Analysis results

This file contains analytical summary for given repository. It consists of following sections:

- **Peak contribution times** - plots and tables showing relation between number of commits and time of a day / day of a week
- **Contributors activity and productivity** - statistics allowing to assess the activity and productivity of contributors. The top *n* number might be changed in the config/reports_config.py file. List of tables:
    - Table showing top *n* contributors in terms of number of commits
    - Table showing top *n* contributors in terms of number of insertions
    - Table showing top *n* contributors in terms of insertions / deletions ratio
    - Tables showing top *n* contributors in terms of number of commits / insertions per day of activity
- **Messages patterns** - the most popular patterns in commit messages, both in tabular form and as ' wordcloud' plots
- **Periods of activity before merge** - relation between number of commits and time to nearest merge
- **Insertions / deletions stats** - distributions of insertions / deletions per commit in the form of histogram, plus some basic stats, such as median and avg value

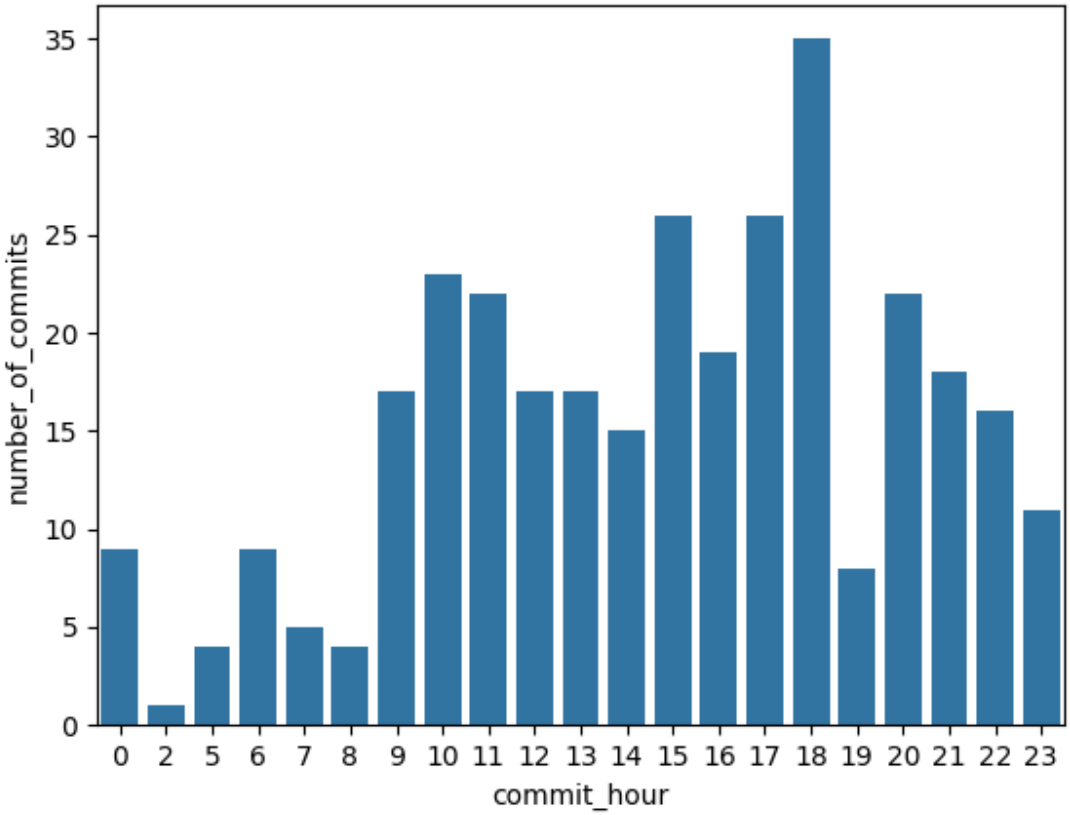
1. Peak contribution times

Table below shows the sum of commits per time of a day:

commit_hour	number_of_commits
0	9
2	1
5	4
6	9
7	5
8	4
9	17
10	23
11	22
12	17
13	17
14	15
15	26
16	19
17	26
18	35
19	8
20	22
21	18
22	16
23	11

