```
!pip install gradio
```

```
Collecting fastapi<1.0,>=0.115.2 (from gradio)
    Downloading fastapi-0.115.12-py3-none-any.whl.metadata (27 kB)
  Collecting ffmpy (from gradio)
    Downloading ffmpy-0.5.0-py3-none-any.whl.metadata (3.0 kB)
  Collecting gradio-client==1.10.0 (from gradio)
    Downloading gradio_client-1.10.0-py3-none-any.whl.metadata (7.1 kB)
  Collecting groovy~=0.1 (from gradio)
    Downloading groovy-0.1.2-py3-none-any.whl.metadata (6.1 kB)
  Requirement already satisfied: httpx>=0.24.1 in /usr/local/lib/python3.11/dist-packages (from gradio) (0.28.1)
  Requirement already satisfied: huggingface-hub>=0.28.1 in /usr/local/lib/python3.11/dist-packages (from gradio) (0.30.2)
  Requirement already satisfied: jinja2<4.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (3.1.6)
  Requirement already satisfied: markupsafe<4.0,>=2.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (3.0.2)
  Requirement already satisfied: numpy<3.0,>=1.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (2.0.2)
  Requirement already satisfied: orjson~=3.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (3.10.18)
  Requirement already satisfied: packaging in /usr/local/lib/python3.11/dist-packages (from gradio) (24.2)
  Requirement already satisfied: pandas<3.0,>=1.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (2.2.2)
  Requirement already satisfied: pillow<12.0,>=8.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (11.2.1)
  Requirement already satisfied: pydantic<2.12,>=2.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (2.11.4)
  Collecting pydub (from gradio)
    Downloading pydub-0.25.1-py2.py3-none-any.whl.metadata (1.4 kB)
  Collecting python-multipart>=0.0.18 (from gradio)
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  Requirement already satisfied: pyyaml<7.0,>=5.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (6.0.2)
  Collecting ruff>=0.9.3 (from gradio)
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  Collecting safehttpx<0.2.0,>=0.1.6 (from gradio)
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  Collecting semantic-version~=2.0 (from gradio)
    Downloading semantic_version-2.10.0-py2.py3-none-any.whl.metadata (9.7 kB)
  Collecting starlette<1.0,>=0.40.0 (from gradio)
    Downloading starlette-0.46.2-py3-none-any.whl.metadata (6.2 kB)
  Collecting tomlkit<0.14.0,>=0.12.0 (from gradio)
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  Requirement already satisfied: typing-extensions~=4.0 in /usr/local/lib/python3.11/dist-packages (from gradio) (4.13.2)
  Collecting uvicorn>=0.14.0 (from gradio)
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  Requirement already satisfied: fsspec in /usr/local/lib/python3.11/dist-packages (from gradio-client==1.10.0->gradio) (2025.3.2)
  Requirement already satisfied: websockets<16.0,>=10.0 in /usr/local/lib/python3.11/dist-packages (from gradio-client==1.10.0->grad
  Requirement already satisfied: idna>=2.8 in /usr/local/lib/python3.11/dist-packages (from anyio<5.0,>=3.0->gradio) (3.10)
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  Requirement already satisfied: h11>=0.16 in /usr/local/lib/python3.11/dist-packages (from httpcore==1.*->httpx>=0.24.1->gradio) (0
  Requirement already satisfied: filelock in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.28.1->gradio) (3.18.0)
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  Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.28.1->gradio) (4.6
  Requirement already satisfied: python-dateutil>=2.8.2 in /usr/local/lib/python3.11/dist-packages (from pandas<3.0,>=1.0->gradio) (
  Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.11/dist-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
  Requirement already satisfied: tzdata>=2022.7 in /usr/local/lib/python3.11/dist-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
  Requirement already satisfied: annotated-types>=0.6.0 in /usr/local/lib/python3.11/dist-packages (from pydantic<2.12,>=2.0->gradic
