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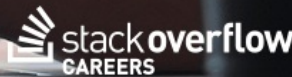


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## Catch exception gets UnboundLocalError

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I wrote a crawler to fetch information out of an Q&A website. Since not all the fields are presented in a page all the time, I used multiple try-excepts to handle the situation.

```
def answerContentExtractor( loginSession, questionLinkQueue , answerContentList) :
    while True:
        URL = questionLinkQueue.get()
        try:
            response = loginSession.get(URL,timeout = MAX_WAIT_TIME)
            raw_data = response.text

            #These fields must exist, or something went wrong...
            questionId = re.findall(Regex,raw_data)[0]
            answerId = re.findall(Regex,raw_data)[0]
            title = re.findall(Regex,raw_data)[0]

        except requests.exceptions.Timeout ,IndexError:
            print >> sys.stderr, URL + " extraction error..."
            questionLinkQueue.task_done()
            continue

        try:
            questionInfo = re.findall(Regex,raw_data)[0]
        except IndexError:
            questionInfo = ""

        try:
            answerContent = re.findall(Regex,raw_data)[0]
        except IndexError:
            answerContent = ""

        result = {
            'questionId' : questionId,
            'answerId' : answerId,
            'title' : title,
            'questionInfo' : questionInfo,
            'answerContent': answerContent
        }

        answerContentList.append(result)
        questionLinkQueue.task_done()
```

And this code, sometimes, may or may not, gives the following exception during runtime:

```
UnboundLocalError: local variable 'IndexError' referenced before assignment
```

The line number indicates the error occurs at the second `except IndexError:`

Thanks everyone for your suggestions, Would love to give the marks that you deserve, too bad I can only mark one as the correct answer...

python exception

edited Feb 21 '14 at 7:03

asked Feb 21 '14 at 6:37



Paul Leung  
127 ● 9

Typos, I hand typed it to striped some un-needed lines.. Edited already.. – Paul Leung Feb 21 '14 at 6:43

Related: [multiple exceptions in one line \(except block\)](#) – thefourtheye Feb 21 '14 at 6:50

### 3 Answers

I think the problem is this line:

```
except requests.exceptions.Timeout ,IndexError
```

This is equivalent to:

```
except requests.exceptions.Timeout as IndexError:
```

So, you're assigning `IndexError` to the exception caught by `requests.exceptions.Timeout`. Error can be reproduced by this code:

```
try:
    true
except NameError, IndexError:
    print IndexError
    #name 'true' is not defined
```

To catch multiple exceptions use a tuple:

```
except (requests.exceptions.Timeout, IndexError):
```

And `UnboundLocalError` is coming because `IndexError` is treated as a local variable by your function, so trying to access its value before actual definition will raise `UnboundLocalError` error.

```
>>> 'IndexError' in answerContentExtractor.func_code.co_varnames
True
```

So, if this line is not executed at runtime (`requests.exceptions.Timeout ,IndexError`) then the `IndexError` variable used below it will raise the `UnboundLocalError`. A sample code to reproduce the error:

```
def func():
    try:
        print
    except NameError, IndexError:
        pass
    try:
        [[]][1]
    except IndexError:
        pass
func()
#UnboundLocalError: Local variable 'IndexError' referenced before assignment
```

edited Feb 21 '14 at 7:02

answered Feb 21 '14 at 6:49



Ashwini Chaudhary  
123k ● 19 ● 173 ● 247

1 It solved the problem.. Thank you for explaining all the stuffs behind the scene.. I got a much better sense about the code other than just fixing the error.. Thanks again.. – [Paul Leung](#) Feb 21 '14 at 7:10

@PaulLeung Glad that helped. :) – [Ashwini Chaudhary](#) Feb 21 '14 at 7:13

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When you say

```
except requests.exceptions.Timeout ,IndexError:
```

Python will except `requests.exceptions.Timeout` error and the error object will be `IndexError`. It should have been something like this

```
except (requests.exceptions.Timeout ,IndexError) as e:
```

answered Feb 21 '14 at 6:49



thefourtheye  
109k ● 12 ● 139 ● 213

```
except requests.exceptions.Timeout ,IndexError:
```

means same as `except requests.exceptions.Timeout as IndexError`

You should use

```
except (requests.exceptions.Timeout, IndexError):
```

instead

answered Feb 21 '14 at 6:49



Kimvais  
17.2k ● 6 ● 60 ● 100

