In comparing ways to predict the number of issues created or closed:

LSTM (Long Short-Term Memory): It's quick and focuses on the latest data trends. Think of it as staying updated with what's happening right now.

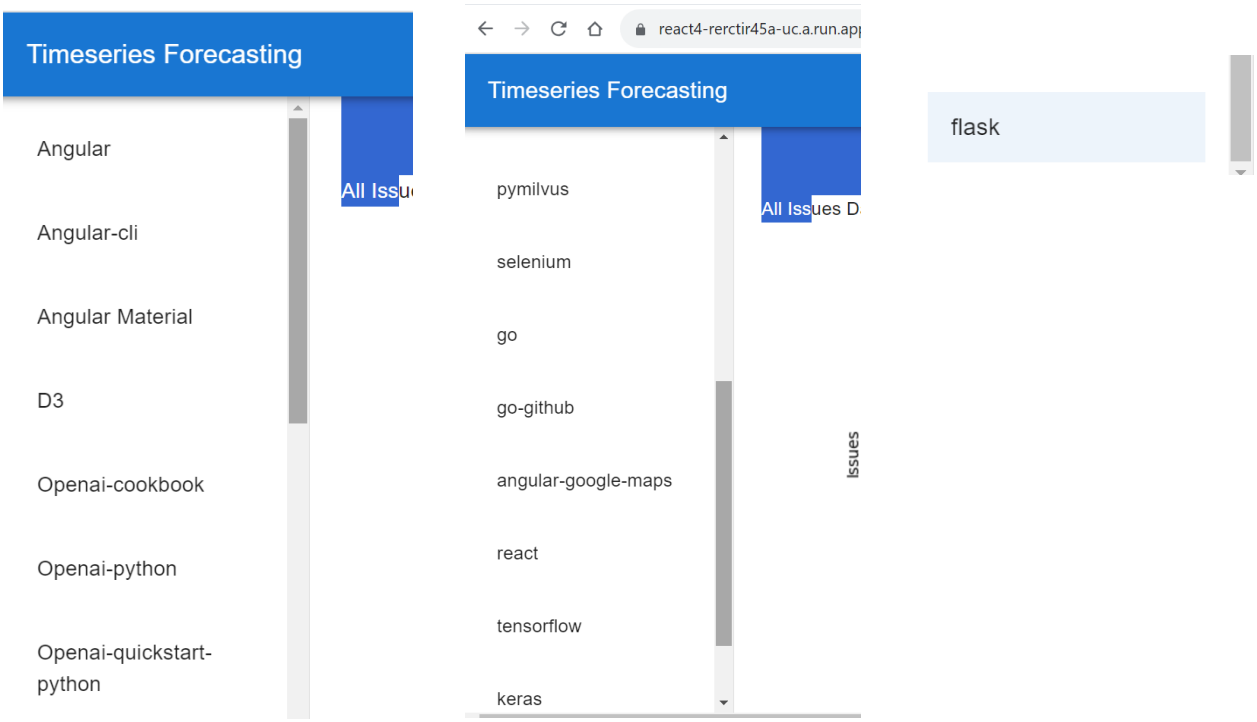
StatsModel: It's more traditional and checks its results against established statistical methods. This can take a bit more time but ensures reliability.

Prophet: It looks at the entire history of data. It's thorough but might take more time compared to LSTM.

In the end, after considering all these methods, the conclusion is that LSTM comes out on top—it's the most effective for predicting the number of issues. StatsModel is a decent choice, a bit slower but reliable. Prophet is okay, but it's not as fast as LSTM.

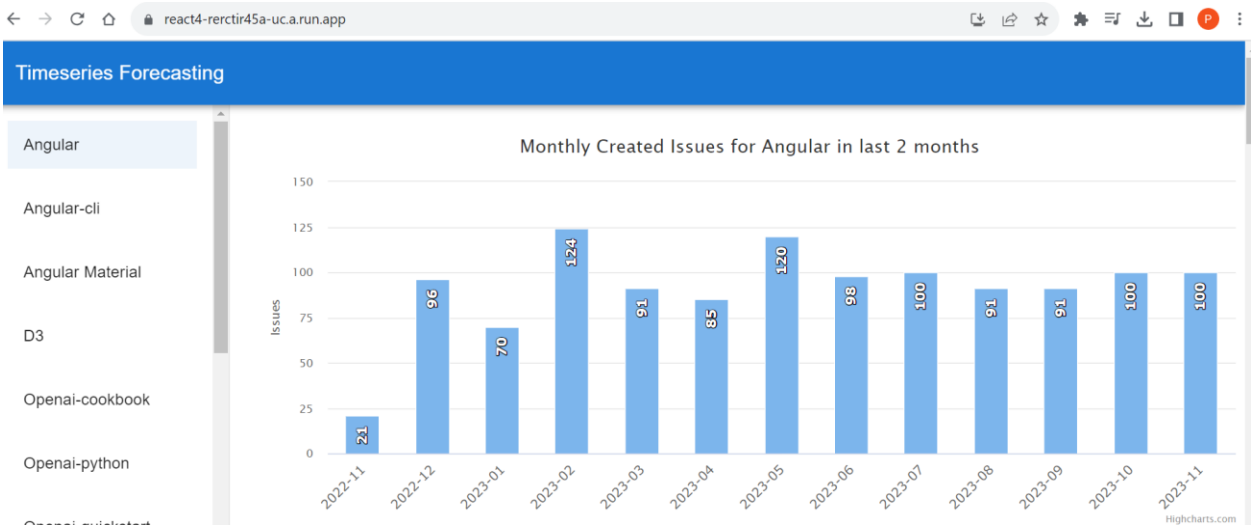
So, the ranking would be: LSTM is the best, followed by StatsModel, and then Prophet. That's the summary of our analysis.

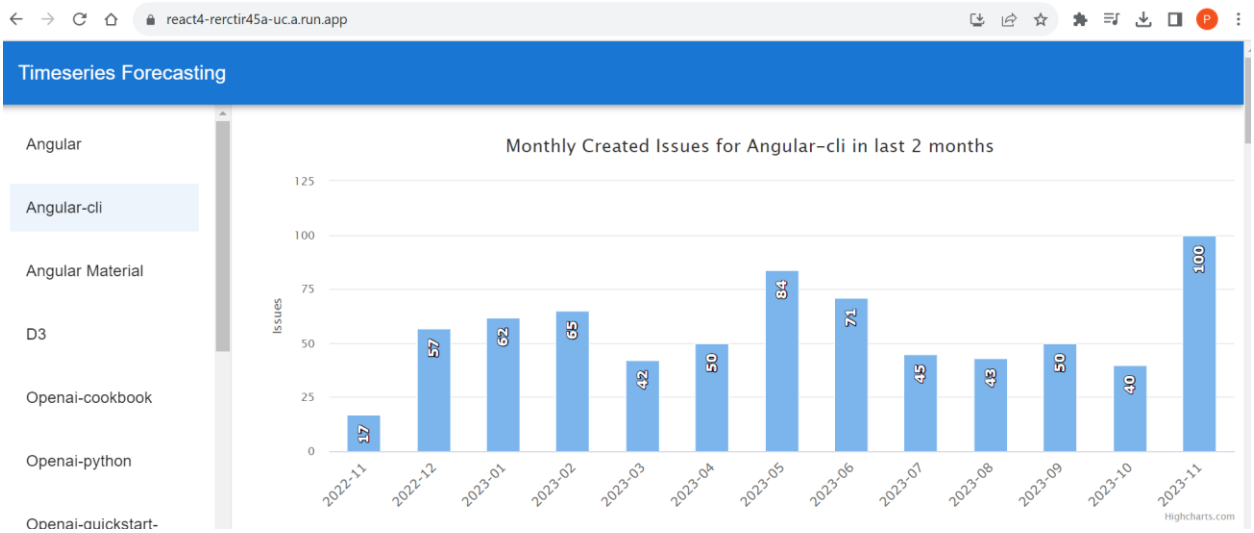
1.

