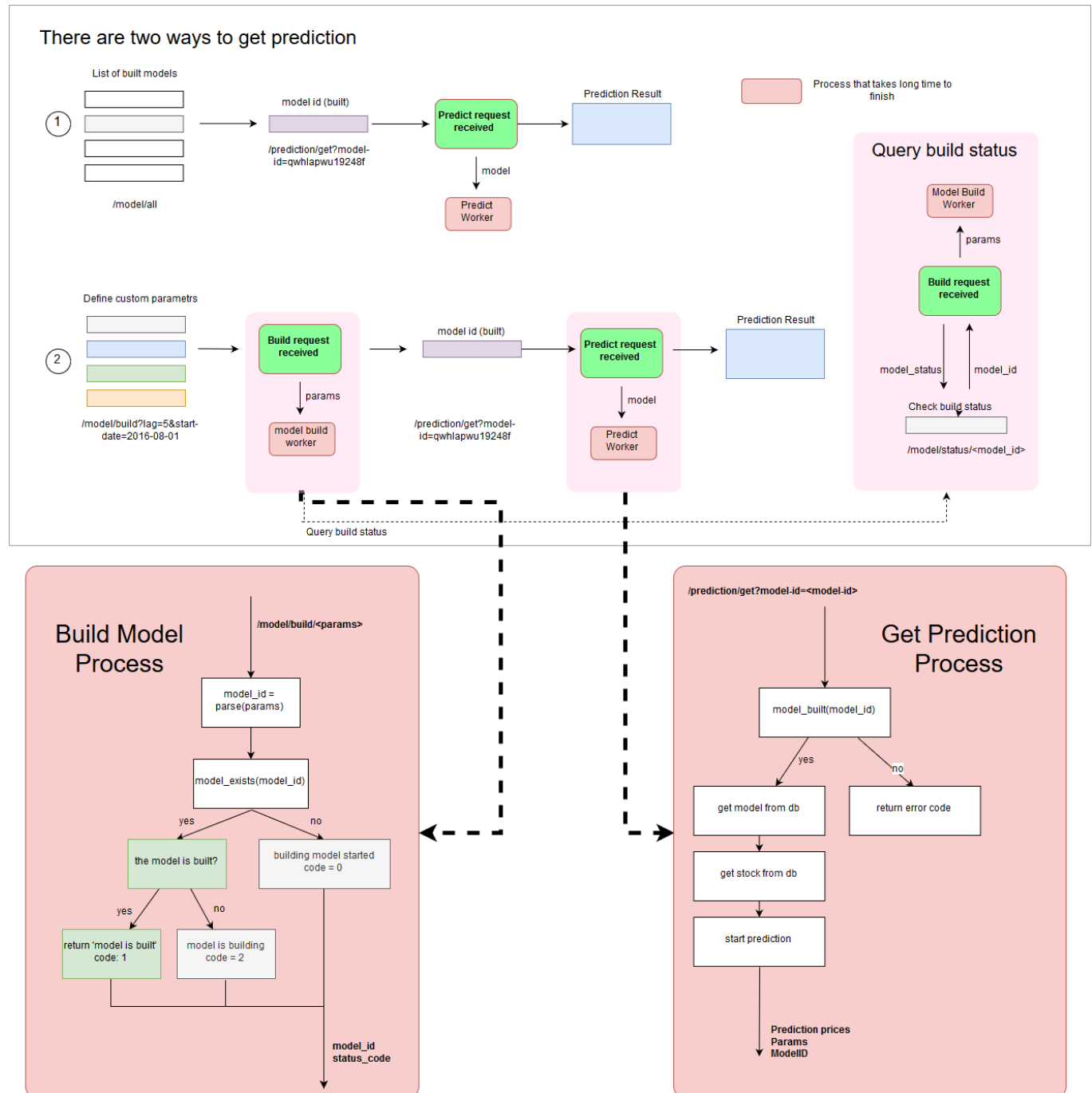


Stocker Service: Prediction Model Builder

Created by NQT on Dec 6th 2018

Process

Build The Model > Wait until the model is built > Get Prediction using the model_ids



APIs

Models

1. Build Model | `/model/build/<string:ticker>`

What: send BUILD signal, start building prediction model

Method: POST

Parameters: <param_name> | <default_value>

- `lag*` | `5` : to specify the lag of the moving average
- `start-date*` | `2016-08-01`: the date to start predict the future
- `prior` | `0.05`: change point prior scale, how the change points affect the increase/decrease of the data
- `seasonalities` | `m-y-q`: what type of seasonalities is going to affect the model (`d`: day, `w`: week, `m`: month, `q`: quarter, `y`: year)

Example request:

- `/model/build/VIC/lag=5&start-date=2016-08-01`
- `/model/build/VIC/lag=10&start-date=2016-08-01&prior=0.5&seasonalities=d-w-m-y`

Example response:

```
{
  // prediction model is new, build process started
  "status": "started",
  "status_code": {
    "model_id":
    "0f5a4258654591461682644c2ac6b1d49a456d633d307df4ac64f87ddbc80718",
    "status": 0
  }
}
```

```
{
  // prediction model is being build
  "status": "in progress",
  "status_code": {
    "model_id":
    "0f5a4258654591461682644c2ac6b1d49a456d633d307df4ac64f87ddbc80718",
    "status": 2
  }
}
```

```
{
  // model build finished, no action required
  "status": "finished",
  "status_code": {
    "model_id":
    "0f5a4258654591461682644c2ac6b1d49a456d633d307df4ac64f87ddbc80718",
    "status": 1
  }
}
```

```
}  
}
```

2. Get Model Status | `/model/status/<string:model_id>`

What: Check **Build Status** of the model using **model_id**

Method: **GET**

Status code:

- **0** : Build process STARTED
- **1** : Build process COMPLETED
- **2** : Build process IN PROGRESS

Example:

- `model/status/0f5a4258654591461682644c2ac6b1d49a456d633d307df4ac64f87ddbc80718`

Response:

```
{  
  "model_id":  
    "0f5a4258654591461682644c2ac6b1d49a456d633d307df4ac64f87ddbc80718",  
  "status": 1  
}
```

3. Get Model List | `/model/all/`

What: Get all built models

Method: **GET**

Example: `-/model/all`

Prediction

ATTENTION: TO GET PREDICTION TO WORK, MODEL HAS TO BE BUILT FIRST

1. Get prediction | `/prediction/get?model-id=<model-id>`

What: get prediction from the specified model

Method: **GET**

Paramters:

- **model-id***: the model id of the **built model**

Response:

- If the model is being built, the response will be the status of the model

- If the model is not built yet, the response will be status of the model and the model has to be [build](#)
- If the model is built, the response will be the predicted price

```
{
  "params":
    {
      "ticker": "VNM",
      "daily_seasonality": false,
      "weekly_seasonality": false,
      "monthly_seasonality": true,
      "yearly_seasonality": true,
      "quarterly_seasonality": true,
      "changepoint_prior_scale": 0.05,
      "training_years": 10,
      "date": "2016-08-01T00:00:00",
      "lag": 5
    },
  "status":
    {
      "model_id": "d7502877c8d61ac51b033a81faf5ddbdb8940b0eb1321e43c4b618b817d31e79",
      "status": 1
    },
  "prediction": [{}]
```