```
!python -m venv venv

!venv\Scripts\python -m pip install --upgrade pip

Requirement already satisfied: pip in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (23.2.1)
Collecting pip
  Obtaining dependency information for pip from
https://files.pythonhosted.org/packages/b7/3f/945ef7ab14dc4f9d7f40288d
2df998d1837ee0888ec3659c813487572faa/pip-25.2-py3-none-
any.whl.metadata
  Downloading pip-25.2-py3-none-any.whl.metadata (4.7 kB)
Downloading pip-25.2-py3-none-any.whl (1.8 MB)
   ---------------------------------------- 0.0/1.8 MB ? eta -:--:--
   ---------------------------------------- 0.0/1.8 MB ? eta -:--:--
    --------------------------------------- 0.0/1.8 MB 435.7 kB/s eta
0:00:04
   -- ------------------------------------- 0.1/1.8 MB 871.5 kB/s eta
0:00:02
   ------------------------ --------------- 1.1/1.8 MB 7.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ------------------------------------ -- 1.7/1.8 MB 10.5 MB/s eta
```

```
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
   ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
```

```
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
  ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
```

```
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
    -------------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
```

```
        ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
        ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
        ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
        ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
        ----------------------------------- -- 1.7/1.8 MB 10.5 MB/s eta
0:00:01
        ----------------------------------- - 1.7/1.8 MB 377.8 kB/s eta
0:00:01
        ----------------------------------- 1.8/1.8 MB 392.6 kB/s eta
0:00:00
Installing collected packages: pip
  Attempting uninstall: pip
    Found existing installation: pip 23.2.1
    Uninstalling pip-23.2.1:
      Successfully uninstalled pip-23.2.1
Successfully installed pip-25.2

!venv\Scripts\python -m pip install flask pandas numpy scikit-learn
lightgbm

Requirement already satisfied: flask in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (3.1.1)
Requirement already satisfied: pandas in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (2.3.1)
Requirement already satisfied: numpy in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (2.3.2)
Requirement already satisfied: scikit-learn in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (1.7.1)
Requirement already satisfied: lightgbm in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (4.6.0)
Requirement already satisfied: blinker>=1.9.0 in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (from flask)
(1.9.0)
Requirement already satisfied: click>=8.1.3 in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (from flask)
(8.2.1)
Requirement already satisfied: itsdangerous>=2.2.0 in c:\users\hp\
desktop\jupyter projects\portfolio project\venv\lib\site-packages
(from flask) (2.2.0)
Requirement already satisfied: jinja2>=3.1.2 in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (from flask)
(3.1.6)
Requirement already satisfied: markupsafe>=2.1.1 in c:\users\hp\
desktop\jupyter projects\portfolio project\venv\lib\site-packages
(from flask) (3.0.2)
Requirement already satisfied: werkzeug>=3.1.0 in c:\users\hp\desktop\
```

```
jupyter projects\portfolio project\venv\lib\site-packages (from flask)
(3.1.3)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\hp\
desktop\jupyter projects\portfolio project\venv\lib\site-packages
(from pandas) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (from
pandas) (2025.2)
Requirement already satisfied: tzdata>=2022.7 in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (from
pandas) (2025.2)
Requirement already satisfied: scipy>=1.8.0 in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (from
scikit-learn) (1.16.1)
Requirement already satisfied: joblib>=1.2.0 in c:\users\hp\desktop\
jupyter projects\portfolio project\venv\lib\site-packages (from
scikit-learn) (1.5.1)
Requirement already satisfied: threadpoolctl>=3.1.0 in c:\users\hp\
desktop\jupyter projects\portfolio project\venv\lib\site-packages
(from scikit-learn) (3.6.0)
Requirement already satisfied: colorama in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (from click>=8.1.3-
>flask) (0.4.6)