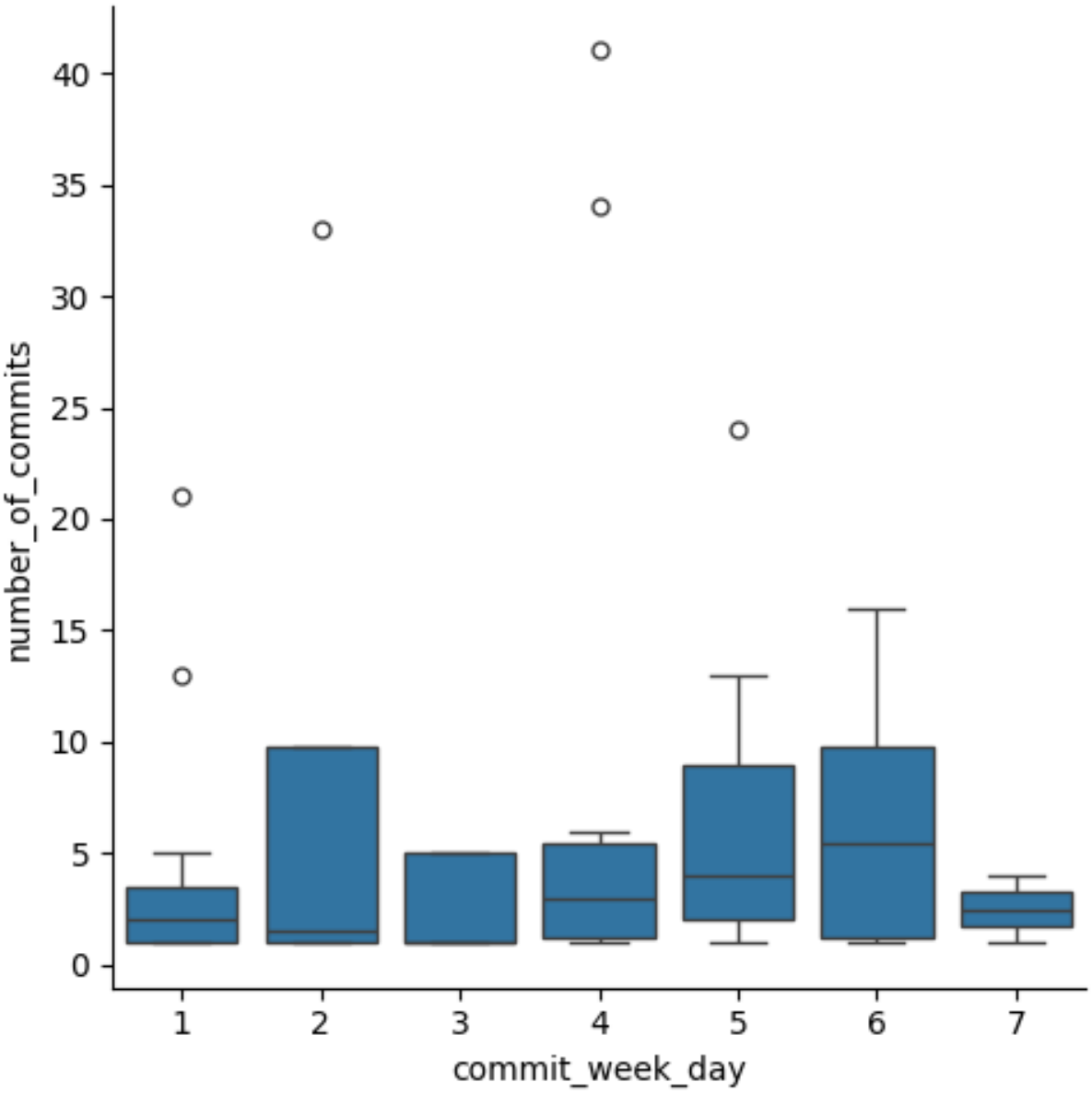
Commits time of a day table

The visualization of table above:



Commits time of day plot

Below the distribution of number of commits per weekday is shown the form of boxplot:



Commits day of week plot

2. Contributors activity

Table below shows top 10 most active contributors in terms of number of commits:

author_name	number_of_commits
Toni	283
dependabot[bot]	22
Toni G	16
Boje Deforce	1
Nicholas Livingstone	1
Thomas Walther	1

Top contributors number of commits

Next table shows the most active contributors in terms of number of insertions:

author_name	number_of_insertions
Toni	131507
Toni G	155
dependabot[bot]	29
Nicholas Livingstone	7
Boje Deforce	4
Thomas Walther	2