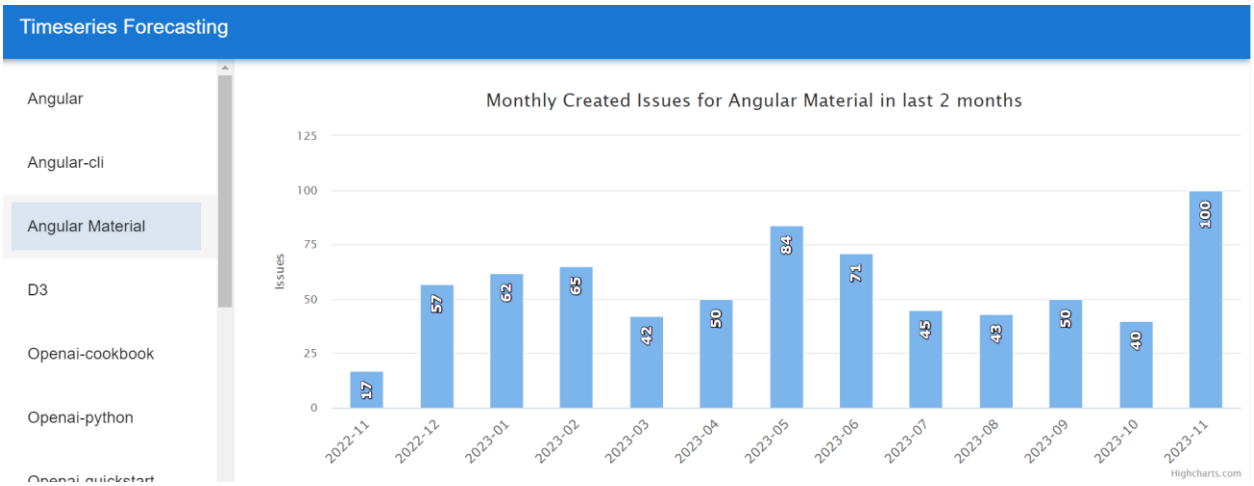


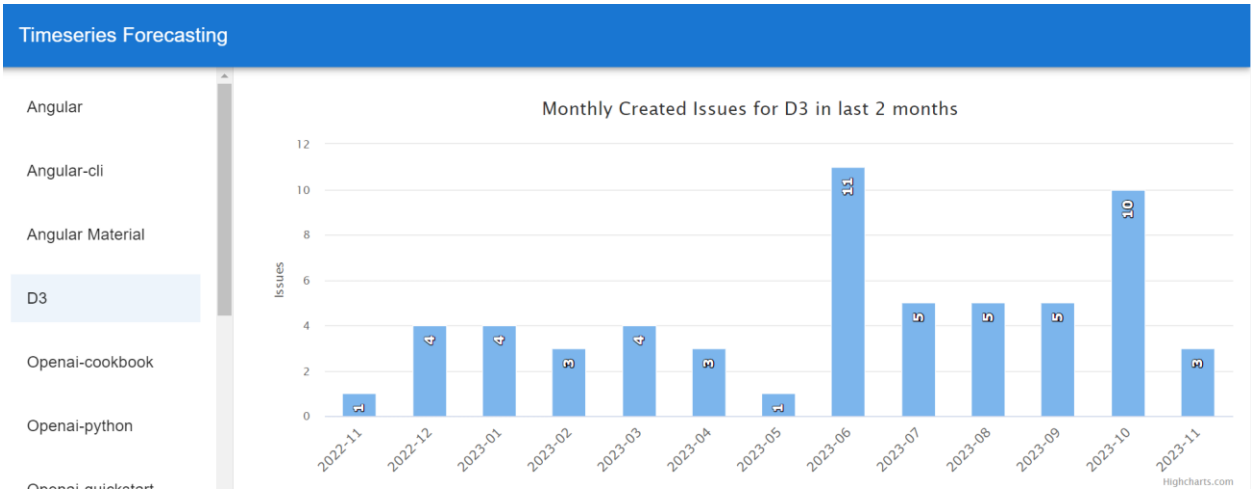
5. Line Chart for every repo

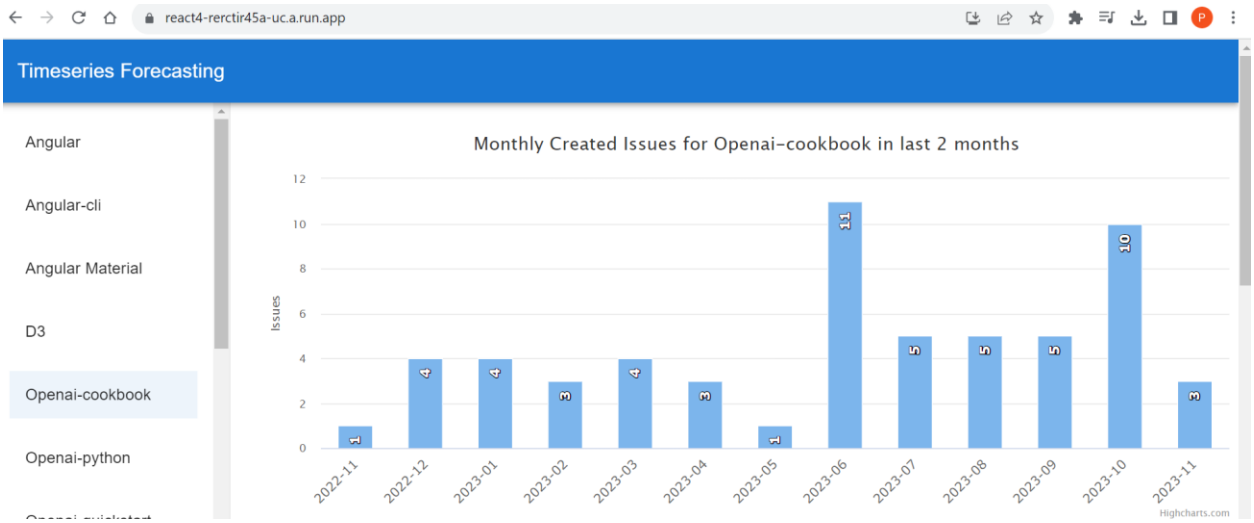
2. A Bar Chart to plot the issues created for every month for every Repo








