```python
import pandas as pd
import numpy as np
from sklearn.datasets import load_iris
from sklearn.model_selection import cross_val_score
from sklearn.ensemble import RandomForestClassifier
from sklearn.feature_selection import SelectFromModel
```

```python
# Load the Iris dataset
iris = load_iris()
X = iris.data
y = iris.target
feature_names = iris.feature_names
```

```python
df = pd.DataFrame(X, columns=feature_names)
df['target'] = y
```

```python
selected_features = []
remaining_features = list(range(X.shape[1]))
best_score = 0.0
model = RandomForestClassifier(random_state=42)
```

```python
while remaining_features:
    scores = []
    for feature in remaining_features:
        # Create a temporary feature set
        temp_features = selected_features + [feature]

        score = cross_val_score(model, X[:, temp_features], y, cv=5,
scoring='accuracy').mean()
        scores.append((score, feature))


    scores.sort(reverse=True, key=lambda x: x[0])
    best_new_score, best_feature = scores[0]


    if best_new_score > best_score:
        selected_features.append(best_feature)
        remaining_features.remove(best_feature)
        best_score = best_new_score
        print(f"Selected feature: {feature_names[best_feature]}, Score:
{best_score:.4f}")
    else:
        break


selected_feature_names = [feature_names[i] for i in selected_features]
print("Selected features:", selected_feature_names)
```

```
Selected feature: petal width (cm), Score: 0.9533
```

```
Selected feature: petal length (cm), Score: 0.9600
Selected feature: sepal width (cm), Score: 0.9600
Selected feature: sepal length (cm), Score: 0.9667
Selected features: ['petal width (cm)', 'petal length (cm)', 'sepal width
(cm)', 'sepal length (cm)']
```

In [ ]: