

Build a Recommendation System Music

<https://www.kaggle.com/datasets/vatsalmavani/spotify-dataset>

```
import pandas as pd
from surprise import Dataset, Reader
from surprise import SVD
from surprise.model_selection import train_test_split
from surprise import accuracy

# Load the Spotify dataset
# Preprocess the data if necessary

# Create a Surprise dataset
reader = Reader(rating_scale=(0, 100))
data = Dataset.load_from_df(df[['user_id', 'track_id', 'rating']], reader)

# Split the data into train and test sets
trainset, testset = train_test_split(data, test_size=0.2)

# Build and train an SVD collaborative filtering model
model = SVD()
model.fit(trainset)

# Make predictions on the test set
predictions = model.test(testset)

# Calculate RMSE (Root Mean Square Error) as an evaluation metric
rmse = accuracy.rmse(predictions)
print("RMSE:", rmse)
```

```
# Make recommendations for a user
user_id = "user123"
user_recommendations = model.get_neighbors(trainset.to_inner_uid(user_id), k=10)
print("Recommendations for", user_id, ":", user_recommendations)
```