

## SUMMARY - WORKLOAD DISTRIBUTION

	GitHub Repository	Information	Insights
1.	scrapy/scrapy	Throughout project history: <ul style="list-style-type: none"> <li>Number of reviewers: 242</li> <li>Number of reviews: 6065</li> <li>Number of committers: 747</li> <li>Number of commits: 14114</li> </ul>	<ul style="list-style-type: none"> <li>Around 75% of total reviews count throughout the project history was reviewed by 4 out of 242 reviewers (about 1.7%).</li> <li>Around 59% of total commits count was committed by 15 committers out of 747 (about 2% only).</li> </ul>
		2024: <ul style="list-style-type: none"> <li>Number of reviewers: 28</li> <li>Number of reviews: 496</li> <li>Number of committers: 65</li> <li>Number of commits: 773</li> </ul>	<ul style="list-style-type: none"> <li>Around 79% of review workload was conducted by two reviewers only out of 28 in 2024 (about 7.1%).</li> <li>Around 62% of commit workload was conducted by three committers only out of 28 in 2024 (about 10.7%).</li> </ul>
2.	fastapi/fastapi	Throughout project history: <ul style="list-style-type: none"> <li>Number of reviewers: 784</li> <li>Number of reviews: 5733</li> <li>Number of committers: 849</li> <li>Number of commits: 15715</li> </ul>	<ul style="list-style-type: none"> <li>The top 20 reviewer chart describes that the workload distribution of reviews was distributed well in this project, since the portion of review between reviewers differ in a small number. Around 33% of reviews were conducted by 2.5% of all reviewers.</li> <li>About 72% of all commit workload was done by 1.06% only of all committers.</li> </ul>
		2024: <ul style="list-style-type: none"> <li>Number of reviewers: 176</li> <li>Number of reviews: 1571</li> <li>Number of committers: 213</li> <li>Number of commits: 3323</li> </ul>	<ul style="list-style-type: none"> <li>Around 54% of review workload was conducted by about 7.4% reviewers in 2024.</li> <li>Around 58% of commit workload was conducted by two committers only out of 213.</li> </ul>
3.	psf/requests	Throughout project history: <ul style="list-style-type: none"> <li>Number of reviewers: 159</li> <li>Number of reviews: 1553</li> </ul>	<ul style="list-style-type: none"> <li>Around 72% of review workload was conducted by 4 reviewers only out of 1553 (about 0.2%). So that, the</li> </ul>

		<ul style="list-style-type: none"> <li>Number of committers: 900</li> <li>Number of commits: 5720</li> </ul>	<p>review workload was not distributed evenly among reviewers.</p> <ul style="list-style-type: none"> <li>Around 49% of commits happened in this project was conducted by 5 committers only (around 0.5%).</li> </ul>
		<p>2024:</p> <ul style="list-style-type: none"> <li>Number of reviewers: 14</li> <li>Number of reviews: 102</li> <li>Number of committers: 31</li> <li>Number of commits: 119</li> </ul>	<ul style="list-style-type: none"> <li>Around 81% of review jobs was done by about 21% of reviewers in 2024.</li> <li>Around 50% of commit jobs was done by about 6% of committers in 2024.</li> </ul>
4.	pallets/flask	<p>Throughout project history:</p> <ul style="list-style-type: none"> <li>Number of reviewers: 134</li> <li>Number of reviews: 813</li> <li>Number of committers: 836</li> <li>Number of commits: 6952</li> </ul>	<ul style="list-style-type: none"> <li>Around 60% of review works were done by 7 reviewers out of 134 in total (about 5.2%).</li> <li>Around 58% of all commits were committed by 3 committers out of 836 in total (0.35%).</li> </ul>
		<p>2024:</p> <ul style="list-style-type: none"> <li>Number of reviewers: 6</li> <li>Number of reviews: 16</li> <li>Number of committers: 27</li> <li>Number of commits: 313</li> </ul>	<ul style="list-style-type: none"> <li>Around 81% of reviews workload was done by about 50% of reviewers in 2024.</li> <li>Around 82% of commits happened in this project was done by about 11% of committers in 2024.</li> </ul>
5.	celery/celery	<p>Throughout project history:</p> <ul style="list-style-type: none"> <li>Number of reviewers: 250</li> <li>Number of reviews: 3416</li> <li>Number of committers: 1021</li> <li>Number of commits: 12028</li> </ul>	<ul style="list-style-type: none"> <li>Almost 56% of review jobs throughout this project was conducted by one reviewer only.</li> <li>Around 51% of all commits were committed by 3 committers out of 1021 in total.</li> </ul>
		<p>2024:</p> <ul style="list-style-type: none"> <li>Number of reviewers: 30</li> <li>Number of reviews: 381</li> <li>Number of committers: 54</li> </ul>	<ul style="list-style-type: none"> <li>Around 83% of reviews workload was done by about 6.7% of reviewers in 2024.</li> <li>Around 78% of commits happened in this project was done by about 5.6% of committers in 2024.</li> </ul>