Timeseries Forecasting
Angular
Angular-cli
Angular Material
D3
Openai-cookbook
Openai-python
Monthly Created Issues for D3 in last 2 months
Issues
2022-11
2022-12
2023-01
2023-02
2023-03
2023-04
2023-05
2023-06
2023-07
2023-08
2023-09
2023-10
2023-11
Highcharts.com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Timeseries Forecasting
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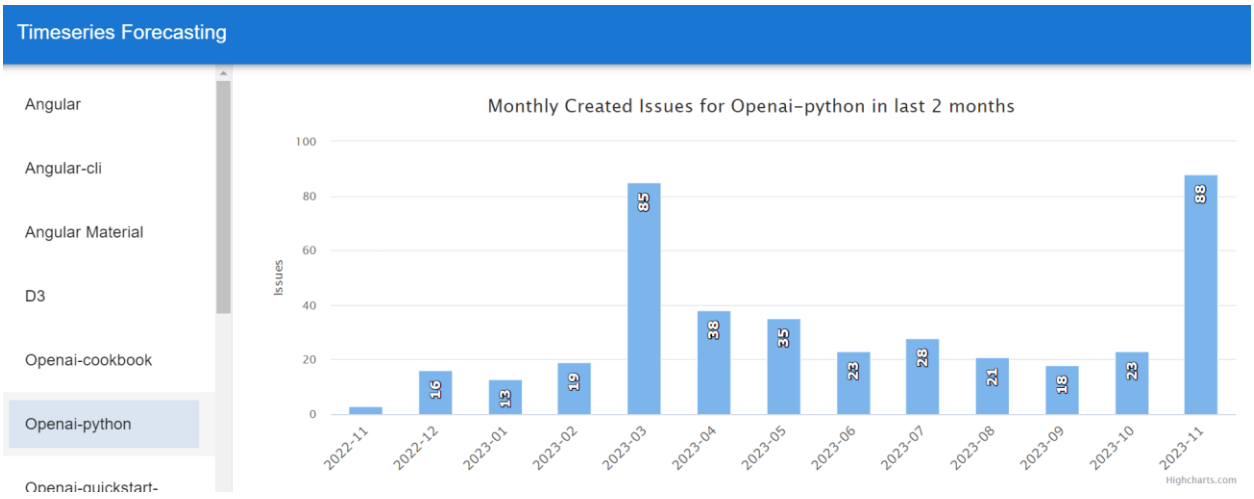
Angular Material
D3
Openai-cookbook
Openai-python
Monthly Created Issues for Openai-cookbook in last 2 months
Issues
Highcharts.com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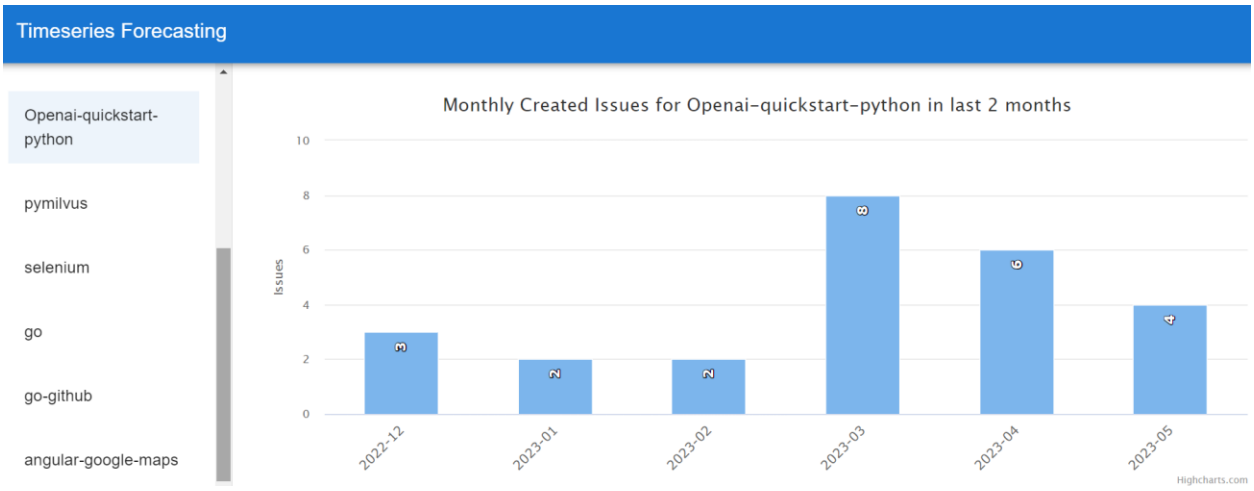
Angular Material
D3
Openai-cookbook
Openai-python
Monthly Created Issues for Openai-python in last 2 months
Issues
Highcharts.com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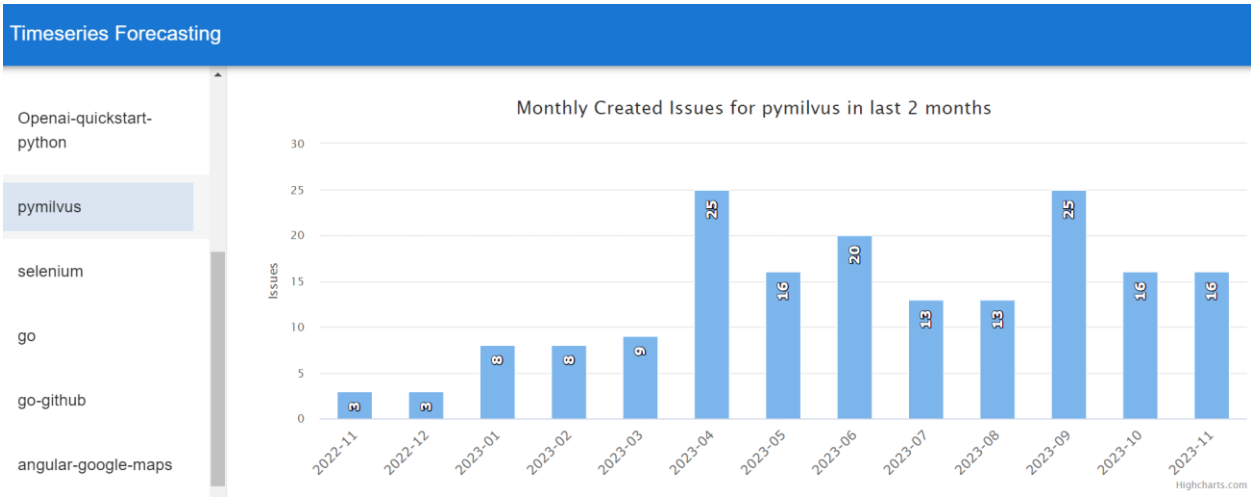
pymilvus
selenium
go
go-github
angular-google-maps
Monthly Created Issues for Openai-quickstart-python in last 2 months
Issues
2022-12
2023-01
2023-02
2023-03
2023-04
2023-05
Highcharts.com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pymilvus
selenium
go
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angular-google-maps
Monthly Created Issues for pymilvus in last 2 months
Issues
2022-11
2022-12
2023-01
2023-02
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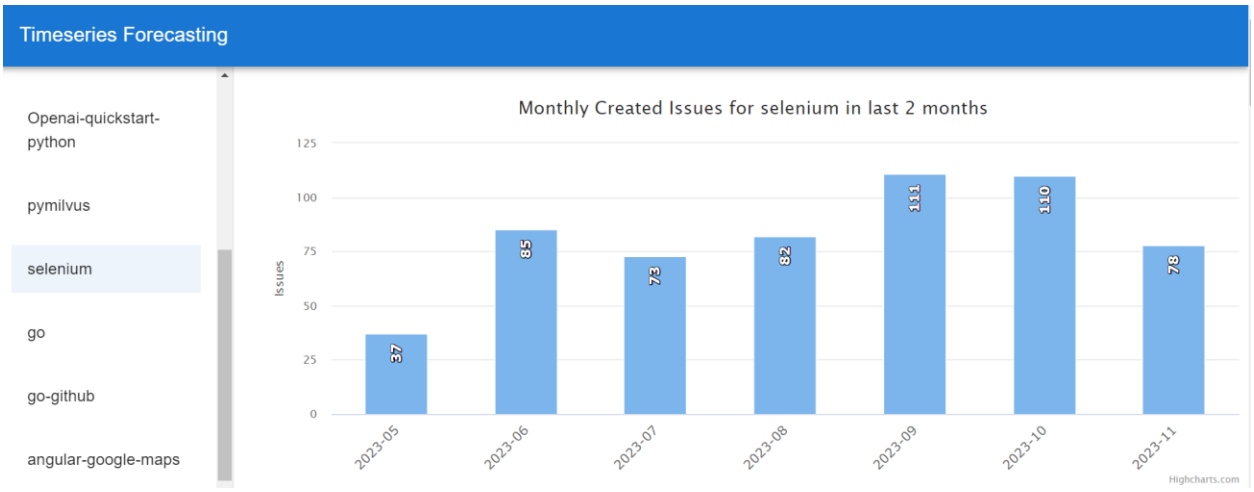
2023-11
Highcharts.com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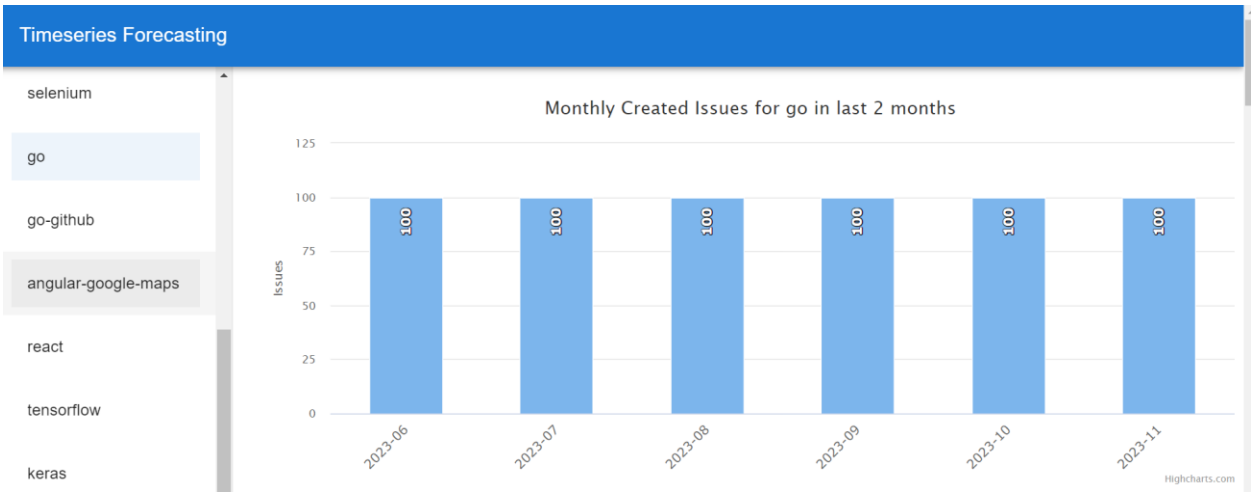
Highcharts.com


