000000	0.000000	1.000000	0.420000	0.000000
25%	223.500000	0.000000	2.000000	20.125000	0.000000
50%	446.000000	0.000000	3.000000	28.000000	0.000000
75%	668.500000	1.000000	3.000000	38.000000	1.000000
max	891.000000	1.000000	3.000000	80.000000	8.000000

	Parch	Fare
count	891.000000	891.000000
mean	0.381594	32.204208
std	0.806057	49.693429
min	0.000000	0.000000
25%	0.000000	7.910400
50%	0.000000	14.454200
75%	0.000000	31.000000
max	6.000000	512.329200

```
In [7]: #survival rate visualization

sns.countplot( x ='Survived', data=df)
plt.title('Survival Count')
plt.show()
```



```
In [ ]: import ollama

def generate_insights(df_summary) :
    prompt = f"Analyze the following dataset summary and provide insights:\n{df_
    response = ollama.chat(model='mistral', messages=[{"role": "user", "content"
    return response['message']['content']
```

```
#Generate AI Insights
```

```
summary = df.describe().to_string()
insights = generate_insights(summary)
print("\n AI Generated Insights:\n",insights)
```

```
In [ ]: import gradio as gr
```

```
def eda_analysis(file):
    df = pd.read_csv(file.name)
    summary = df.describe().to_string()
    insights = generate_insights(summary)
    return insights
```

```
# Create web interface
```

```
demo = gr.Interface(fn=eda_analysis, inputs="file", outputs="text", title="AI-Pc
```

```
# Launch the interface /app
```

```
demo.launch(share = True) # use share = True for google colab
```

```
c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\tqdm\auto.py:21: TqdmWarning: IPProgress not found. Please update jupyter and
ipywidgets. See https://ipywidgets.readthedocs.io/en/stable/user_install.html
    from .autonotebook import tqdm as notebook_tqdm
```

```
* Running on local URL: http://127.0.0.1:7861
```

```
* Running on public URL: https://c484de0ac0f3817bac.gradio.live
```

This share link expires in 1 week. For free permanent hosting and GPU upgrades, run `deploy`` from the terminal in the working directory to deploy to Hugging Face Spaces (<https://huggingface.co/spaces>)

```
Out[ ]:
```

```

Traceback (most recent call last):
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\gradio\queueing.py", line 667, in process_events
    response = await route_utils.call_process_api(
               ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
    ...<5 lines>...
  )
  ^
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\gradio\route_utils.py", line 349, in call_process_api
    output = await app.get_blocks().process_api(
             ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
    ...<11 lines>...
  )
  ^
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\gradio\blocks.py", line 2274, in process_api
    result = await self.call_function(
             ^^^^^^^^^^^^^^^^^^^^^^^^^
    ...<8 lines>...
  )
  ^
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\gradio\blocks.py", line 1781, in call_function
    prediction = await anyio.to_thread.run_sync( # type: ignore
                ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
                fn, *processed_input, limiter=self.limiter
                ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
    )
    ^
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\anyio\to_thread.py", line 56, in run_sync
    return await get_async_backend().run_sync_in_worker_thread(
           ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
           func, args, abandon_on_cancel=abandon_on_cancel, limiter=limiter
           ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
    )
    ^
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\anyio\_backends\_asyncio.py", line 2470, in run_sync_in_worker_thread
    return await future
           ^^^^^^^^^^^
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\anyio\_backends\_asyncio.py", line 967, in run
    result = context.run(func, *args)
  File "c:\Users\AR ANSARI\AppData\Local\Programs\Python\Python313\Lib\site-
packages\gradio\utils.py", line 915, in wrapper
    response = f(*args, **kwargs)
  File "C:\Users\AR ANSARI\AppData\Local\Temp\ipykernel_11604\3383215200.py", line 4,
eda_analysis
    df = pd.read_csv(file.name)
         ^^
NameError: name 'pd' is not defined. Did you mean: 'id'?

```