```
(testenv2) nirviksaha@nirviks-Air testDocker2 % docker build --rm -t test:latest .
[+] Building 258.2s (15/15) FINISHED
 => [internal] load build definition from Dockerfile                                                                0.1s
 => => transferring dockerfile: 417B                                                                                0.1s
 => [internal] load .dockerignore                                                                                   0.0s
 => => transferring context: 2B                                                                                     0.0s
 => [internal] load metadata for docker.io/continuumio/miniconda:latest                                             0.9s
 => [auth] continuumio/miniconda:pull token for registry-1.docker.io                                                0.0s
 => [1/9] FROM docker.io/continuumio/miniconda:latest@sha256:fee1354ae2435522b9a8a79c5f1c406facc07ec5c44d730d8053   0.0s
 => [internal] load build context                                                                                   0.0s
 => => transferring context: 3.94kB                                                                                 0.0s
 => CACHED [2/9] WORKDIR /home/docker_conda_template                                                                0.0s
 => CACHED [3/9] COPY environment.yml ./                                                                            0.0s
 => [4/9] COPY test.py ./                                                                                           0.1s
 => [5/9] COPY templates templates/                                                                                 0.1s
 => [6/9] COPY static static/                                                                                       0.1s
 => [7/9] COPY boot.sh ./                                                                                           0.1s
 => [8/9] RUN chmod +x boot.sh                                                                                      0.5s
 => [9/9] RUN conda env create -f environment.yml                                                                 222.1s
 => exporting to image                                                                                             34.1s
 => => exporting layers                                                                                            34.1s
 => => writing image sha256:5cffc57112c535759925b2c1098e4a2f784f0630c91857833b30b72c56804519                        0.0s
 => => naming to docker.io/library/test:latest                                                                      0.0s
(testenv2) nirviksaha@nirviks-Air testDocker2 % _
```