Requirement already satisfied: six>=1.5 in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (from python-
dateutil>=2.8.2->pandas) (1.17.0)

!venv\scripts\python -m pip install ipykernel

Collecting ipykernel
  Downloading ipykernel-6.30.1-py3-none-any.whl.metadata (6.2 kB)
Collecting comm>=0.1.1 (from ipykernel)
  Downloading comm-0.2.3-py3-none-any.whl.metadata (3.7 kB)
Collecting debugpy>=1.6.5 (from ipykernel)
  Downloading debugpy-1.8.16-cp311-cp311-win_amd64.whl.metadata (1.4
kB)
Collecting ipython>=7.23.1 (from ipykernel)
  Downloading ipython-9.4.0-py3-none-any.whl.metadata (4.4 kB)
Collecting jupyter-client>=8.0.0 (from ipykernel)
  Downloading jupyter_client-8.6.3-py3-none-any.whl.metadata (8.3 kB)
Collecting jupyter-core!=5.0.*,>=4.12 (from ipykernel)
  Downloading jupyter_core-5.8.1-py3-none-any.whl.metadata (1.6 kB)
Collecting matplotlib-inline>=0.1 (from ipykernel)
  Using cached matplotlib_inline-0.1.7-py3-none-any.whl.metadata (3.9
kB)
Collecting nest-asyncio>=1.4 (from ipykernel)
  Using cached nest_asyncio-1.6.0-py3-none-any.whl.metadata (2.8 kB)
Collecting packaging>=22 (from ipykernel)
  Downloading packaging-25.0-py3-none-any.whl.metadata (3.3 kB)
Collecting psutil>=5.7 (from ipykernel)
```

```
  Downloading psutil-7.0.0-cp37-abi3-win_amd64.whl.metadata (23 kB)
Collecting pyzmq>=25 (from ipykernel)
  Downloading pyzmq-27.0.1-cp311-cp311-win_amd64.whl.metadata (6.0 kB)
Collecting tornado>=6.2 (from ipykernel)
  Downloading tornado-6.5.2-cp39-abi3-win_amd64.whl.metadata (2.9 kB)
Collecting traitlets>=5.4.0 (from ipykernel)
  Using cached traitlets-5.14.3-py3-none-any.whl.metadata (10 kB)
Requirement already satisfied: colorama in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (from
ipython>=7.23.1->ipykernel) (0.4.6)
Collecting decorator (from ipython>=7.23.1->ipykernel)
  Downloading decorator-5.2.1-py3-none-any.whl.metadata (3.9 kB)
Collecting ipython-pygments-lexers (from ipython>=7.23.1->ipykernel)
  Downloading ipython_pygments_lexers-1.1.1-py3-none-any.whl.metadata
(1.1 kB)
Collecting jedi>=0.16 (from ipython>=7.23.1->ipykernel)
  Downloading jedi-0.19.2-py2.py3-none-any.whl.metadata (22 kB)
Collecting prompt_toolkit<3.1.0,>=3.0.41 (from ipython>=7.23.1-
>ipykernel)
  Downloading prompt_toolkit-3.0.51-py3-none-any.whl.metadata (6.4 kB)
Collecting pygments>=2.4.0 (from ipython>=7.23.1->ipykernel)
  Downloading pygments-2.19.2-py3-none-any.whl.metadata (2.5 kB)
Collecting stack_data (from ipython>=7.23.1->ipykernel)
  Using cached stack_data-0.6.3-py3-none-any.whl.metadata (18 kB)
Collecting typing_extensions>=4.6 (from ipython>=7.23.1->ipykernel)
  Downloading typing_extensions-4.14.1-py3-none-any.whl.metadata (3.0
kB)
Collecting wcwidth (from prompt_toolkit<3.1.0,>=3.0.41-
>ipython>=7.23.1->ipykernel)
  Using cached wcwidth-0.2.13-py2.py3-none-any.whl.metadata (14 kB)
Collecting parso<0.9.0,>=0.8.4 (from jedi>=0.16->ipython>=7.23.1-
>ipykernel)
  Using cached parso-0.8.4-py2.py3-none-any.whl.metadata (7.7 kB)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\hp\
desktop\jupyter projects\portfolio project\venv\lib\site-packages
(from jupyter-client>=8.0.0->ipykernel) (2.9.0.post0)
Collecting platformdirs>=2.5 (from jupyter-core!=5.0.*,>=4.12-
>ipykernel)
  Downloading platformdirs-4.3.8-py3-none-any.whl.metadata (12 kB)
Collecting pywin32>=300 (from jupyter-core!=5.0.*,>=4.12->ipykernel)
  Downloading pywin32-311-cp311-cp311-win_amd64.whl.metadata (10 kB)
Requirement already satisfied: six>=1.5 in c:\users\hp\desktop\jupyter
projects\portfolio project\venv\lib\site-packages (from python-
dateutil>=2.8.2->jupyter-client>=8.0.0->ipykernel) (1.17.0)
Collecting executing>=1.2.0 (from stack_data->ipython>=7.23.1-
>ipykernel)
  Downloading executing-2.2.0-py2.py3-none-any.whl.metadata (8.9 kB)
Collecting asttokens>=2.1.0 (from stack_data->ipython>=7.23.1-
>ipykernel)
```

```
  Downloading asttokens-3.0.0-py3-none-any.whl.metadata (4.7 kB)
Collecting pure-eval (from stack_data->ipython>=7.23.1->ipykernel)
  Downloading pure_eval-0.2.3-py3-none-any.whl.metadata (6.3 kB)
Downloading ipykernel-6.30.1-py3-none-any.whl (117 kB)
Downloading comm-0.2.3-py3-none-any.whl (7.3 kB)
Downloading debugpy-1.8.16-cp311-cp311-win_amd64.whl (5.2 MB)
   -------------------------------------- 0.0/5.2 MB ? eta -:--:--
   -------------------------------------- --- 4.7/5.2 MB 23.8 MB/s eta
0:00:01