Top contributors number of insertions

Table showing top contributors in terms of insertions / deletions ratio:

author_name	insertions_deletions_ratio
Toni	10.0
Toni G	1.2

Insertions deletions ratio

Table showing top contributors in terms of number of commits per day of activity. This measure can be especially helpful for assessing the work of new developers, who joined the project quite recently:

author_name	commits_per_day
Boje Deforce	1.0
Nicholas Livingstone	1.0
Thomas Walther	1.0
Toni	0.3
dependabot[bot]	0.1
Toni G	0.0

Commits number per day

Similar table showing number of insertions per day:

author_name	insertions_per_day
Toni	118.7
Nicholas Livingstone	7.0
Boje Deforce	4.0
Thomas Walther	2.0
Toni G	0.1
dependabot[bot]	0.1

Insertions number per day

3. Messages patterns

In this sections we shows top words from commit messages both in raw version (without any transformation) and after process of stemming (excluding plural suffix, etc.)

3.1 Raw words

Table showing top raw words in the commit messages:

raw_word	raw_word_freq
bump	69
version	48
from	23
docs	19
before	16
last	15
bumpversion	15
pypacibuildwheel	12
test	11
update	9
message	7
plot	7
empty	7
ndynamictimewarpingdtwpythonissues	5
pypaghactionpypipublish	5

Top raw words table

Word cloud of raw words:

