21.07.2021

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1 PYTHON MODULE

1.1 Exercise 1

Determine the output of the three following blocks of Python code. Justify your answer with a short explanation.

[ ]:
```
def bc(n, k):
    C = [0 for x in range(k+1)]
    C[0] = 1
    for i in range(n+1):
        for j in range(min(i, k),0,-1):
            C[j] = C[j] + C[j-1]
    return C[k]

bc(4,2)
```

[ ]:
```
list = ['Eleven', 'Seven', 'One', 'Four']
list.sort(key = lambda x: len(x))
print(list)
```

[ ]:
```
import numpy as np
A = [1, 3]
B = [2, 5]
M = np.array([A,B])
print(M.T)
```

1.2 Exercise 2

Describe at least two ensemble methods for machine learning, and explain how they address the bias-variance trade off.