In [1]:

```
import pandas as pd
import numpy as np
```

In [4]:

```
df = pd.read_csv("Salary_Data.csv")
df.head(5)
```

Out[4]:

	YearsExperience	Salary
0	1.1	39343.0
1	1.3	46205.0
2	1.5	37731.0
3	2.0	43525.0
4	2.2	39891.0

In [5]:

```
from sklearn.linear_model import LinearRegression
import pickle
```

In [6]:

```
X = df[['YearsExperience']]
y = df['Salary']
```

In [7]:

```
# Train a linear regression model
model = LinearRegression()
model.fit(X, y)
```

Out[7]:

```
LinearRegression()
```

In [8]:

```
# Save the model to disk
filename = 'salary_model.pkl'
pickle.dump(model, open(filename, 'wb'))
```

In [9]:

```
from flask import Flask, jsonify, request
import pickle
```

In [11]:

```
# Load the model from disk
filename = 'salary_model.pkl'
model = pickle.load(open(filename, 'rb'))
```

In [12]:

```
# Create a Flask app
app = Flask(__name__)
```

In [13]:

```
# Define a predict route
@app.route('/predict', methods=['POST'])
def predict():
    # Get the input data from the request body
    data = request.get_json()
    years_experience = data['YearsExperience']

    # Predict the salary using the trained model
    salary = model.predict([[years_experience]])

    # Return the predicted salary in JSON format
    return jsonify({'salary': salary.tolist()[0]})
```

In [21]:

```
# Run the app
if __name__ == '__main__':
    app.run(port=6000, debug=True)
```

```
 * Serving Flask app "__main__" (lazy loading)
 * Environment: production
   WARNING: This is a development server. Do not use it in a production deployment.
   Use a production WSGI server instead.
 * Debug mode: on
 * Running on http://127.0.0.1:6000/ (http://127.0.0.1:6000/) (Press CTRL+C to quit)
 * Restarting with watchdog (fsevents)
Traceback (most recent call last):
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/ipykernel_launcher.py", line 16, in <module>
    app.launch_new_instance()
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/traitlets/config/application.py", line 845, i
n launch_instance
    app.initialize(argv)
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/traitlets/config/application.py", line 88, in
inner
    return method(app, *args, **kwargs)
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/ipykernel/kernelapp.py", line 632, in initial
ize
    self.init_sockets()
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/ipykernel/kernelapp.py", line 282, in init_so
ckets
    self.shell_port = self._bind_socket(self.shell_socket, self.shell_port)
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/ipykernel/kernelapp.py", line 229, in _bind_s
ocket
    return self._try_bind_socket(s, port)
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/ipykernel/kernelapp.py", line 205, in _try_bi
nd_socket
    s.bind("tcp://%s:%i" % (self.ip, port))
  File "/Users/songxiaoke/opt/anaconda3/lib/python3.9/site-packages/zmq/sugar/socket.py", line 214, in bind
    super().bind(addr)
  File "zmq/backend/cython/socket.pyx", line 540, in zmq.backend.cython.socket.Socket.bind
  File "zmq/backend/cython/checkrc.pxd", line 28, in zmq.backend.cython.checkrc._check_rc
zmq.error.ZMQError: Address already in use

An exception has occurred, use %tb to see the full traceback.

SystemExit: 1
```

In [ ]:

```
```