Word cloud raw words

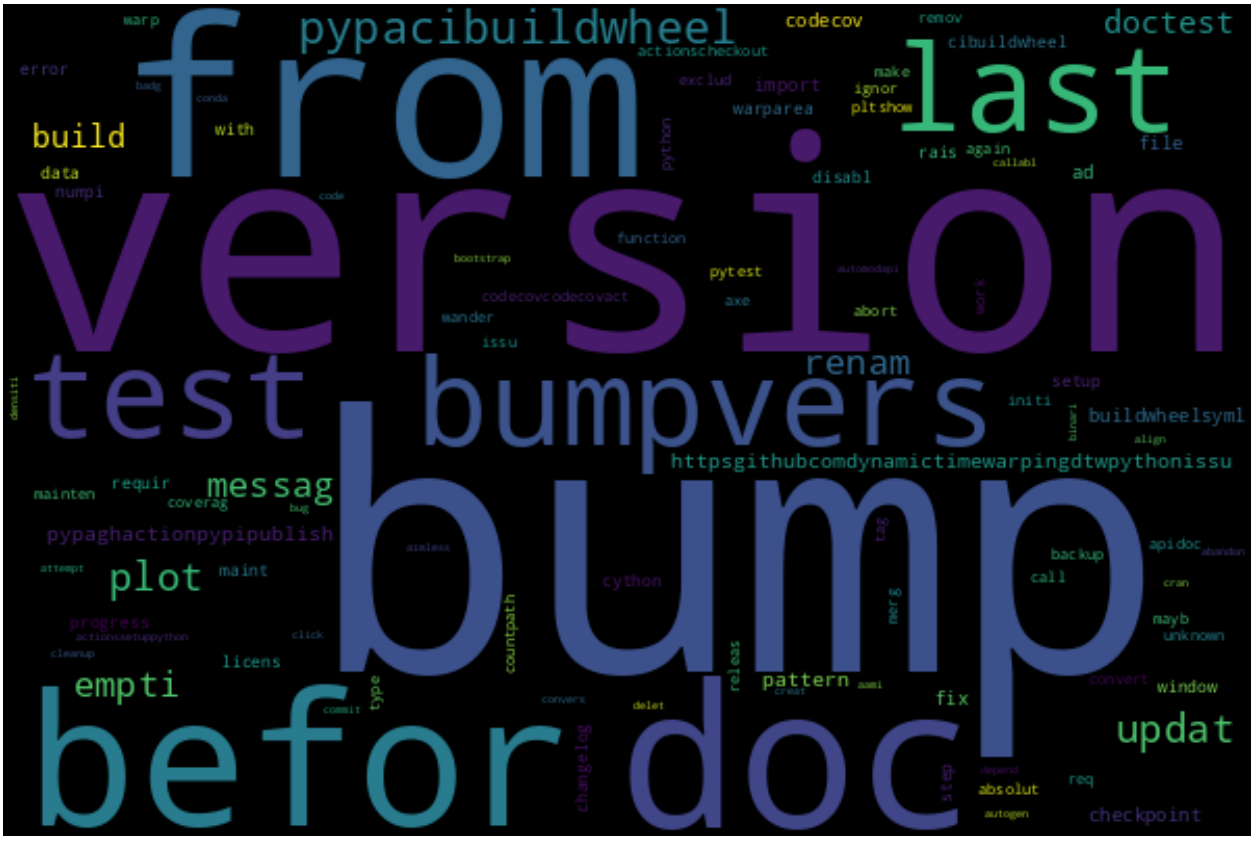
3.2 words after stemming

Table showing top stemmed words in the commit messages:

stemmed_word	stemmed_word_freq
bump	69
version	48
from	23
doc	19
befor	16
bumpvers	15
test	15
last	15
pypacibuildwheel	12
updat	9
plot	9
messag	7
empti	7
renam	7
pypaghactionpypipublish	5

Top stemmed words table

Word cloud of raw words:



Word cloud stemmed words

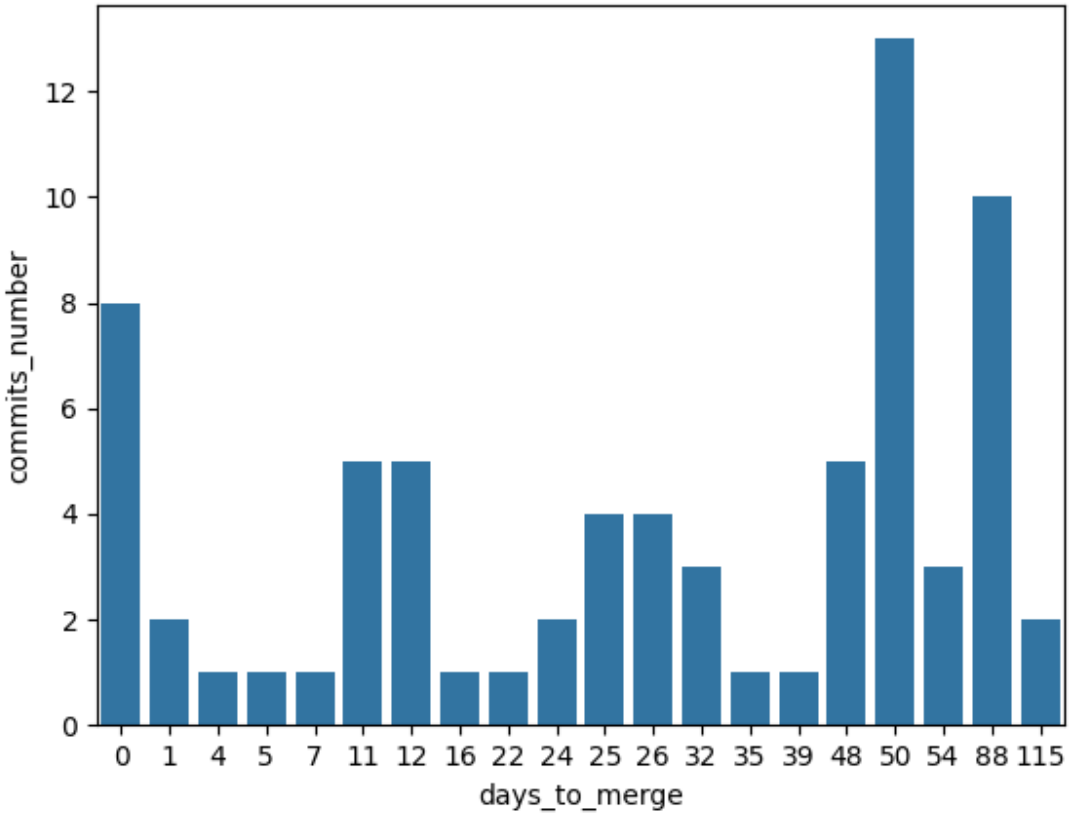
4. Periods of activity before merge

Table showing relation between number of commits and time to nearest merge:

days_to_merge	commits_number
0	8
1	2
4	1
5	1
7	1
11	5
12	5
16	1
22	1
24	2
25	4
26	4
32	3
35	1
39	1
48	5
50	13
54	3
88	10
115	2

Time to merge table

The same relation in the form of plot:



