

# Diploma project

Author: Platonov Aleksandr

Variant: 7

Stream: 24

# APPLICATION TASK AND UI

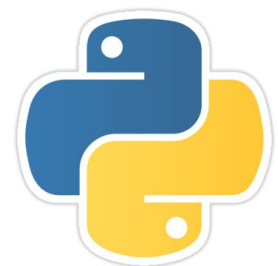
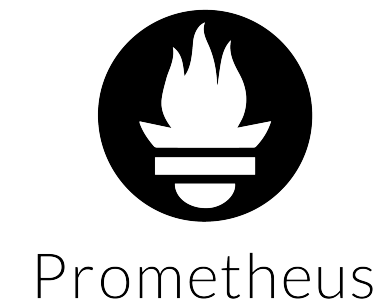
апрель 2022 г.  <span>search</span> <span>update</span> <span>stress</span> <span>Hostname: 04ff13c8387f</span> <span>Moscow</span>								
ID	DESC	ABBR	WIND	PREDICTION	PREDICT FOR	TEMP MIN	TEMP MAX	TEMP CURRENT
5323655190937600	Snow	sn	E	2022-04-01	2022-04-01	-1.2	2.4	1.5
6650612851671040	Snow	sn	ENE	2022-04-02	2022-04-02	-2.3	0.8	1.1
5527182584578048	Snow	sn	N	2022-04-03	2022-04-03	-5.7	1.3	0.8
5562170495467520	Snow	sn	S	2022-03-28	2022-04-04	-4.1	2.2	1.4
4543850761682944	Snow	sn	S	2022-03-31	2022-04-05	-3.9	3.4	2.5
5502125946699776	Snow	sn	SE	2022-03-30	2022-04-06	-1.4	3.8	2
4691041304182784	Snow	sn	SW	2022-03-31	2022-04-07	-1	3.3	3.3
6481210223099904	Snow	sn	NNW	2022-04-01	2022-04-08	0.6	6.2	2.9
5528833496186880	Snow	sn	SSE	2022-04-02	2022-04-09	0.1	8.6	1.3
5456108895338496	Snow	sn	SW	2022-04-02	2022-04-10	0	7.1	5.8
5234457310134272	Snow	sn	W	2022-04-04	2022-04-11	1.3	5.2	4.5
6446830679228416	Snow	sn	WSW	2022-04-05	2022-04-12	1.6	5.5	4.8
5778631042269184	Snow	sn	NNW	2022-04-05	2022-04-13	1.2	3.6	2.6
4887537433706496	Hail	h	NNW	2022-04-08	2022-04-14	2.5	4.9	1.5
5693569617625088	Snow	sn	WNW	2022-04-08	2022-04-15	0.3	1.5	1.2
4594938055491584	Snow	sn	NW	2022-04-09	2022-04-16	-1.4	1.9	1.4
4635419263107072	Snow	sn	N	2022-04-10	2022-04-17	-1.1	3.3	1.9

Variant 7. Using API <https://www.metaweather.com/api/> get data about weather in Moscow for current month and store it into your DB: id, weather\_state\_name, wind\_direction\_compass, created, applicable\_date, min\_temp, max\_temp, the\_temp. Output the data by date (the date is set) in form of a table and sort them by created in ascending order.

