The studied period for this report is 10th of May to 10th of November 2021, using Python as a scripting language and Pydriller and Pandas as libraries, the commits and churn that occurred during this period is presented in two bar charts presented below. Please note that the notebook that contains the script of this report can be found [here](#).

Number of commits that occurred during the studied period:
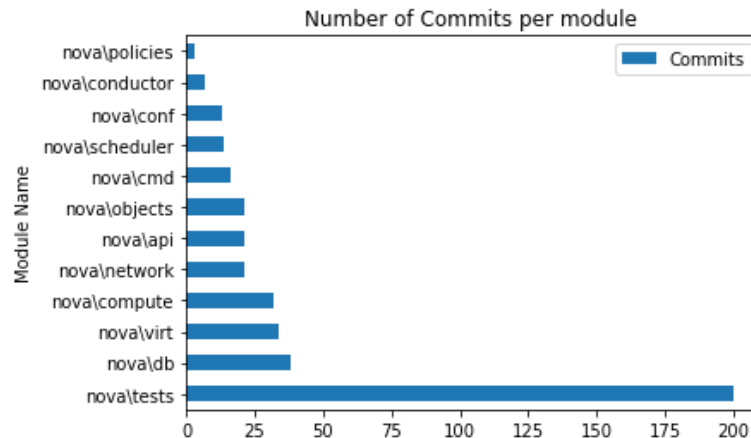
As indicated in the chart above that presents the top 12 active modules based on number of commits, the most active module by a considerable margin is the tests module that had 200 unique commits during the studied period and this represents the fact that test was the module that developers had the most time spent on. All the other modules have less than 40 commits in the studied period. This may be due to the fact that during the maintenance, testing is most required aspect of the development.

Number of churns that occurred during the studied period:
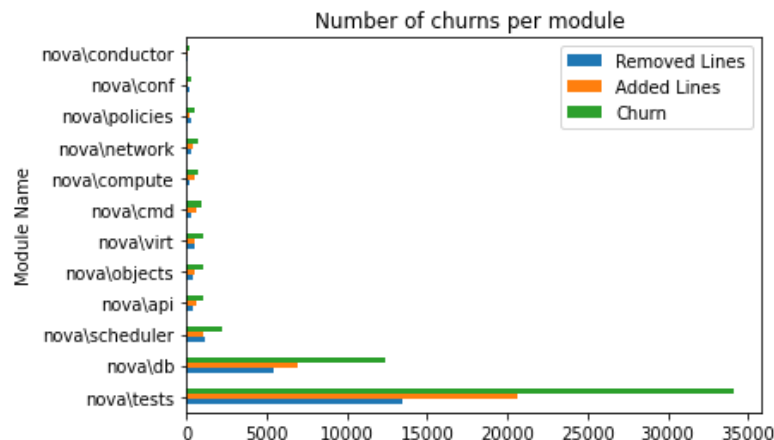
as presented in the chart above that shows the top 12 active modules based on number of churns. Here, churn is defined as the aggregate of added and removed lines. Similar to number of commits, tests module has the greatest number of churns in nova with close to 35000 thousand modifications in the lines of the codes and over half of all churns in the nova project. db module is in the second position with over 12000 churns and all the other modules have less than 2500 modifications in their codes. This emphasizes on the fact that tests module is the most active module in OpenStack Nova.