

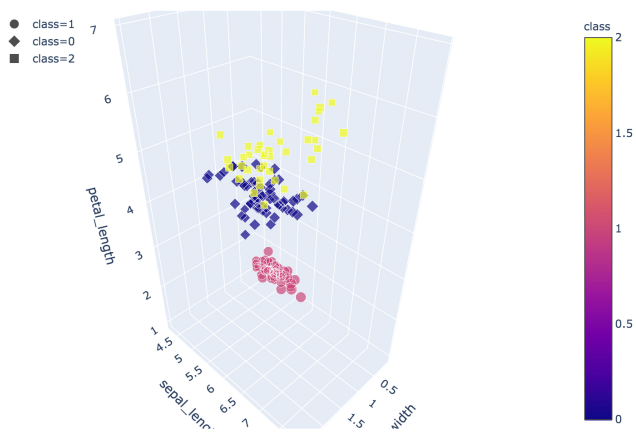
```
# Initial imports
```

sepal length sepal width petal length petal width

```
# Initializing model
model = KMeans(n_clusters=
```

```
# Get predictions
predictions = model.predict(test_data)
```

```
# Add a new class column to df_iris
```



Finding the best value for k using the Elbow Curve

```
[9]: inertia = []
k = list(range(1, 11))

# Looking for the best k
for i in k:
    km = KMeans(n_clusters=i, random_state=0)
    km.fit(df_iris)
    inertia.append(km.inertia_)

# Define a DataFrame to plot the Elbow Curve using hvPlot
elbow_data = {"k": k, "inertia": inertia}
df_elbow = pd.DataFrame(elbow_data)
df_elbow.hvplot.line(x="k", y="inertia", title="Elbow Curve", xticks=k)
```

[9]:

