In [1]:
```
'hello'.upper()
```

Out[1]:
```
'HELLO'
```

In [2]:
```
import pandas as pd
orders=pd.read_table('http://bit.ly/chiporders')
orders.head()
```

Out[2]:

	order_id	quantity	item_name	choice_description	item_price
0	1	1	Chips and Fresh Tomato Salsa	NaN	$2.39
1	1	1	Izze	[Clementine]	$3.39
2	1	1	Nantucket Nectar	[Apple]	$3.39
3	1	1	Chips and Tomatillo-Green Chili Salsa	NaN	$2.39
4	2	2	Chicken Bowl	[Tomatillo-Red Chili Salsa (Hot), [Black Beans...	$16.98

In [3]:
```
orders.item_name.str.upper().head()
```

Out[3]:
```
0             CHIPS AND FRESH TOMATO SALSA
1                                     IZZE
2                         NANTUCKET NECTAR
3    CHIPS AND TOMATILLO-GREEN CHILI SALSA
4                             CHICKEN BOWL
Name: item_name, dtype: object
```

In [4]:
```
orders.head()
```

Out[4]:

	order_id	quantity	item_name	choice_description	item_price
0	1	1	Chips and Fresh Tomato Salsa	NaN	$2.39
1	1	1	Izze	[Clementine]	$3.39
2	1	1	Nantucket Nectar	[Apple]	$3.39
3	1	1	Chips and Tomatillo-Green Chili Salsa	NaN	$2.39
4	2	2	Chicken Bowl	[Tomatillo-Red Chili Salsa (Hot), [Black Beans...	$16.98

In [5]:
```
orders.item_name=orders.item_name.str.upper()
orders.head()
```

Out[5]:

	order_id	quantity	item_name	choice_description	item_price
0	1	1	CHIPS AND FRESH TOMATO SALSA	NaN	$2.39
1	1	1	IZZE	[Clementine]	$3.39
2	1	1	NANTUCKET NECTAR	[Apple]	$3.39
3	1	1	CHIPS AND TOMATILLO-GREEN CHILI SALSA	NaN	$2.39
4	2	2	CHICKEN BOWL	[Tomatillo-Red Chili Salsa (Hot), [Black Beans...	$16.98

In [6]:
```
orders.item_name.str.contains('CHICKEN').head()
```

Out[6]:
```
0    False
1    False
2    False
3    False
4     True
Name: item_name, dtype: bool
```

In [7]:
```
orders[orders.item_name.str.contains('CHICKEN')].head()
```

Out[7]:

	order_id	quantity	item_name	choice_description	item_price
4	2	2	CHICKEN BOWL	[Tomatillo-Red Chili Salsa (Hot), [Black Beans...	$16.98
5	3	1	CHICKEN BOWL	[Fresh Tomato Salsa (Mild), [Rice, Cheese, Sou...	$10.98
11	6	1	CHICKEN CRISPY TACOS	[Roasted Chili Corn Salsa, [Fajita Vegetables,...	$8.75
12	6	1	CHICKEN SOFT TACOS	[Roasted Chili Corn Salsa, [Rice, Black Beans,...	$8.75
13	7	1	CHICKEN BOWL	[Fresh Tomato Salsa, [Fajita Vegetables, Rice,...	$11.25

In [8]:
```
orders.iloc[[0]].item_name.str.len()
```

Out[8]:
```
0    28
Name: item_name, dtype: int64
```

In [9]:
```
orders.iloc[[1]].item_name.str.len()
```

Out[9]:
```
1    4
Name: item_name, dtype: int64
```

In [10]:
```
orders.choice_description.head()
```

Out[10]:
```
0                                                  NaN
1                                          [Clementine]
2                                               [Apple]
3                                                  NaN
4    [Tomatillo-Red Chili Salsa (Hot), [Black Beans...
Name: choice_description, dtype: object
```

In [11]:
```
orders.choice_description.str.replace('[','').head()
```

Out[11]:
```
0                                                  NaN
1                                           Clementine]
2                                                Apple]
3                                                  NaN
4    Tomatillo-Red Chili Salsa (Hot), Black Beans, ...
Name: choice_description, dtype: object
```

In [12]:
```
orders.choice_description.str.replace('[','').str.replace(']','').head()
```

Out[12]:
```
0                                                  NaN
1                                           Clementine
2                                                Apple
3                                                  NaN
4    Tomatillo-Red Chili Salsa (Hot), Black Beans, ...
Name: choice_description, dtype: object
```

In [13]:
```
drinks=pd.read_csv('http://bit.ly/drinksbycountry')
drinks.dtypes
```

Out[13]:
```
country                          object
beer_servings                     int64
spirit_servings                   int64
wine_servings                     int64
total_litres_of_pure_alcohol    float64
continent                        object
dtype: object
```

In [15]:
```
drinks.beer_servings=drinks.beer_servings.astype(float)
drinks.dtypes
```

Out[15]:
```
country                          object
beer_servings                   float64
spirit_servings                   int64
wine_servings                     int64
total_litres_of_pure_alcohol    float64
continent                        object
dtype: object
```

In [17]:
```
drinks=pd.read_csv('http://bit.ly/drinksbycountry',dtype={'beer_servings':floa
t})
drinks.dtypes
```

Out[17]:
```
country                          object
beer_servings                   float64
spirit_servings                   int64
wine_servings                     int64
total_litres_of_pure_alcohol    float64
continent                        object
dtype: object
```

In [18]:
```
orders=pd.read_table('http://bit.ly/chiporders')
orders.head()
```

Out[18]:

	order_id	quantity	item_name	choice_description	item_price
0	1	1	Chips and Fresh Tomato Salsa	NaN	$2.39
1	1	1	Izze	[Clementine]	$3.39
2	1	1	Nantucket Nectar	[Apple]	$3.39
3	1	1	Chips and Tomatillo-Green Chili Salsa	NaN	$2.39
4	2	2	Chicken Bowl	[Tomatillo-Red Chili Salsa (Hot), [Black Beans...	$16.98

In [19]:
```
orders.dtypes
```

Out[19]:
```
order_id              int64
quantity              int64
item_name            object
choice_description   object
item_price           object
dtype: object
```

In [23]:
```
orders.item_price.str.replace('$','').astype(float).mean()
```

Out[23]:
```
7.464335785374397
```

In [24]:
```
orders.item_name.str.contains('Chicken').head()
```

Out[24]:
```
0    False
1    False
2    False
3    False
4     True
Name: item_name, dtype: bool
```

In [25]:
```
orders.item_name.str.contains('Chicken').astype(int).head()
```

Out[25]:
```
0    0
1    0
2    0
3    0
4    1
Name: item_name, dtype: int32
```