

Projects in 2019-2021

A new unit test application


A sophisticated data parser


Demonstration

Unit test the data parser

Add subfolder to parser project

 unittest

▼  utc1

 utc1_setup.txt

Write unittest 1

Define:

- startup arguments
- settingsfile
- sample data
- expected outcome

```
#ut1
##inputargs
-t -p ./assignments
```

```
##files
/assignments/new/assignment_20000101120000.txt
parse ./data.txt ./wfcheck/settings.txt
```

```
/wfcheck/settings.txt
#
\##name
@root
...
```

```
/data.txt
1Title: inleiding
      Dit verhaal werd in 2019 geschreven.
<witregel>
2Title: beschrijving van de hoofdpersonen
      De inspecteur
      de verdachte
<witregel>
3Title: de plot
      Er is belangenverstrengeling in het bouwbedrijf
      Er wordt een complot gesmeed.
...
```

```
##correct_result_stdout
0
<witregel>
<witregel>
```

```
##comment
tekst zonder fouten
NB. exitmessage is een blanco regel
```

Write unittest variant

Small change in original unittest

=>

New unittest !

```
#ut1-d
##files
-+
//3Title: de plot
2Title: de plot

##correct_result_stdout
1
ERROR Discontinuity found at lines
                                4 - 8
                                8 - 12

/data.txt:@root

##comment
order_test
    het titelnummer klopt in deze test niet meer, we hebben twee keer 2Title:
```

Creating variants is too easy!

The Flask edit tool makes life even more easy

← → localhost:5000/home/edit?ut_name=ut1&ut_name=ut1-d
🔍 Search

Main	Overview	Edit	Run		
<div style="font-size: 0.8em;"> ut0 ut1 ut1-a ut1-b ut1-c ut1-d ut1-e ut1-f ut1-g ut1-h ut1-i ut1-j ut1-k ut1-l ut1-m ut1-n ut1-o ut1-p ut1-q ut1-r ut1-s ut1-t ut1-u ut1-v ut1-w ut1-x ut1-y ut1-z ut1-aa ut1-ab ut1-ac ut1-ad ut1-ae ut1-af ut2 ut2-a ut2-b ut3 ut3-a ut3-b ut4-d ut5 </div> <div style="margin-top: 5px;"> <input type="checkbox"/> Set <input checked="" type="checkbox"/> Move <input type="checkbox"/> Delete <input type="checkbox"/> Add <hr/> <input type="text" value="Filter"/> <input type="checkbox"/> FF off </div> <div style="border: 1px solid #ccc; padding: 2px; margin-top: 5px;"> ut1 ut1-d </div>				<div style="background-color: #e6f2ff; padding: 10px;"> <div style="text-align: right; font-weight: bold; font-size: 0.8em;">ut1</div> <div style="margin-bottom: 10px;"> inputargs <pre>-t -p ./assignments</pre> </div> <div> files <pre>/assignments/new/assignment_20000101120000.txt parse ./data.txt ./wfcheck/settings.txt /wfcheck/settings.txt # \##name @root \##titletypes @title ^([0-9]{1,})(Title:\s{1,3})[a-zA-Z0-9]{1}[-a-zA-Z0-9_\s]{1,})\$ @todo ^TODO\$ \##nontitletypes @wrongtitle ^([0-9]{1,})\s*(title TITLE Title)\s*(:){0,1}\s*,*\$ \##skip_everything_after @todo \##count @title,@todo arg1>0 COND NRALLLINES arg1>0 @wrongtitle arg1==0 \##uninterrupted_matches \##start_end_title starttitle @title,@todo \##unique @title 2 \##similarity @title 1 \##os</pre> </div> </div> <div style="background-color: #e6f2ff; padding: 10px; margin-top: 10px;"> <div style="text-align: right; font-weight: bold; font-size: 0.8em;">correct result</div> <pre>0 <witregel> <witregel></pre> </div>	<div style="background-color: #e6f2ff; padding: 10px;"> <div style="text-align: right; font-weight: bold; font-size: 0.8em;">ut1-d</div> <div style="margin-bottom: 10px;"> False_ </div> <div> <pre>--+ //3Title: de plot 2Title: de plot</pre> </div> </div> <div style="background-color: #e6f2ff; padding: 10px; margin-top: 10px;"> <pre>1 ERROR Discontinuity found at lines 4 - 8 8 - 12 /data.txt:@root</pre> </div>

Time to unittest!

```
ubuntu@ubuntu-VirtualBox:~$ python3 /home/ubuntu/utis/unittestester/unittestester.py utc1 python3 /home/ubuntu/utis/testwf/test_wellformedness.py -sp -ut ut1-a-ut1-d
INFO  Unittestester started

...

INFO  Parse setupfiles from unittestcollections: ['utc1']
INFO  Following unittests will be started: ['ut1-a', 'ut1-b', 'ut1-c', 'ut1-d']

...

INFO  Create unittest environments and run unittests
INFO  unittest ut1-a started with: /home/ubuntu/utis/testwf/test_wellformedness.py -t -p /home/ubuntu/utis/testwf/unittest/utc1/ut1-a/assignments
INFO  unittest ut1-b started with: /home/ubuntu/utis/testwf/test_wellformedness.py -t -p /home/ubuntu/utis/testwf/unittest/utc1/ut1-b/assignments
INFO  unittest ut1-c started with: /home/ubuntu/utis/testwf/test_wellformedness.py -t -p /home/ubuntu/utis/testwf/unittest/utc1/ut1-c/assignments
INFO  unittest ut1-d started with: /home/ubuntu/utis/testwf/test_wellformedness.py -t -p /home/ubuntu/utis/testwf/unittest/utc1/ut1-d/assignments

INFO  === Results for utc1 ===
INFO      Some unittests were not executed
INFO      All other unittests passed
```


What happened?

(1) test environments were build:



(2) For each environment =>

- Start the parser
- Capture the output
- Compare with expected result

Finally:

How the parser works

1. Identify titlelines in data with a regular expression

2. Perform tests:

- unique test
Are all titles unique?
- title order test
Check chapter numbers:
incorrect: 1, 2, 2, 4, ...

```
/wfcheck/settings.txt
#
##name
@root

##titletypes
@title ^([0-9]{1,})(Title:\s{1,3})([a-zA-Z0-9]{1}[-a-zA-Z0-9_]{1,})$
@todo ^TODOS$

##nontitletypes
@wrongtitle ^([0-9]{1,})\s*(title|TITLE|Title)\s*(:){0,1}\s*.*$

##skip_everything_after
@todo

##count
@title,@todo arg1>0 COND NRALLINES arg1>0
@wrongtitle arg1==0

##uninterrupted_matches

##start_end_title
starttitle @title,@todo

##unique
@title 2

##similarity
@title 1

##os
##title_order
test1
@title 0 ASC_CONTINUOUS intraise ^1$
```

Parser latest version

- Lots of new tests
- Data can also be converted and exported