Timeseries Forecasting
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go
go-github
angular-google-maps
react
tensorflow
keras
Monthly Created Issues for go in last 2 months
Issues
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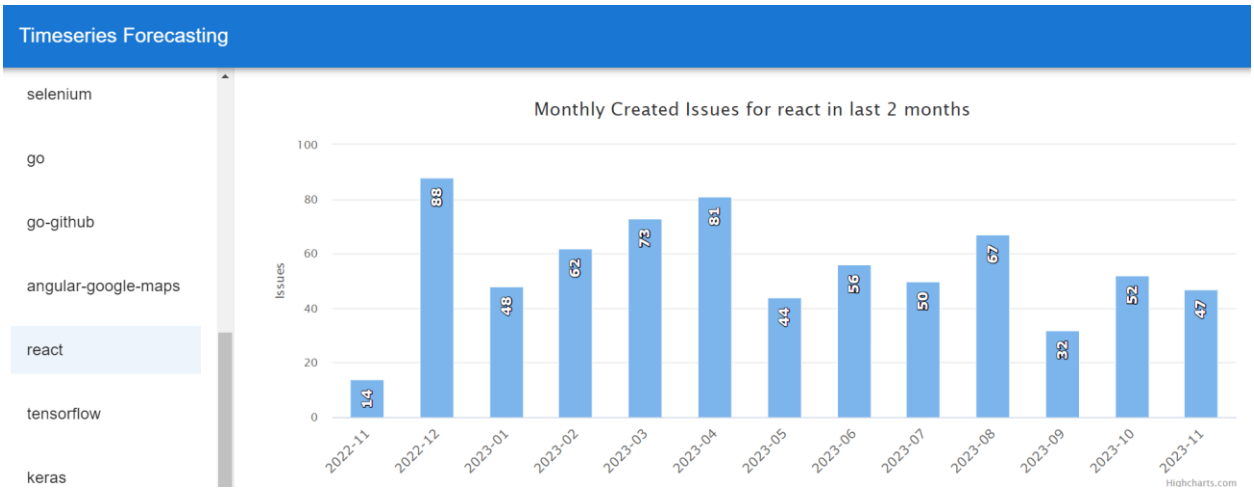
2023-11
Highcharts.com


Timeseries Forecasting
selenium
go
go-github
angular-google-maps
react
tensorflow
keras
Monthly Created Issues for react in last 2 months
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60
40
20
0
14
88
48
62
73
81
44
56
50
67
32
52
47
2022-11
2022-12
2023-01
2023-02
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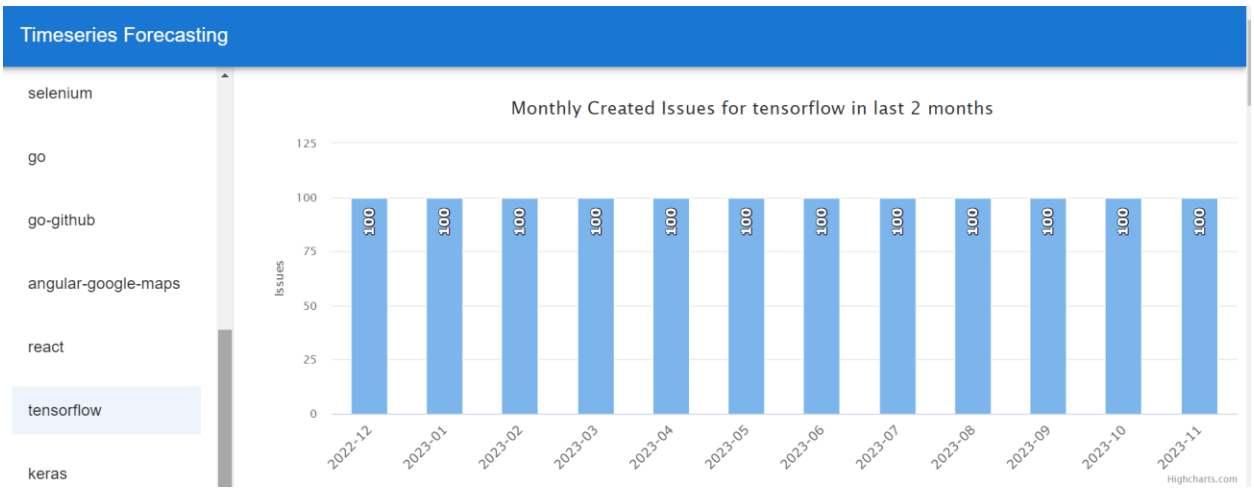
Highcharts.com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Monthly Created Issues for tensorflow in last 2 months
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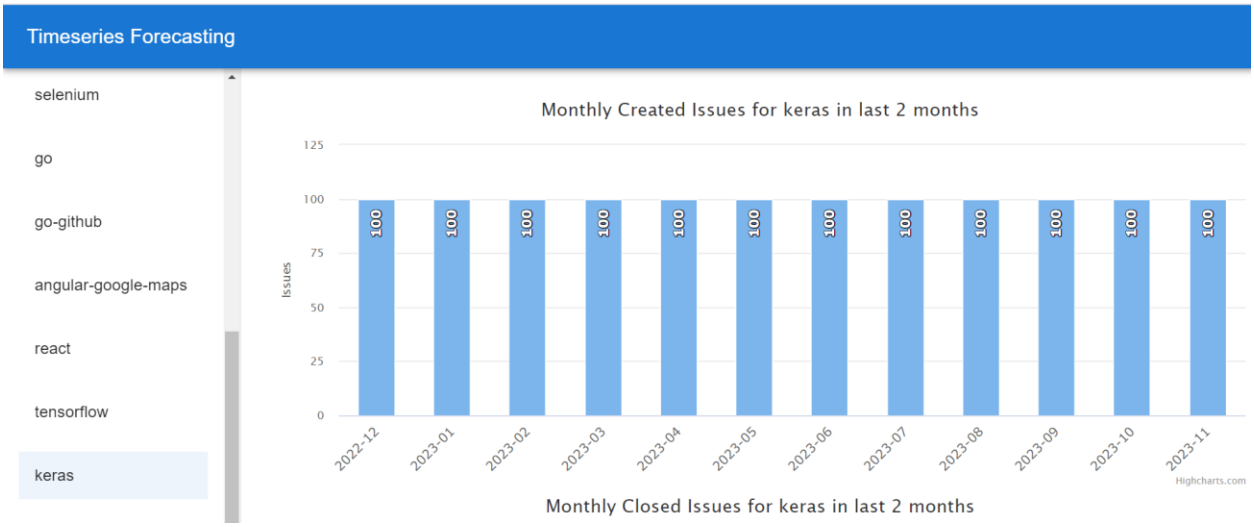
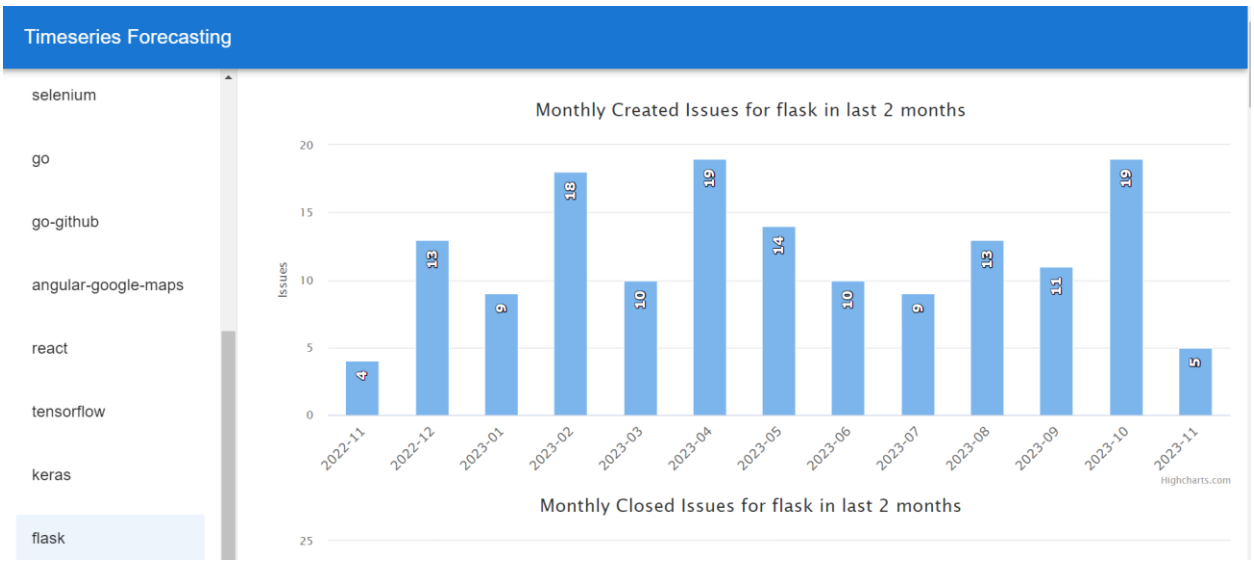
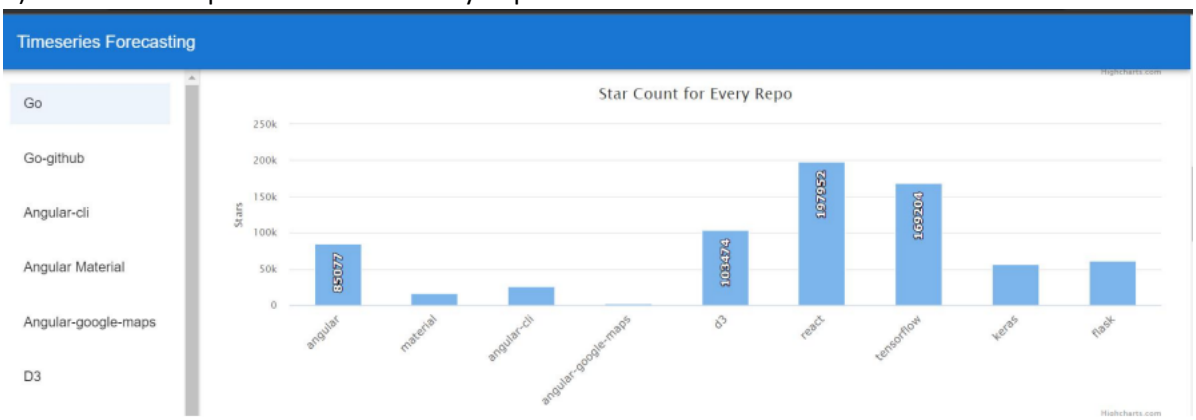
Highcharts.com

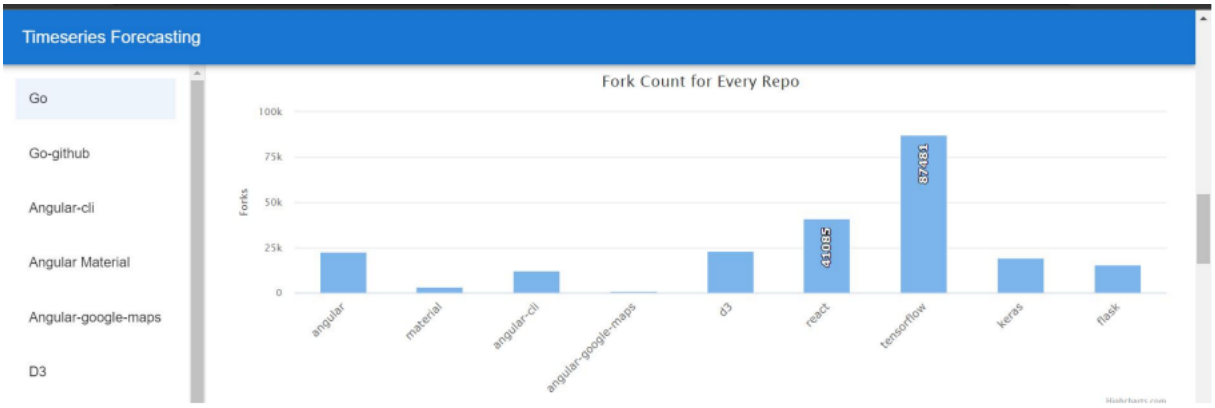




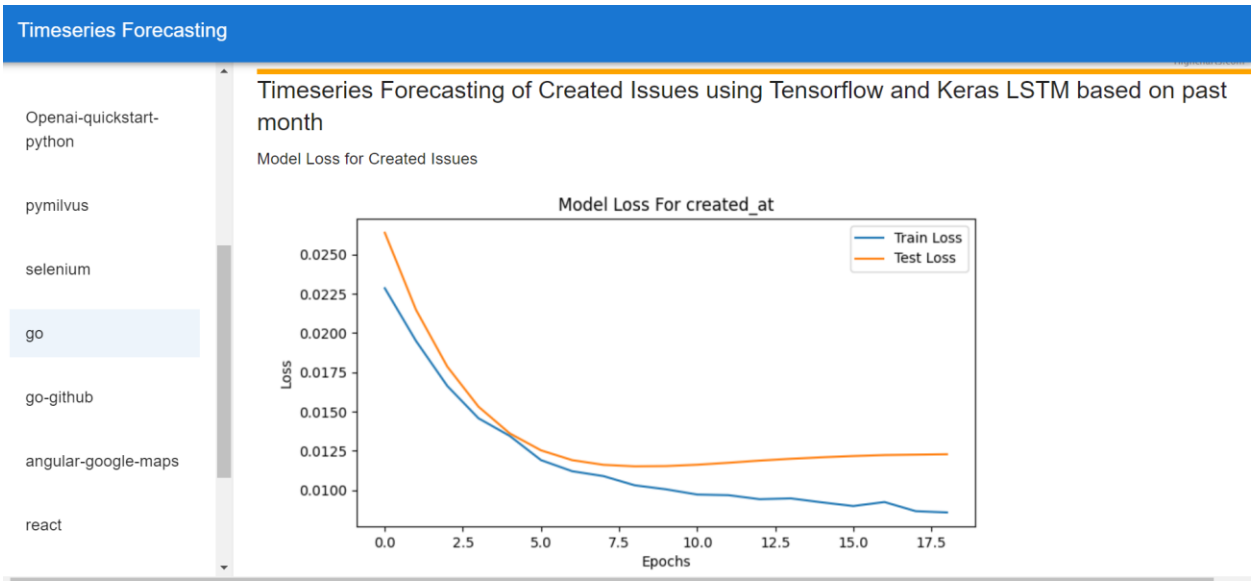
7) A Bar Chart to plot the stars for every Repo