Time to merge plot

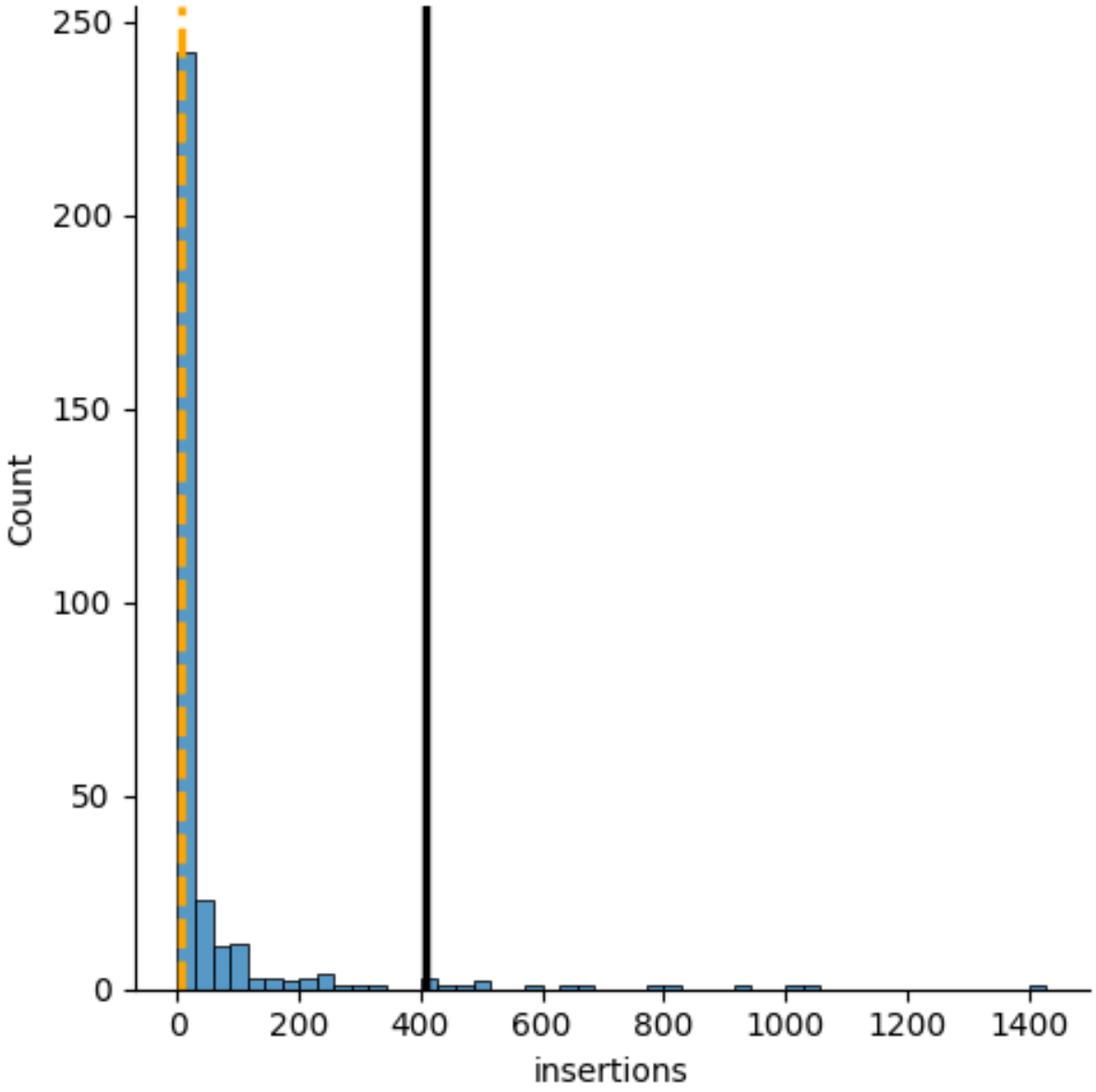
5. Insertions / deletions distributions

Table below shows the base statistical characteristics of insertions, such as mean value, standard deviation, max, min, etc:

measure	insertions
count	324.0
mean	406.49
std	4999.65
min	0.0
25%	3.0
50%	6.0
75%	30.5
max	86232.0

Insertions table

Plot below show the distributions of insertions per commit in the form of histogram. Average value is shown as black line and median is represented by orange dashed line:



