



```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestClassifier
```

```
data=pd.read_csv('/content/Iris.csv')
data.head()
```



	Id	SepallLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa

```
data.isnull().sum()
```

```
Id      0
SepallLengthCm  0
SepalWidthCm  0
PetalLengthCm  0
PetalWidthCm  0
Species      0
dtype: int64
```

```
data.columns
```

```
Index(['Id', 'SepallLengthCm', 'SepalWidthCm', 'PetalLengthCm', 'PetalWidthCm',
      'Species'],
      dtype='object')
```

```
a=['SepallLengthCm', 'SepalWidthCm', 'PetalLengthCm', 'PetalWidthCm', 'Species']
```

```
for i in a:
```

```
    print(i,data[i].nunique())
```

```
SepallLengthCm 35
SepalWidthCm 23
PetalLengthCm 43
PetalWidthCm 22
Species 3
```

```
x=data.drop('Species',axis=1)
```

```
y=data['Species']
```

```
xtrain,xtest,ytrain,ytest=train_test_split(x,y,test_size=0.2,random_state=42)
```

```
from sklearn.ensemble import RandomForestClassifier
rf=RandomForestClassifier(random_state=42)
model=rf.fit(xtrain,ytrain)
p=model.predict(xtest)
```

```
from sklearn.metrics import accuracy_score
```

```
accuracy_score(ytest,p)*100
```

```
100.0
```

