Practice Questions of Topic 2

We download the historical data of S&P500.

And define it as:

**sp500=stocks["sp500"]**

Then we look at the head of the data:

**sp500.head(10)**

which gives us the following result:

2013-09-06 1655.08

2013-09-09 NaN

2013-09-10 NaN

2013-09-11 1683.99

2013-09-12 1689.13

2013-09-13 1683.42

2013-09-17 1697.60

2013-09-18 1704.76

2013-09-19 1725.52

2013-09-20 1722.34

Question 1-2:

We then want to fill in the missing value with the number with code:

**sp500.fillna(method="bfill").head()**

What will be the two missing values?

A. 1655.08

1655.08

B. 1655.08

1683.99

C. 1683.99

1683.99

D. NaN

1683.99

**What if we use this code:**

**sp500.fillna(method="ffill").head()**

A. 1655.08

NaN

B. 1655.08

1655.08

C. 1655.08

1683.99

D. NaN

1683.99

Question 3.

We then want to clear out missing values with code:

**stocks=stocks.dropna(axis=1)**

Then we drop the \_\_\_\_ with missing values

A. rows

B. 1st row

C. columns

D. 1st column

Question 4.

We then standardize the S&p500 data into those with the range [0,1], using formula:

then create a new column “sp500\_return\_dummy” with code:

**stocks["sp500\_return\_dummy"]=[1 if x >0 else 0 for x in stocks["sp500\_return"]]**

sp500\_return sp500\_return\_dummy

2013-09-13 -0.003380

2013-09-17 0.008423

2013-09-18 0.004218

... ...

What number should be in column “sp500\_return\_dummy”?

A. 1

0

0

B. 1

1

0

C. 0

1

1

D. 1

0

1

Question 5-6.

With code:

**stocks.shape**

we find that there are 973 rows and 12 columns in our data, we then slice the data into two sets: train set and test set. If we want the ratio to be 9:1, which of the following code is correct:

A. train\_size= 973\*0.9

test\_size=973-train\_size

B. train\_size= 973\*0.1

test\_size=973-train\_size

C. train\_size= int(973\*0.9)

test\_size=int(973\*0.1)

D. train\_size= int(973\*0.9)

test\_size=973-train\_size

with the correct code in question5, how many rows of data are there in train set and test set:

A. 876; 97

B 875; 97

C. 876; 98

D. 875; 98