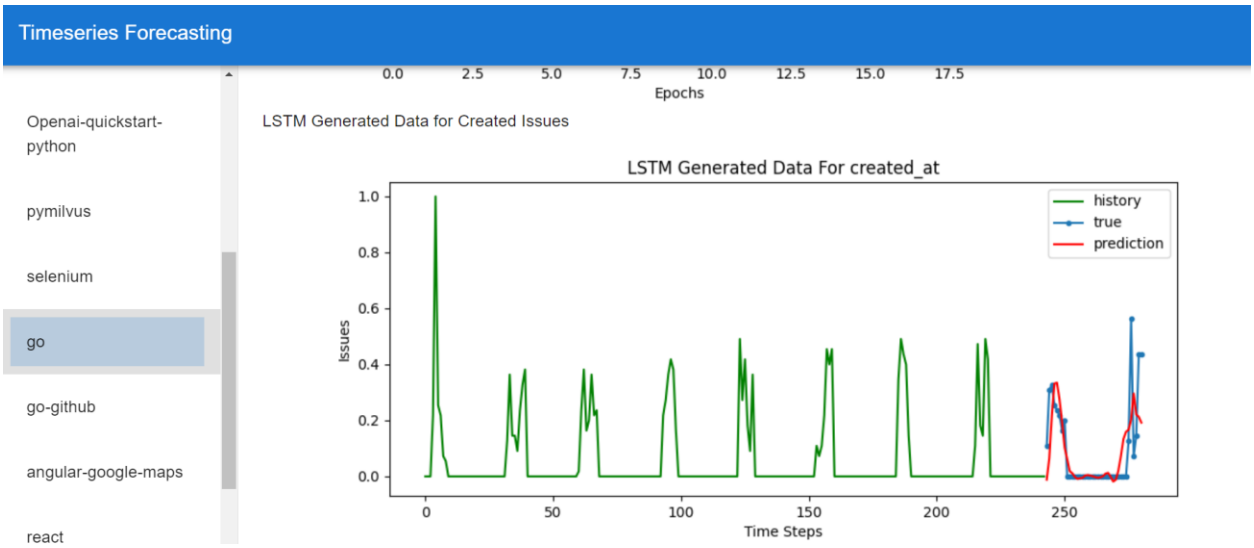


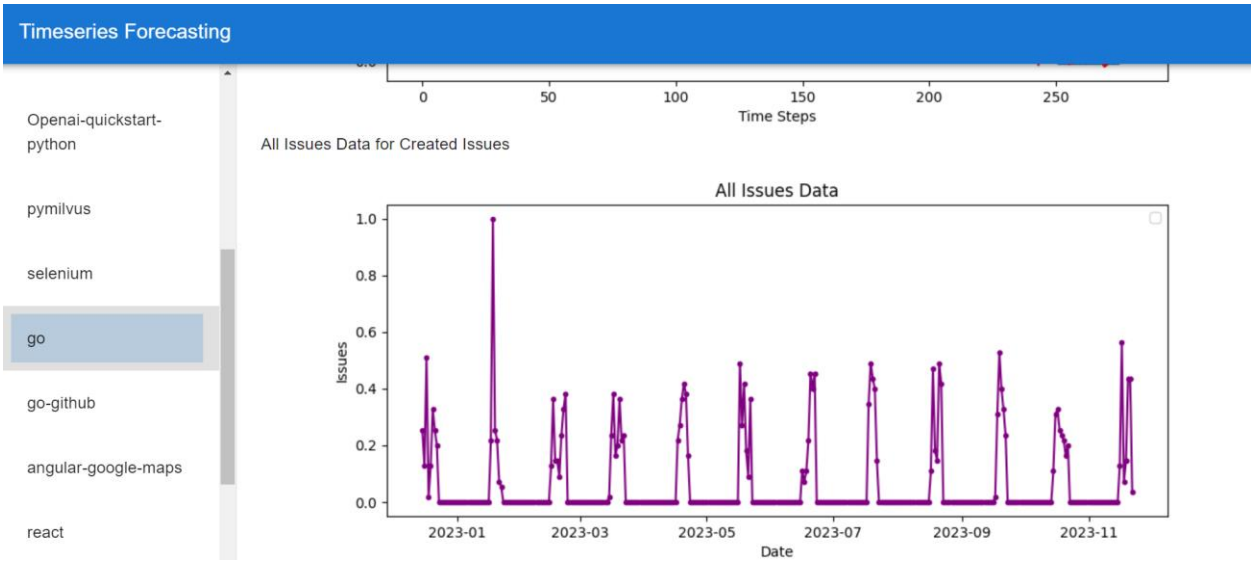
8) A Bar Chart to plot the forks for every Repo



