

# 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!

# An edit tool makes life even more easy

The screenshot displays a web-based code editor interface. The browser address bar shows the URL: `localhost:5000/home/edit?ut_name=ut1&ut_name=ut1-d`. The interface includes a top navigation bar with tabs: **Main**, **Overview**, **Edit**, and **Run**. On the left side, there is a vertical list of file names (ut0 through ut5) and a 'Set' button with options: ☐ Move, ☐ Delete, ☐ Add. Below this is a 'Filter' section with ☐ FF off. The main editing area is divided into three sections: **inputargs**, **files**, and **stdout**. The **inputargs** section contains a text box with the command: `-t -p ./assignments`. The **files** section contains a text box with the following content: 

```
/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}){1}[-a-zA-Z0-9_]{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
```

 The **stdout** section contains a text box with the following content: 

```
0
<witregel>
<witregel>
```

 On the right side, there is a separate panel labeled **ut1-d** containing a text box with the following content: 

```
False_

--+
//3Title: de plot
2Title: de plot
```

 Below this panel, there is a text box with the following content: 

```
1
ERROR Discontinuity found at lines
4 - 8
8 - 12

/data.txt:@root
```

# 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

- Identify titlelines in data with a regular expression
- 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$
```