   -------------------------------------- 5.2/5.2 MB 17.5 MB/s
0:00:00
Downloading ipython-9.4.0-py3-none-any.whl (611 kB)
   -------------------------------------- 0.0/611.0 kB ? eta -:--:--
   -------------------------------------- 611.0/611.0 kB 21.8 MB/s
0:00:00
Downloading prompt_toolkit-3.0.51-py3-none-any.whl (387 kB)
Downloading jedi-0.19.2-py2.py3-none-any.whl (1.6 MB)
   -------------------------------------- 0.0/1.6 MB ? eta -:--:--
   -------------------------------------- 1.6/1.6 MB 20.8 MB/s
0:00:00
Using cached parso-0.8.4-py2.py3-none-any.whl (103 kB)
Downloading jupyter_client-8.6.3-py3-none-any.whl (106 kB)
Downloading jupyter_core-5.8.1-py3-none-any.whl (28 kB)
Using cached matplotlib_inline-0.1.7-py3-none-any.whl (9.9 kB)
Using cached nest_asyncio-1.6.0-py3-none-any.whl (5.2 kB)
Downloading packaging-25.0-py3-none-any.whl (66 kB)
Downloading platformdirs-4.3.8-py3-none-any.whl (18 kB)
Downloading psutil-7.0.0-cp37-abi3-win_amd64.whl (244 kB)
Downloading pygments-2.19.2-py3-none-any.whl (1.2 MB)
   -------------------------------------- 0.0/1.2 MB ? eta -:--:--
   -------------------------------------- 1.2/1.2 MB 20.5 MB/s
0:00:00
Downloading pywin32-311-cp311-cp311-win_amd64.whl (9.5 MB)
   -------------------------------------- 0.0/9.5 MB ? eta -:--:--
   --------------- -------------------- 4.2/9.5 MB 20.9 MB/s eta
0:00:01
   -------------------------------------- --- 8.7/9.5 MB 21.5 MB/s eta
0:00:01
   -------------------------------------- 9.5/9.5 MB 19.7 MB/s
0:00:00
Downloading pyzmq-27.0.1-cp311-cp311-win_amd64.whl (632 kB)
   -------------------------------------- 0.0/632.9 kB ? eta -:--:--
   -------------------------------------- 632.9/632.9 kB 11.6 MB/s
0:00:00
Downloading tornado-6.5.2-cp39-abi3-win_amd64.whl (445 kB)
Using cached traitlets-5.14.3-py3-none-any.whl (85 kB)
Downloading typing_extensions-4.14.1-py3-none-any.whl (43 kB)
Downloading decorator-5.2.1-py3-none-any.whl (9.2 kB)
Downloading ipython_pygments_lexers-1.1.1-py3-none-any.whl (8.1 kB)
```

```
Using cached stack_data-0.6.3-py3-none-any.whl (24 kB)
Downloading asttokens-3.0.0-py3-none-any.whl (26 kB)
Downloading executing-2.2.0-py2.py3-none-any.whl (26 kB)
Downloading pure_eval-0.2.3-py3-none-any.whl (11 kB)
Using cached wcwidth-0.2.13-py2.py3-none-any.whl (34 kB)
Installing collected packages: wcwidth, pywin32, pure-eval,
typing_extensions, traitlets, tornado, pyzmq, pygments, psutil,
prompt_toolkit, platformdirs, parso, packaging, nest-asyncio,
executing, decorator, debugpy, comm, asttokens, stack_data,
matplotlib-inline, jupyter-core, jedi, ipython-pygments-lexers,
jupyter-client, ipython, ipykernel

  -------------------------------------- 0/27 [wcwidth]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
- -------------------------------------- 1/27 [pywin32]
```

```
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 -  ------------------------------------  1/27 [pywin32]
 --  ----------------------------------  2/27 [pure-eval]
 -----  -------------------------------  4/27 [traitlets]
 -----  -------------------------------  4/27 [traitlets]
 ----  --------------------------------  4/27 [traitlets]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 -------  -----------------------------  5/27 [tornado]
 --------  ----------------------------  6/27 [pyzmq]
 --------  ----------------------------  6/27 [pyzmq]
 --------  ----------------------------  6/27 [pyzmq]
 --------  ----------------------------  6/27 [pyzmq]
 --------  ----------------------------  6/27 [pyzmq]
 --------  ----------------------------  6/27 [pyzmq]
 --------  ----------------------------  6/27 [pyzmq]
 ---------  ---------------------------  7/27 [pygments]
 ---------  ---------------------------  7/27 [pygments]
 ---------  ---------------------------  7/27 [pygments]
 ---------  ---------------------------  7/27 [pygments]
 ---------  ---------------------------  7/27 [pygments]
 ---------  ---------------------------  7/27 [pygments]
 ---------  ---------------------------  7/27 [pygments]
```

```
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    7/27 [pygments]
---------- -----------------------------    8/27 [psutil]
---------- -----------------------------    8/27 [psutil]
---------- -----------------------------    8/27 [psutil]
---------- -----------------------------    8/27 [psutil]