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  Requirement already satisfied: click>=8.0.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0,>=0.12->gradio) (8.1.8)
  Requirement already satisfied: shellingham>=1.3.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0,>=0.12->gradio) (1.5
  Requirement already satisfied: rich>=10.11.0 in /usr/local/lib/python3.11/dist-packages (from typer<1.0,>=0.12->gradio) (13.9.4)
  Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.11/dist-packages (from python-dateutil>=2.8.2->pandas<3.0,>=1.0-
  Requirement already satisfied: markdown-it-py>=2.2.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->typer<1.0,>=(
```

```python
import pandas as pd
import gradio as gr
from sklearn.metrics.pairwise import cosine_similarity

# --- Dummy Data ---

movies_data = [
    {"movie_id": 1, "title": "The Notebook", "genres": "Romance|Drama"},
    {"movie_id": 2, "title": "Titanic", "genres": "Romance|Drama"},
    {"movie_id": 3, "title": "Inception", "genres": "Sci-Fi|Thriller"},
    {"movie_id": 4, "title": "La La Land", "genres": "Romance|Musical"},
    {"movie_id": 5, "title": "The Matrix", "genres": "Sci-Fi|Action"},
    {"movie_id": 6, "title": "Pride & Prejudice", "genres": "Romance|Drama"}
]
users_data = [
    {"user_id": 1, "name": "Alice", "romance": 5, "sci-fi": 2, "drama": 4, "action": 1, "thriller": 2, "musical": 3},
    {"user_id": 2, "name": "Bob", "romance": 4, "sci-fi": 3, "drama": 3, "action": 2, "thriller": 3, "musical": 4}
]

# Convert to DataFrames
movies_df = pd.DataFrame(movies_data)
users_df = pd.DataFrame(users_data)
user_names = users_df['name'].tolist()

# --- Logic ---
```

```python
def get_user_by_name(name):
    return users_df[users_df['name'] == name].iloc[0]

def match_score(user1, user2):
    prefs = ['romance', 'sci-fi', 'drama', 'action', 'thriller', 'musical']
    vec1 = user1[prefs].values.reshape(1, -1)
    vec2 = user2[prefs].values.reshape(1, -1)
    return cosine_similarity(vec1, vec2)[0][0]

def recommend_movies(user1, user2):
    prefs = ['romance', 'sci-fi', 'drama', 'action', 'thriller', 'musical']
    avg_profile = {g: (user1[g] + user2[g]) / 2 for g in prefs}

    def movie_score(genres_str):
        score = 0
        for g in genres_str.lower().split('|'):
            score += avg_profile.get(g, 0)
        return score

    movies_df['score'] = movies_df['genres'].apply(movie_score)
    top = movies_df.sort_values(by='score', ascending=False).head(5)
    return top[['title', 'genres']].values.tolist()

# --- Gradio Interface Function ---

def recommend(user1_name, user2_name):
    user1 = get_user_by_name(user1_name)
    user2 = get_user_by_name(user2_name)
    score = round(match_score(user1, user2), 2)
    recs = recommend_movies(user1, user2)
    recs_output = "\n".join([f"{title} ({genres})" for title, genres in recs])
    return f"❤️ Compatibility Score: {score}\n\n🎬 Recommended Movies:\n{recs_output}"

# --- Gradio UI ---

demo = gr.Interface(
    fn=recommend,
    inputs=[
        gr.Dropdown(choices=user_names, label="User 1"),
        gr.Dropdown(choices=user_names, label="User 2")
    ],
    outputs="text",
    title="🎥 AI Romantic Movie Recommender",
    description="Select two users to get a compatibility score and recommended romantic movies!"
)

# --- Launch App ---

if __name__ == "__main__":
    demo.launch()
```

It looks like you are running Gradio on a hosted a Jupyter notebook. For the Gradio app to work, sharing must be enabled. Automatica

Colab notebook detected. To show errors in colab notebook, set debug=True in launch()
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🎥 AI Romantic Movie Recommender

Select two users to get a compatibility score and recommended romantic movies!

User 1	output
Bob ▾	❤️ Compatibility Score: 1.0
User 2	🎬 Recommended Movies:
Bob ▾	La La Land (Romance|Musical)
	The Notebook (Romance|Drama)
	Titanic (Romance|Drama)
	Pride & Prejudice (Romance|Drama)
	Inception (Sci-Fi|Thriller)

Clear   Submit

Flag

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🎥 AI Romantic Movie Recommender