**1. Create a DataFrame:**

cols = pd.MultiIndex.from\_tuples([ (x,y) for x in ['A','B','C'] for y in ['P','Q']])

df = pd.DataFrame(np.random.randn(2,6),index=['n','m'],columns=cols);

**Output:**



**2. Performing an Arithmetic operation:**

df = df.div(df['C'],level=1);

This function will divide every column with column ‘C’ and across every index and returning level to be 1.

**Output:**



**3. Performing Slicing:**

df.xs('A', axis=1, level=0)

Returns a cross-section (row(s) or column(s)) from the Series/DataFrame. Defaults to cross-section on the rows (axis=0). In this case, it returns cross-section column A where axis=1 represent that cross-section is done on columns.

**Output:**

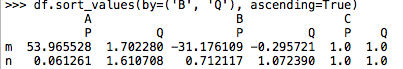


**4. Performing Sorting:**

df.sort\_values(by=('B', 'Q'), ascending=True)

This function will sort the values in a Dataframe by column = B and it’s index = Q. Ascending = True means that it is arranged in an ascending order.

**Output:**

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**5. Prepending a level to a MultiIndex:**

df['Firstlevel'] = 'Foo'

df.set\_index('Firstlevel', append=True, inplace=True)

To do prepending, first add it as a normal column and then append it to the current index as shown above. This function sets the index first and name it according to the assigned name.

**Output:**