		<ul style="list-style-type: none"> <li>▪ Number of commits: 789</li> </ul>	
6.	python-pillow/Pillow	Throughout project history: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 155</li> <li>▪ Number of reviews: 4514</li> <li>▪ Number of committers: 407</li> <li>▪ Number of commits: 14138</li> </ul>	<ul style="list-style-type: none"> <li>• Around 83% of review works were done by about 3.2% of all reviewers.</li> <li>• Around 81% of all commits happened in this project was done by about 1.4% of all committers in this project.</li> </ul>
		2024: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 35</li> <li>▪ Number of reviews: 891</li> <li>▪ Number of committers: 40</li> <li>▪ Number of commits: 1770</li> </ul>	<ul style="list-style-type: none"> <li>▪ Around 81% of reviews work was done by 3 reviewers only (about 8.6% of all reviewers) in 2024.</li> <li>▪ Around 80% of commits happened in 2024 was conducted by 17.5% of all committers in 2024. It shows that the dominance of committers is lower than the dominance of reviewers.</li> </ul>
7.	python-poetry/poetry	Throughout project history: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 424</li> <li>▪ Number of reviews: 5700</li> <li>▪ Number of committers: 641</li> <li>▪ Number of commits: 8384</li> </ul>	<ul style="list-style-type: none"> <li>• Around 73% of review workload was conducted by 2.1% of all reviewers.</li> <li>• Around 63% of commits happened in this project was done by about 1.1% of all committers.</li> </ul>
		2024: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 47</li> <li>▪ Number of reviews: 819</li> <li>▪ Number of committers: 43</li> <li>▪ Number of commits: 850</li> </ul>	<ul style="list-style-type: none"> <li>• Around 75% of review jobs was done by about 6.4% of all reviewers in 2024.</li> <li>• Around 75% of commits happened in 2024 was done by about 11.6% of all committers in 2024.</li> </ul>
8.	psf/black	Throughout project history: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 241</li> <li>▪ Number of reviews: 337</li> <li>▪ Number of committers: 403</li> <li>▪ Number of commits: 5890</li> </ul>	<ul style="list-style-type: none"> <li>• Around 72% of all reviews were done by about 3% of all reviewers throughout this project.</li> <li>• Around 63% of all commits were done by about 2.5% of all committers.</li> </ul>
		2024: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 31</li> </ul>	<ul style="list-style-type: none"> <li>• Around 75% of review works were done by about 9.7% of all reviewers in 2024.</li> </ul>

		<ul style="list-style-type: none"> <li>▪ Number of reviews: 261</li> <li>▪ Number of committers: 46</li> <li>▪ Number of commits: 609</li> </ul>	<ul style="list-style-type: none"> <li>• Around 76% of commits were done by about 15% of all committers.</li> </ul>
9.	pydantic/pydantic	Throughout project history: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 402</li> <li>▪ Number of reviews: 9814</li> <li>▪ Number of committers: 613</li> <li>▪ Number of commits: 13903</li> </ul>	<ul style="list-style-type: none"> <li>• Around 75% of all reviews were done by about 2% of all reviewers in this project.</li> <li>• Around 69% of all commits were committed by about only 1.5% of all committers in this project.</li> </ul>
		2024: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 87</li> <li>▪ Number of reviews: 2388</li> <li>▪ Number of committers: 159</li> <li>▪ Number of commits: 3311</li> </ul>	<ul style="list-style-type: none"> <li>• Around 77% of all reviews were done by about 5.7% of all reviewers in 2024.</li> <li>• Around 62% of all commits happened in 2024 were done by 2.5% of all committers in 2024.</li> </ul>
10.	encode/django-rest-framework	Throughout project history: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 292</li> <li>▪ Number of reviews: 2691</li> <li>▪ Number of committers: 1468</li> <li>▪ Number of commits: 11815</li> </ul>	<ul style="list-style-type: none"> <li>• Around 66% of all reviews were done by about 1.7% only of all reviewers in this project.</li> <li>• Around 50% of all commits happened in this project were done by only 0.5% of all committers.</li> </ul>
		2024: <ul style="list-style-type: none"> <li>▪ Number of reviewers: 33</li> <li>▪ Number of reviews: 217</li> <li>▪ Number of committers: 45</li> <li>▪ Number of commits: 289</li> </ul>	<ul style="list-style-type: none"> <li>• Around 71% of all reviews were done by about 21% of all reviewers in 2024.</li> <li>• Around 70% of all commits were done by about 11% of all committers in 2024.</li> </ul>

# FINAL CONCLUSION

Based on all of projects' analysis, there are some conclusions can be made:

- Most of projects show that there were only few reviewers and committers who had dominant jobs in reviewing and committing codes.
- There was a dominance workload by 2-3 usernames only in both reviews and commits work throughout the project history.
- Overall, the dominance was illustrated by more than around 50% of workload was done by less than about 2% of all the reviewers or all the committers.
- In project celery/celery, there was a reviewer who had workload of reviewing more than 50%. Thus, this project reviews workload was not conducted evenly.
- Only in fastapi/fastapi project, the reviews workload could be distributed well among reviewers. While in commit work, there was a dominance too in around 2-3 committers.
- For project pallets/flask, python-pillow/pillow, and psf/black, there were some usernames who had review works in a significant number making more the workload was distributed well compared to other projects. While in commit works, there was project psf/black only which illustrated a well distribution workload among committers throughout the project history.
- Based on top 20 usernames of review and commit, mostly there were a few reviewers who committed codes too and there were a few committers who became a reviewer too. Thus, it describes that a committer is not always a reviewer and vice versa.
- Some projects showed that there were committers who became a reviewer had a significant number of reviewing and there were reviewers who committed codes had a high number of committing too. Those projects including scrapy/scrapy, python-poetry/poetry, and pydantic/pydantic.
- In 2024, most of projects show that there were only few reviewers and committers who had dominant jobs in reviewing and committing codes.
- For project fastapi/fastapi, psf/requests, and pallets/flask showed that the distribution of reviews workload in 2024 was distributed well among all reviewers in 2024. While, well distributed of commits workload in 2024 was illustrated in project psf/requests, python-pillow/pillow, and psf/black.