Verifying commenting conventions

Bachelor’s Thesis – First Presentation, 30/03/2021

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Motivation

- Style Guidelines cover comments
- Style Checkers check comments

...but how?
Style Guidelines

● Codification of best stylistic practices

● For comments: Cover both content and style
# Style Guideline differences

<table>
<thead>
<tr>
<th>PEP</th>
<th>Google</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use 4 spaces per indentation level.</td>
<td>Indent your code blocks with 4 spaces.</td>
</tr>
</tbody>
</table>
# Style Guideline differences

<table>
<thead>
<tr>
<th>PEP</th>
<th>Google</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unless the entire docstring fits on a line, place the closing quotes on a line by themselves.</td>
<td>-</td>
</tr>
</tbody>
</table>
## Style Guideline differences

<table>
<thead>
<tr>
<th>PEP</th>
<th>Google</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limit all lines to a maximum of 79 characters. For flowing long</td>
<td>Maximum line length is 80 characters.</td>
</tr>
<tr>
<td>blocks of text with fewer structural restrictions (docstrings or</td>
<td></td>
</tr>
<tr>
<td>comments), the line length should be limited to 72 characters.</td>
<td></td>
</tr>
</tbody>
</table>

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Style Checkers

Programs, that check code for consistent style
Style Checker Rules

Example (Pylint)

empty-docstring (C0112)
Used when a module, function, class or method has an empty docstring
(it would be too easy ;).

Rules are often toggle-able or configurable
Question 1

What parts of style guidelines do style checkers cover with regards to documentation comments?

Related: How do style checkers differ compared to each other?
Example (PEP)

The docstring is a phrase ending in a period.
Question 2

What style checkers are used in open-source projects and how are they configured for comments?
Pipeline

1. Q1: Select guidelines and style checkers
2. Q1: Create a rule mapping
3. Q2: Mine projects and see if they use style checkers
4. Q2: Look at config files and compare them to defaults
5. Document and interpret results
Summary

What parts of style guidelines do style checkers cover with regards to documentation comments?

Java
- Oracle/Sun
- Google

Python
- PEP
- Numpy
- Google

Java

Python
- PMD
- Checkstyle

Java
- Pylint
- pydocstyle

Python
- Flake8
- Black

What style checkers are used and how are they configured for comments?