Appendix - Codes

In [1]:
```
from sklearn.datasets import load_iris
iris_dataset = load_iris()
import numpy as np
import matplotlib.pyplot as plt
```

In [2]:
```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(
    iris_dataset['data'], iris_dataset['target'], random_state=0)
```

In [3]:
```
accuracy_score = []
from sklearn.neighbors import KNeighborsClassifier
for i in range(1, 40):
    knn = KNeighborsClassifier(n_neighbors=i)
    knn.fit(X_train, y_train)
    pred_i = knn.predict(X_test)
    accuracy_score.append(np.mean(pred_i == y_test))
plt.figure(figsize=(5, 3))
plt.plot(range(1, 40), accuracy_score, color='blue', linestyle='--',
         markersize=10, markerfacecolor='green', marker='o')
plt.title('K versus Accuracy Score')
plt.xlabel('K')
plt.ylabel('Accuracy Score')
```

Out[3]:
```
Text(0, 0.5, 'Accuracy Score')
```