---------- -----------------------------    8/27 [psutil]
---------- -----------------------------    9/27 [prompt_toolkit]
```

```
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------ ------------------------------  9/27 [prompt_toolkit]
------------- ------------------------------ 10/27 [platformdirs]
------------- ------------------------------ 10/27 [platformdirs]
--------------- ---------------------------- 11/27 [parso]
--------------- ---------------------------- 11/27 [parso]
--------------- ---------------------------- 11/27 [parso]
--------------- ---------------------------- 11/27 [parso]
---------------- --------------------------- 12/27 [packaging]
---------------- --------------------------- 12/27 [packaging]
----------------- -------------------------- 13/27 [nest-asyncio]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
--------------------- ------------------ 16/27 [debugpy]
```

```
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
----------------------- --------------- 16/27 [debugpy]
-------------------------- ------------- 17/27 [comm]
-------------------------- ------------ 18/27 [asttokens]
-------------------------- ---------- 19/27 [stack_data]
----------------------------- ------- 21/27 [jupyter-core]
----------------------------- ------- 21/27 [jupyter-core]
----------------------------- ------- 21/27 [jupyter-core]
----------------------------- ------- 21/27 [jupyter-core]
----------------------------- ------- 21/27 [jupyter-core]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
------------------------------ ------- 22/27 [jedi]
```

```
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ------- 22/27 [jedi]
-------------------------------- ---- 24/27 [jupyter-client]
-------------------------------- ---- 24/27 [jupyter-client]
-------------------------------- ---- 24/27 [jupyter-client]
-------------------------------- ---- 24/27 [jupyter-client]
-------------------------------- ---- 24/27 [jupyter-client]
-------------------------------- ---- 24/27 [jupyter-client]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- -- 25/27 [ipython]
-------------------------------- - 26/27 [ipykernel]
-------------------------------- - 26/27 [ipykernel]
-------------------------------- - 26/27 [ipykernel]
-------------------------------- - 26/27 [ipykernel]
-------------------------------- - 26/27 [ipykernel]
-------------------------------- 27/27 [ipykernel]
```

```
Successfully installed asttokens-3.0.0 comm-0.2.3 debugpy-1.8.16
decorator-5.2.1 executing-2.2.0 ipykernel-6.30.1 ipython-9.4.0
ipython-pygments-lexers-1.1.1 jedi-0.19.2 jupyter-client-8.6.3
jupyter-core-5.8.1 matplotlib-inline-0.1.7 nest-asyncio-1.6.0
packaging-25.0 parso-0.8.4 platformdirs-4.3.8 prompt_toolkit-3.0.51
psutil-7.0.0 pure-eval-0.2.3 pygments-2.19.2 pywin32-311 pyzmq-27.0.1
stack_data-0.6.3 tornado-6.5.2 traitlets-5.14.3 typing_extensions-
4.14.1 wcwidth-0.2.13

!venv\Scripts\python -m ipykernel install --user --name=venv --
display-name "Python (venv)"

Installed kernelspec venv in C:\Users\HP\AppData\Roaming\jupyter\
kernels\venv

import joblib
best_model = joblib.load("sales_forecast_model.pkl")

%%writefile app.py
from flask import Flask, request, jsonify
import joblib
import pandas as pd

# Load model
model = joblib.load("sales_forecast_model.pkl")

app = Flask(__name__)

@app.route("/")
def home():
    return "🚀 Sales Forecast API is running!"

@app.route("/predict", methods=["POST"])
def predict():
    try:
        data = request.get_json()
        df = pd.DataFrame([data])  # Convert input JSON to DataFrame
        prediction = model.predict(df)[0]
        return jsonify({"prediction": float(prediction)})
    except Exception as e:
        return jsonify({"error": str(e)})

if __name__ == "__main__":
    app.run(debug=True)

Writing app.py

!start cmd /k venv\Scripts\python app.py
```

```python
import requests

url = "http://127.0.0.1:5000/predict"
data = {
    "feature1": 10,
    "feature2": 5,
    "feature3": 20,
    "feature4": 12,
    "feature5": 30,
    "feature6": 40,
    "feature7": 50,
    "feature8": 60,
    "feature9": 70,
    "feature10": 80,
    "feature11": 90,
    "feature12": 100
}
response = requests.post(url, json=data)

print("Status Code:", response.status_code)
print("Response:", response.json())

Status Code: 200
Response: {'prediction': 39334.18522344609}
```