11. LSTM forecast






Timeseries Forecasting
Openai-quickstart-python
pymilvus
selenium
go
go-github
angular-google-maps
react
0
50
100
150
200
250
Time Steps
All Issues Data for Created Issues
All Issues Data
1.0
0.8
0.6
0.4
0.2
0.0
Issues
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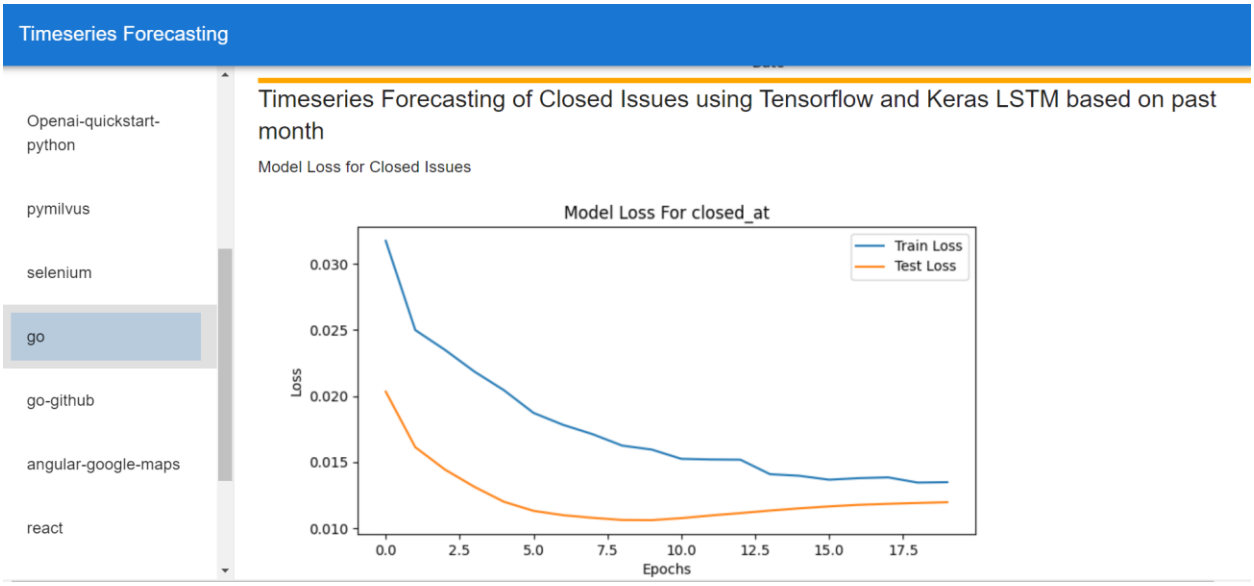
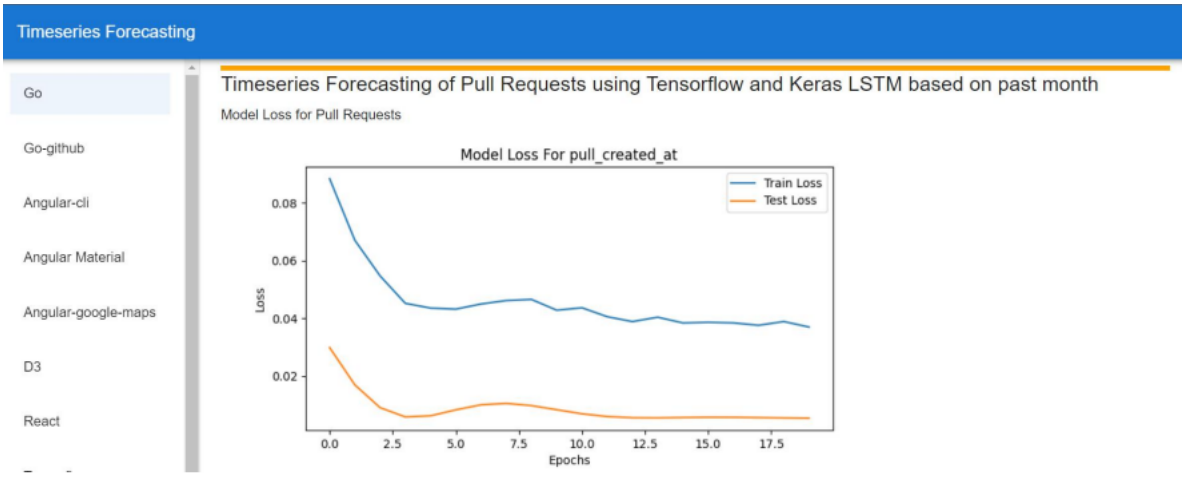
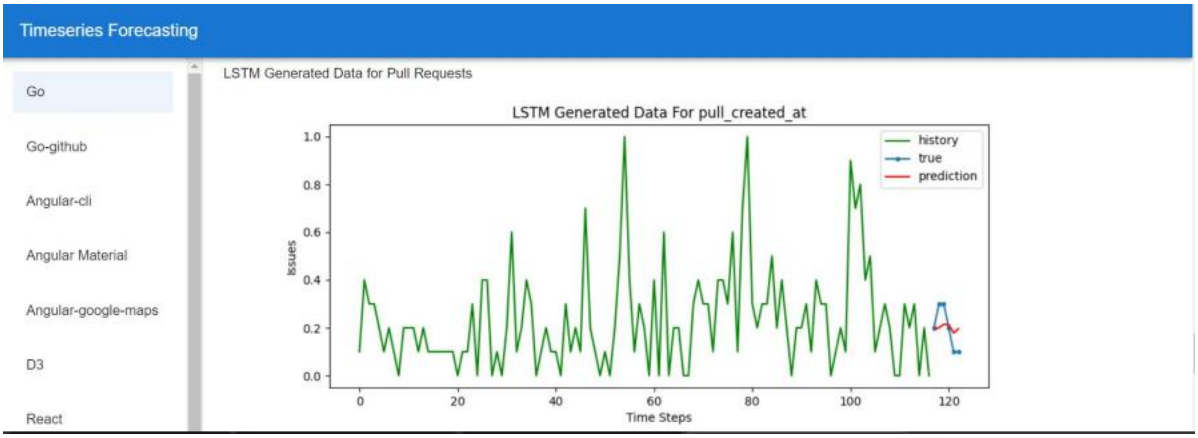
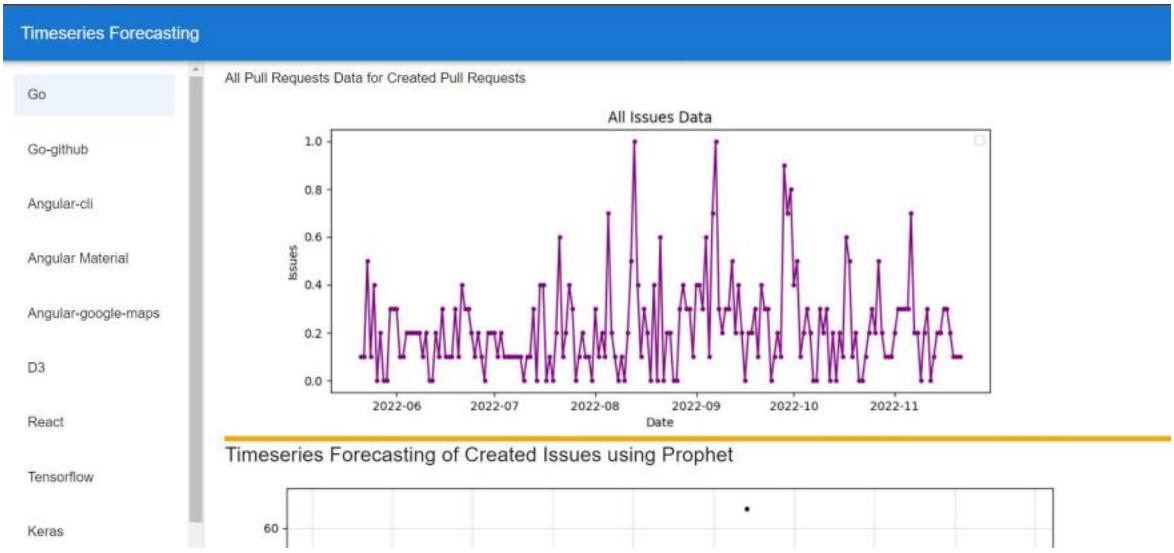
2023-03
2023-05
2023-07
2023-09
2023-11
Date


Timeseries Forecasting
Openai-quickstart-python
pymilvus
selenium
go
go-github
angular-google-maps
react
Timeseries Forecasting of Closed Issues using Tensorflow and Keras LSTM based on past month
Model Loss for Closed Issues
Model Loss For closed_at
Train Loss
Test Loss
0.030
0.025
0.020
0.015
0.010
Loss
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
Epochs

