

```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestRegressor
from sklearn.metrics import mean_squared_error, r2_score
import matplotlib.pyplot as plt

df = pd.read_csv('/content/drive/MyDrive/car_prices_dataset.csv')
print(df.head())
```

	Age (years)	Mileage (miles)	Price (dollars)
0	1	10000	20000
1	2	25000	18000
2	3	35000	15000
3	4	50000	13000
4	5	60000	10000

```
X = df[['Age (years)', 'Mileage (miles)']]
y = df['Price (dollars)']
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y,
test_size=0.2, random_state=42)
```

```
rf_regressor = RandomForestRegressor(n_estimators=100,
random_state=42)
```

```
rf_regressor.fit(X_train, y_train)
```

```
RandomForestRegressor(random_state=42)
```

```
y_pred = rf_regressor.predict(X_test)
```

```
mse = mean_squared_error(y_test, y_pred)
r2 = r2_score(y_test, y_pred)
print(f'Mean Squared Error (MSE): {mse}')
print(f'R-squared (R2): {r2}')
```

```
Mean Squared Error (MSE): 554000.0
R-squared (R2): 0.9886938775510205
```

```
feature_importances = rf_regressor.feature_importances_
features = X.columns
```

```
plt.figure(figsize=(10, 6))
plt.bar(features, feature_importances, color='skyblue')
plt.xlabel('Features')
plt.ylabel('Importance')
plt.title('Feature Importance in Random Forest Model for Car Prices')
plt.show()
```