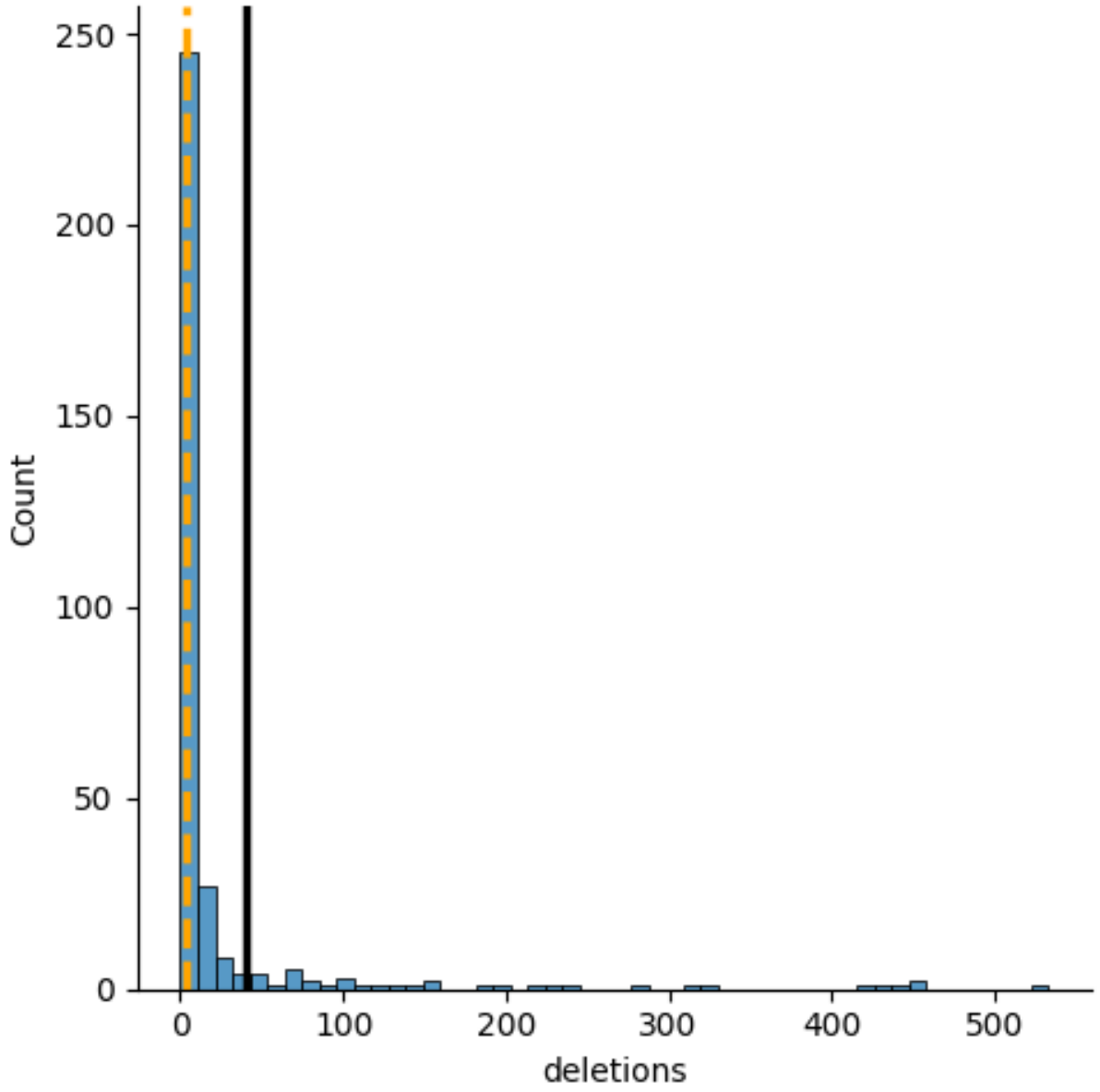
Insertions histogram

Table below shows the base statistical characteristics of insertions, such as mean value, standard deviation, max, min, etc:

measure	deletions
count	324.0
mean	40.96
std	192.71
min	0.0
25%	1.0
50%	3.0
75%	9.25
max	2932.0

Deletions table

Histogram showing deletions distribuiton:



Deletions histogram

Summary

Hope this document was helpful. For more information please take a look at the dashboard.