Plot the pulls forecast

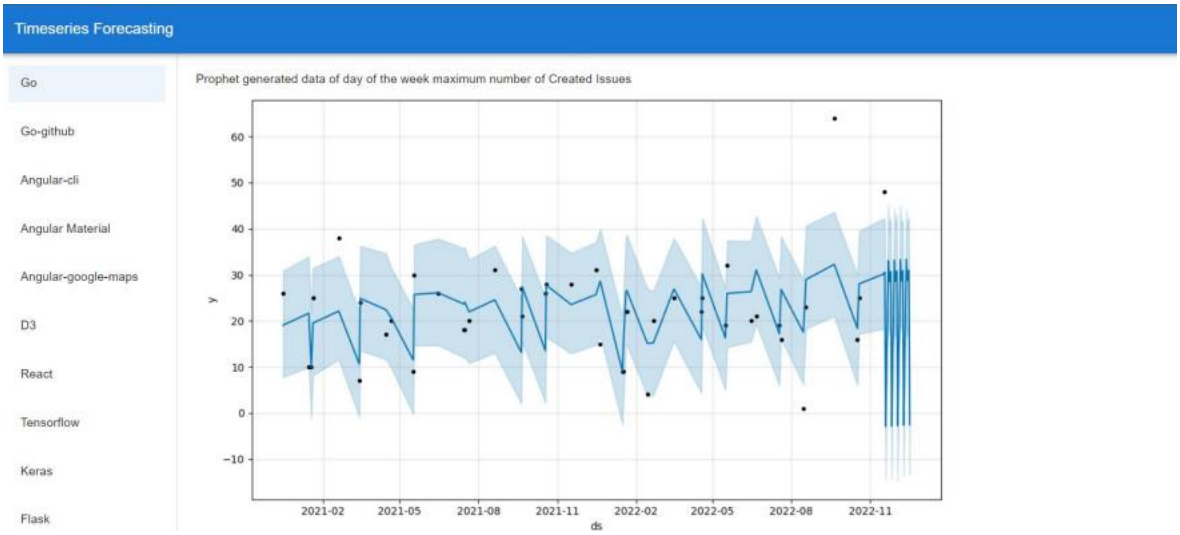


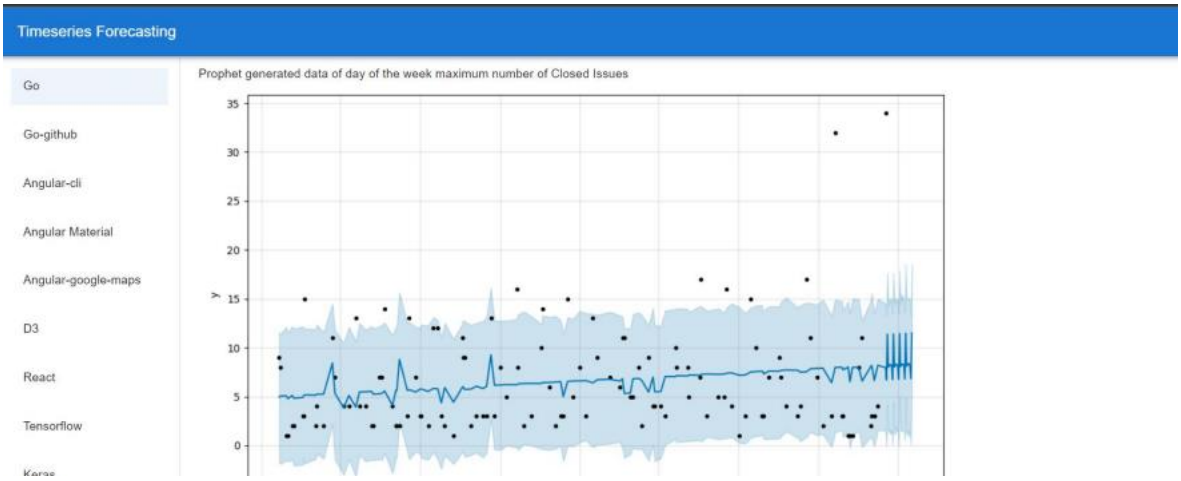




Prophet

The day of the week maximum number of issues created


Timeseries Forecasting
Go
Go-github
Angular-cli
Angular Material
Angular-google-maps
D3
React
Tensorflow
Keras
Flask
Prophet generated data of day of the week maximum number of Created Issues
y
ds
2021-02
2021-05
2021-08
2021-11
2022-02
2022-05
2022-08
2022-11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Angular-cli
Angular Material
Angular-google-maps
D3
React
Tensorflow
Prophet generated data of day of the week maximum number of Closed Issues
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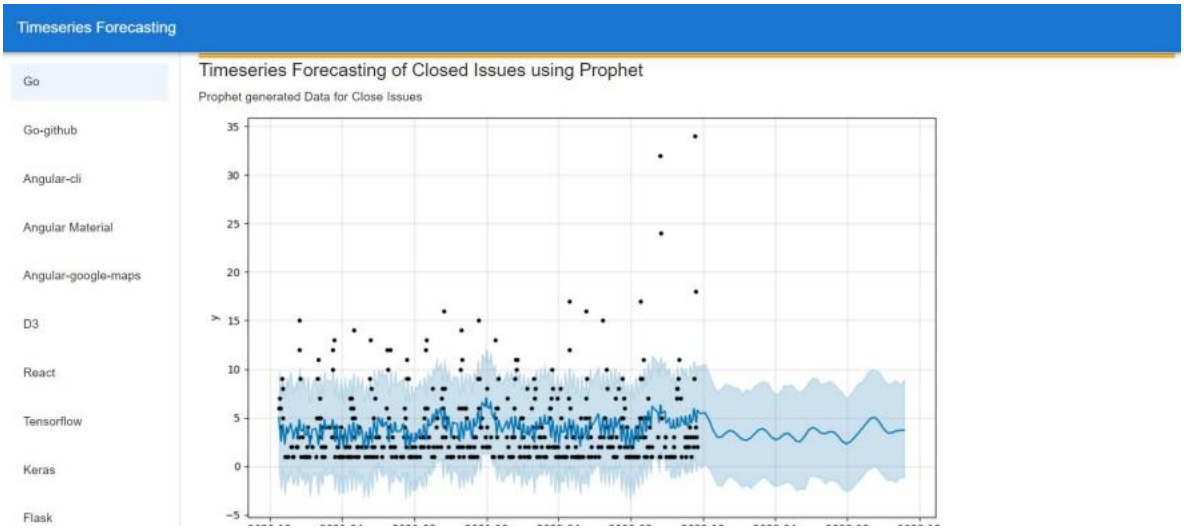
Timeseries Forecasting
Go
Go-github
Angular-cli
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D3
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Keras
Flask
Timeseries Forecasting of Closed Issues using Prophet
Prophet generated Data for Close Issues
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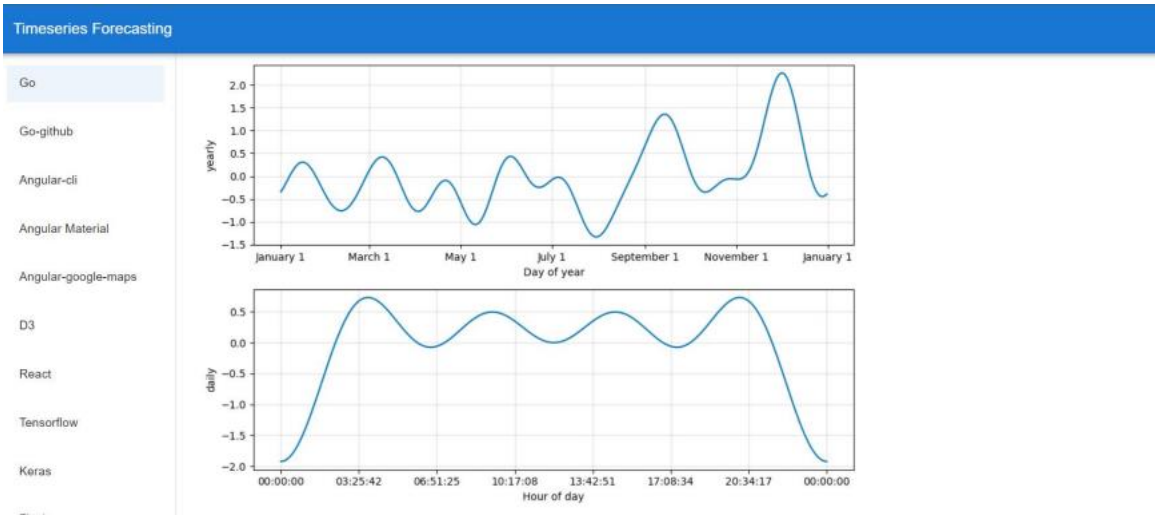
Timeseries Forecasting
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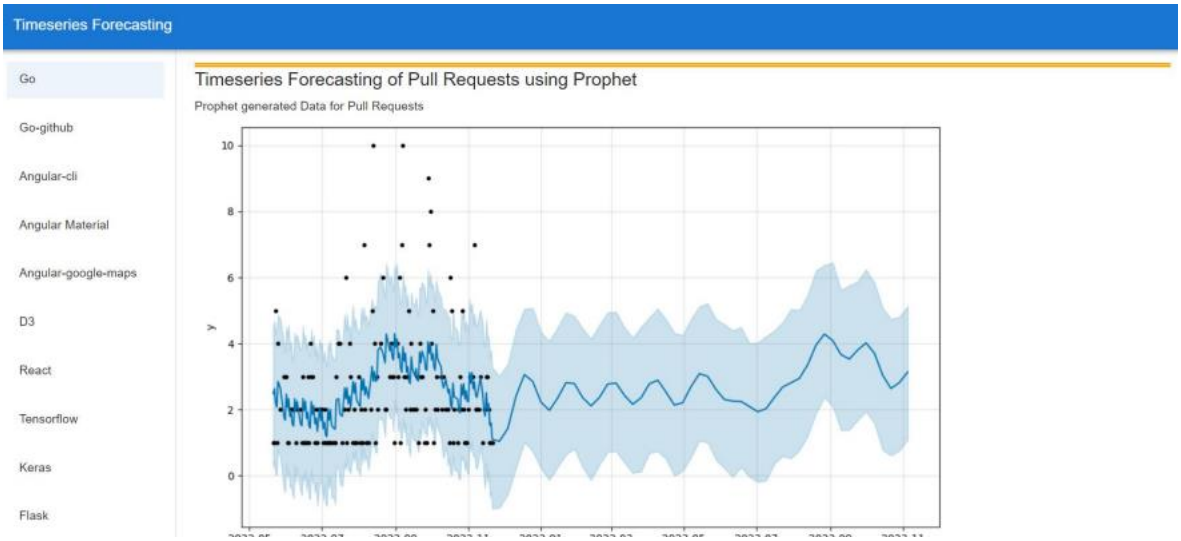
Angular Material
Angular-google-maps
D3
React
Tensorflow
Keras
yearly
January 1
March 1
May 1
July 1
September 1
November 1
January 1
Day of year
daily
00:00:00
03:25:42
06:51:25
10:17:08
13:42:51
17:08:34
20:34:17
00:00:00
Hour of day


Timeseries Forecasting
Go
Go-github
Angular-cli
Angular Material
Angular-google-maps
D3
React
Tensorflow
Keras
Flask
Timeseries Forecasting of Pull Requests using Prophet
Prophet generated Data for Pull Requests
y