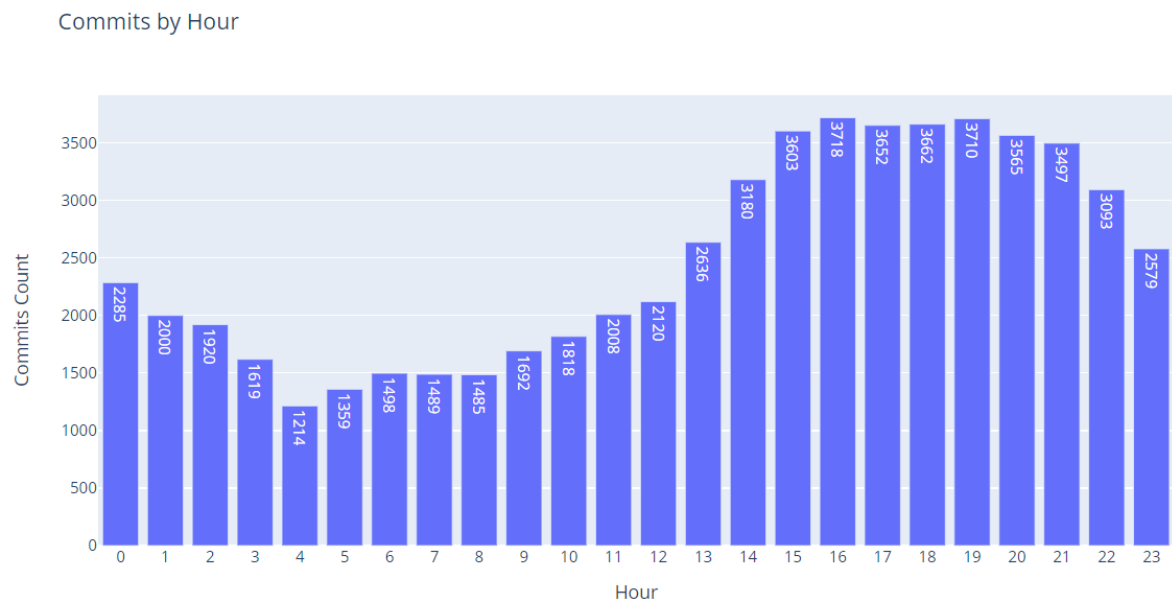


DATA ANALYSIS REPORT- FINDING MOST ACTIVELY MODIFIED MODULES OF OPENSTACK NOVA PROJECT

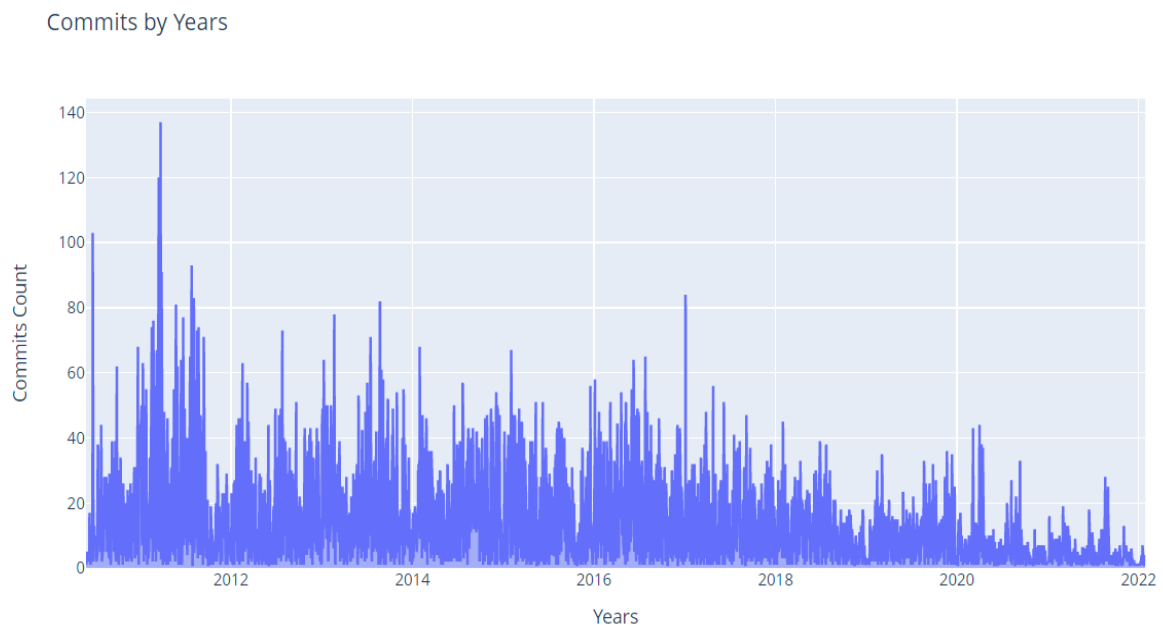
(<https://github.com/openstack/nova>)

Tools Used: Python, Anaconda Jupyter Notebook, Git, PyDriller

Data was retrieved using GitHub API by hitting the endpoint ‘/repos/openstack/nova/commits’. It is obvious from the graph below, that more commits have been made to the repository from 3 pm to 9 pm.