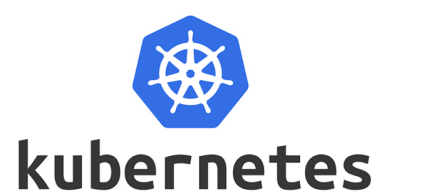
2022

# ENVIRONMENT

1. <https://github.com/Heyzi/diploma>
2. Branches: main, development



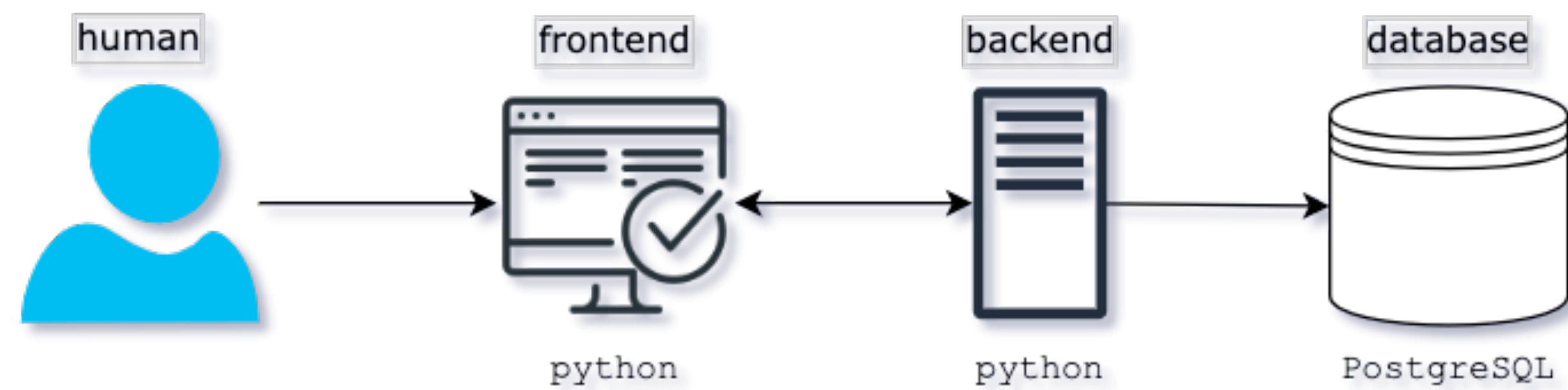
Amazon ECR



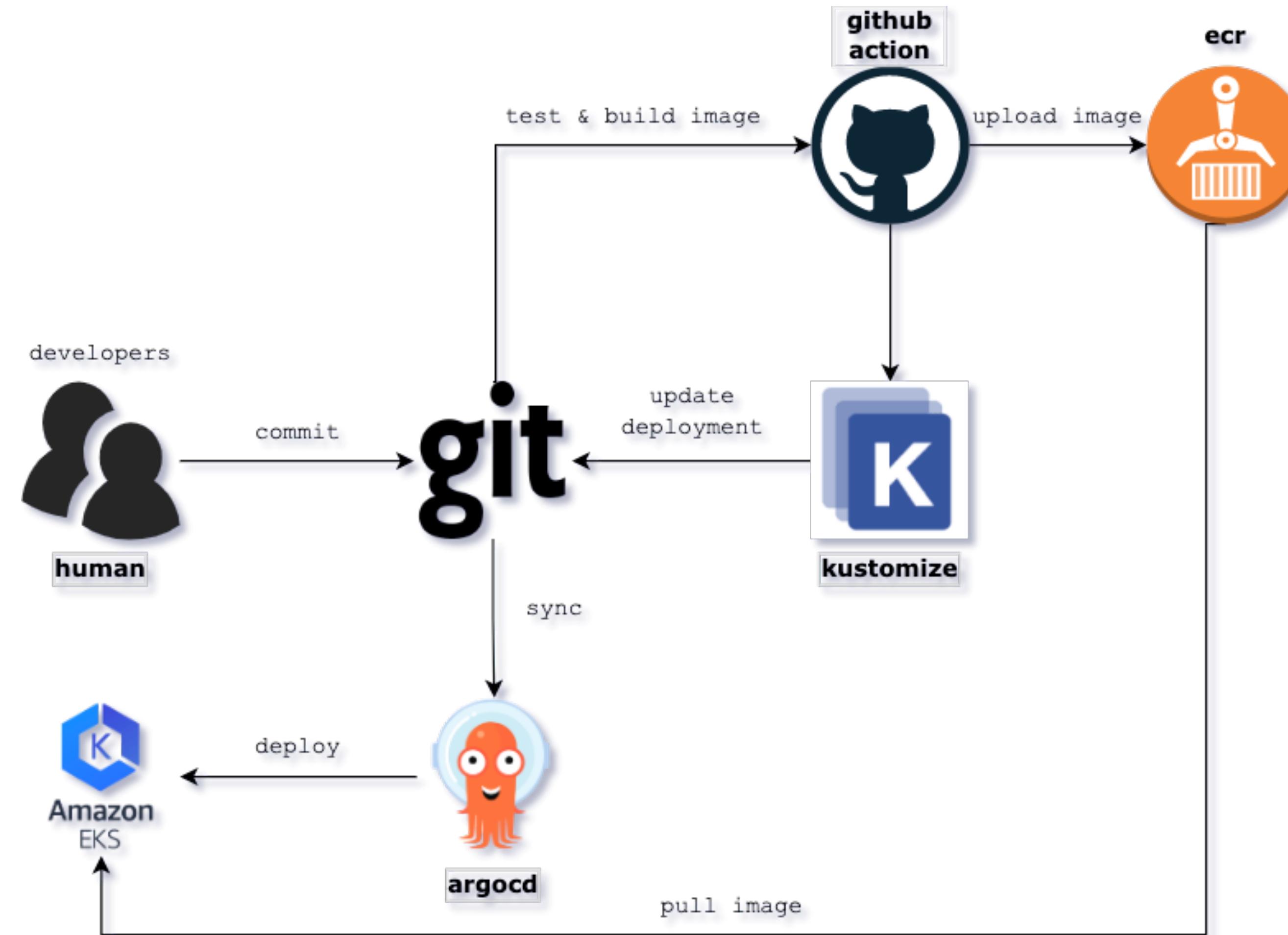
2022



# APPLICATION SCHEMA



# CI\CD SCHEMA



2022

# Monitoring



# 2022

# Logs

Explore 🔗

Loki ▾

Split

Live

> A (Loki) {app="grafana"}

+ Add query

🕒 Query history

🔍 Inspector

Logs

2022-05-04 09:22:42

{ "log": "logger=context t=2022-05-04T06:22:42.61+0000 lvl=error msg=\"Request Completed\" method=GET path=/api/datasources/proxy/2/loki/api/v1/label status=502 remote\_addr=127.0.0.1 time\_ms=1 size=0 referer=http://localhost:3000/datasources/edit/cBcgBv17k\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:22:42.610907145Z\" }

2022-05-04 09:22:54

{ "log": "logger=data-proxy-log userId=1 orgId=1 uname=admin path=/api/datasources/proxy/2/loki/api/v1/label remote\_addr=127.0.0.1 referer=http://localhost:3000/datasources/edit/cBcgBv17k t=2022-05-04T06:22:54.31+0000 lvl=error msg=\"Data proxy error\" error=\"http: proxy error: dial tcp 127.0.0.1:3100: connect: connection refused\"\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:22:54.319427584Z\" }

2022-05-04 09:22:54

{ "log": "logger=context t=2022-05-04T06:22:54.31+0000 lvl=error msg=\"Request Completed\" method=GET path=/api/datasources/proxy/2/loki/api/v1/label status=502 remote\_addr=127.0.0.1 time\_ms=1 size=0 referer=http://localhost:3000/datasources/edit/cBcgBv17k\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:22:54.319457479Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Working on ADDED configmap mon/kube-prometheus-stack-grafana-datasource\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.207336636Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Found 'data' on configmap\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.207380768Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Writing datasource.yaml\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.207486284Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Contents of datasource.yaml haven't changed. Not overwriting existing file\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.207630263Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Working on ADDED configmap mon/loki-loki-stack\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.209088086Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Found 'data' on configmap\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.209125201Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Writing loki-stack-datasource.yaml\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.209131135Z\" }

2022-05-04 09:23:10

{ "log": "[2022-05-04 06:23:10] Contents of loki-stack-datasource.yaml haven't changed. Not overwriting existing file\\n\", \"stream\": \"stdout\", \"time\": \"2022-05-04T06:23:10.209236854Z\" }

2022

# Cost calculation

Service	1 Day	30 days
\$0.010 per GB - regional data transfer - in/out/between EC2 AZs	\$0.07	\$2.16
\$0.052 per GB Data Processed by NAT Gateways	\$0.24	\$7.20
\$0.052 per NAT Gateway	\$1.25	\$37.44
\$0.048 per On Demand Linux t3.medium Instance	\$2.01	\$60.19
\$0.095 per additional GB-month of backup storage exceeding	\$0.19	\$5.76
Total:	\$3.70	\$110.91

2022



# Q&A

2022