

Python read CSV to string conversion

Asked 1 year, 8 months ago Active 1 year, 8 months ago Viewed 4k times

I have a CSV with following values

2 ID, Value
1, a
2, b
3, c

How can I convert this csv to following string using Python

```
[('ID', 'Value'), (1, 'a'), (2, 'b'), (3, 'c')]
```

I was trying with the following code

```
with open('sample.csv', 'rb') as csvfile:
    reader = csv.reader(csvfile, delimiter=' ', quotechar='|')
    for row in reader:
        data = ', '.join(row)
        rows.append(data)
print rows
```

Am getting following output only

```
['ID','Value', '1','a', '2','b', '3','c']
```

python

csv

asked Dec 6 '17 at 9:33



V-T

459 7 19

[('ID', 'Value'), (1, 'a'), (2, 'b'), (3, 'c')] isn't a string. It's a list of tuples. The first tuple contains 2 strings, the other tuples contain an int and a string. So do you want that list, or do you really want a string representation of that list? – [PM 2Ring](#) Dec 6 '17 at 10:25

I just want to read the csv that contains two columns like in the question and then need to convert to above mentioned format(even its a string or list or tuples). Am not good in Python. So saying the above representation as string – [V-T](#) Dec 6 '17 at 10:28

Yes, thats working – [V-T](#) Dec 6 '17 at 10:38

2 Answers

To produce the list `[('ID', 'Value'), (1, 'a'), (2, 'b'), (3, 'c')]` from that CSV data you need to convert the number strings to integer. Here's one way to do that in Python 2.

1

```
import csv

data = []
with open('sample.csv', 'rb') as csvfile:
    reader = csv.reader(csvfile, skipinitialspace=True)
    data.append(tuple(next(reader)))
    for num, val in reader:
        data.append((int(num), val))

print data
```

output

```
[('ID', 'Value'), (1, 'a'), (2, 'b'), (3, 'c')]
```

The `csv.reader` yields each row of the CSV data as a list. We need to extract the items from that list and convert the 1st one to an `int`. And then we can pack the two items into a tuple and append it to the `data` list. However, the header line contains two strings, so we don't want to perform that conversion on the header line.

This code:

```
data.append(tuple(next(reader)))
```

gets the header line and just converts it to a tuple and appends the result to our `data` list.

answered Dec 6 '17 at 10:33



PM 2Ring

45k 4 46 107

thats working well. – [V-T](#) Dec 6 '17 at 10:38

If the csv is having more columns then is there any general method to this? – [V-T](#) Dec 6 '17 at 10:45

@PraveenVT Sure, but the best way to do it depends on the types of data in the other columns, eg if there are numbers that need to be converted to `int` or `float`. OTOH, if you just want to read the CSV data and write it back out as a different file format then there's not need to perform that conversion. I suggest you add a short example of your input data with more columns to your new question, and clearly show the desired output format. – [PM 2Ring](#) Dec 6 '17 at 11:01

Ok, let me create one sample, but then similar to real data – [V-T](#) Dec 6 '17 at 11:03

added a short example in my new question stackoverflow.com/questions/47672157/... – [V-T](#) Dec 6 '17 at 11:15

Do not read with `rb` but just `r` :

0

```
with open('sample.csv', 'r') as csvfile:
    csvtext = csvfile.readlines()

mylist = []
for line in csvtext:
    mylist.append(tuple(line.strip().split(', ')))
print(mylist)
```

answered Dec 6 '17 at 9:40

**mrCarnivore**

2,150 1 6 25

OP has no issue with it because he probably runs python 2 (in python 3 it crashes immediately). But you're right (that doesn't answer the question though) – [Jean-François Fabre](#) ♦ Dec 6 '17 at 9:42 ✎

But am getting this out put [('ID,Value'), ('1,a'), ('2,b'), ('3,c,')] Instead i need, [('ID', 'Value'), (1, 'a'), (2, 'b'), (3, 'c')] – [V-T](#) Dec 6 '17 at 9:46

That means, I need single quotes for character and no quotes for numeric. Or even singles quotes for all value also fine – [V-T](#) Dec 6 '17 at 9:57

No. From my solution you are getting: [('ID', 'Value'), ('1', 'a'), ('2', 'b'), ('3', 'c')] which has single quotes for all values as you just requested... – [mrCarnivore](#) Dec 6 '17 at 10:19

@mrCarnivore No, am getting like this only [('ID,Value'), ('1,a'), ('2,b'), ('3,c,')] – [V-T](#) Dec 6 '17 at 11:19