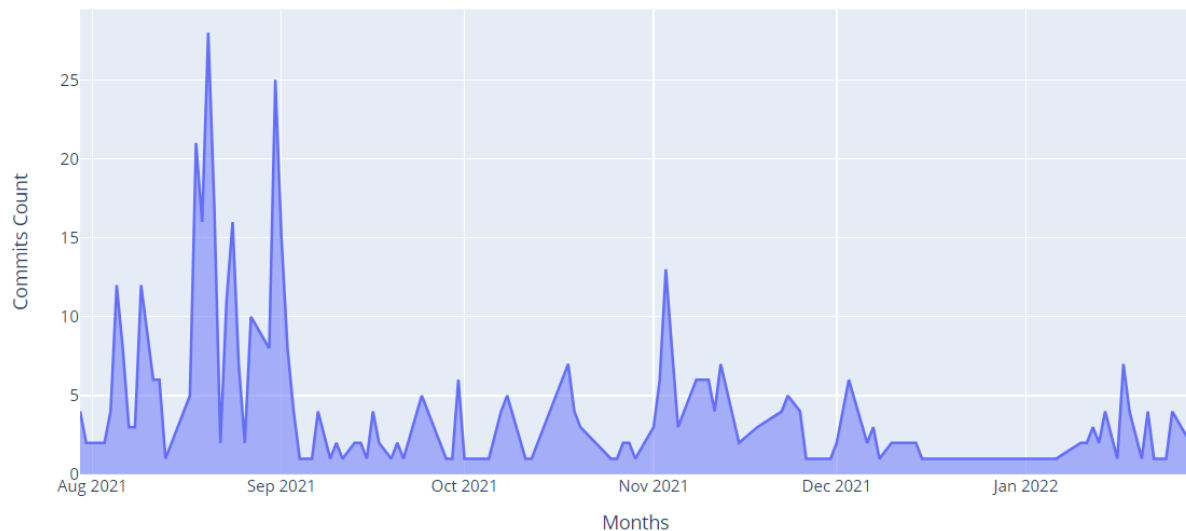


A large number of commits were made around 2011 and there has been a gradual descent in the commits made throughout the years with small spikes in the year of 2012



During the past six months we can view that the commits were predominantly made in the end of August,2021. Later only few commits were done to the repository with number of commits less than 15.

Commits by Last Six months



Lines Added and Removed for Last 6 Months aggregated sub-folders wise using PyDriller

Lines Added in Sub-directories Last 6 Months

```
api-guide\source : 82
api-ref\source : 119
doc : 2941
etc\nova : 1
gate : 199
nova : 28030
releasenotes : 428
tools : 9
devstack : 0
playbooks : 0
roles : 0
In Root Directory : 204
```

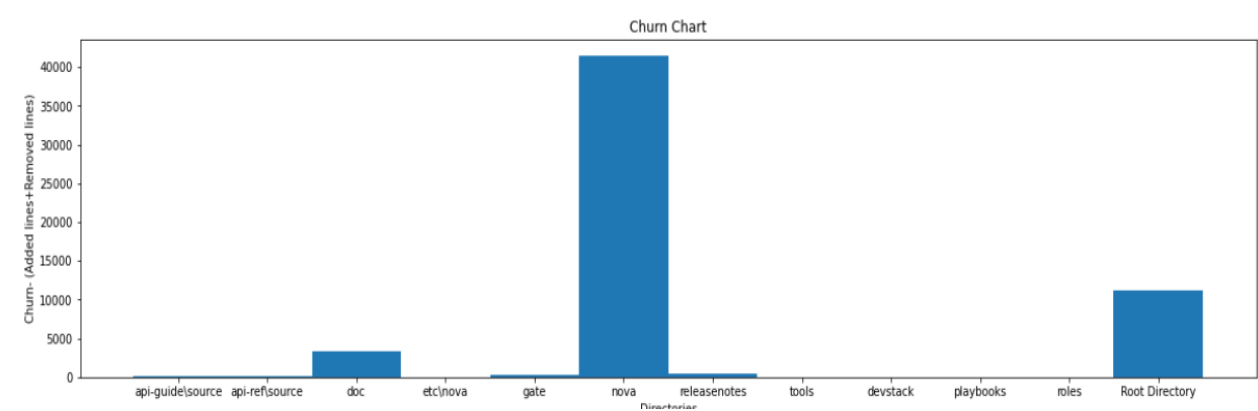
Lines Removed in Sub-directories Last 6 Months

```
api-guide\source : 18
api-ref\source : 50
doc : 429
etc\nova : 2
gate : 97
nova : 13448
releasenotes : 9
tools : 4
devstack : 0
playbooks : 0
roles : 0
In Root Directory : 6793
```

Number of commits to sub-folders under Openstack Nova repository

```
api-guide\source : 6
api-ref\source : 9
doc : 82
etc\nova : 3
gate : 15
nova : 1109
releasenotes : 38
tools : 5
devstack : 0
playbooks : 0
roles : 0
Root Directory : 0
In Root Directory : 26
```

Based on the information retrieved using the above, Churn was calculated directory-wise. ‘Nova’ folder is identified to be most highly active folder as far as commits are concerned followed by the root directory.



Around 1700 commits have been made by Vishvananda to Open stack Nova repository