localhost:5000 | My Drive - Google Drive | co

localhost:3200

Apps GitHub Bitbucket Docker Hub Neural networks Comp

upload a new file and view results

Choose File No file chosen | submit for inspection

---

review files in db

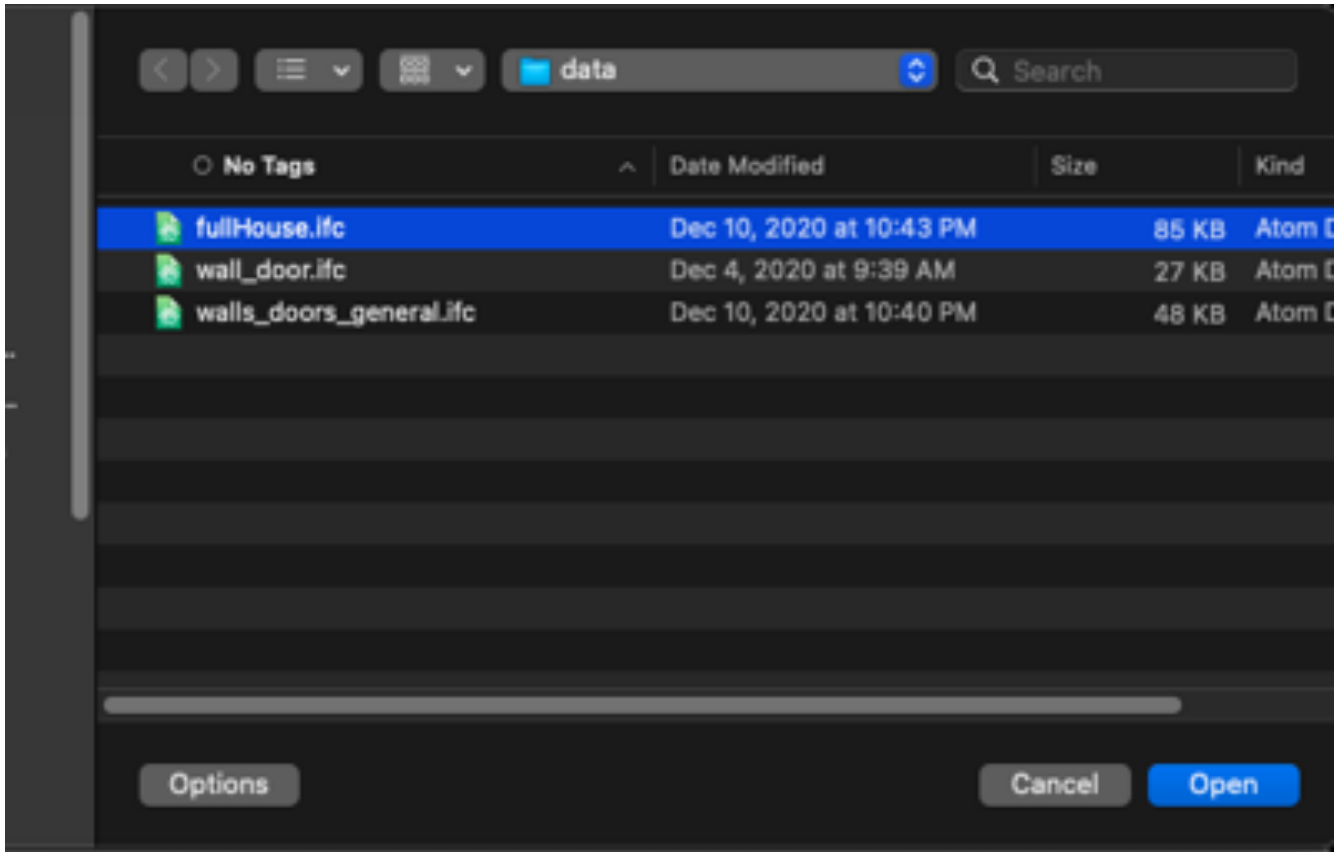
click on entry & submit to review

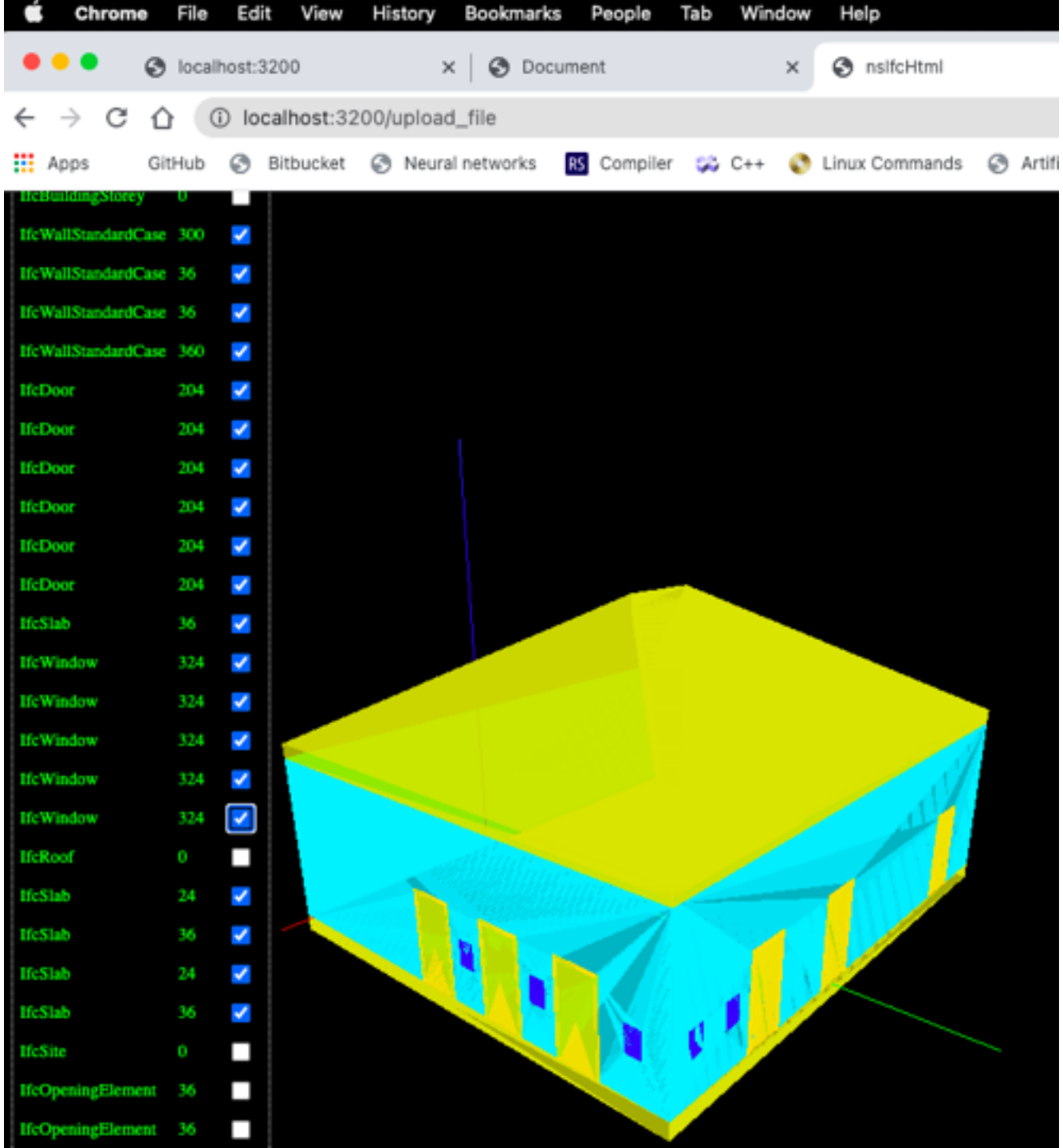
1 test_house_1

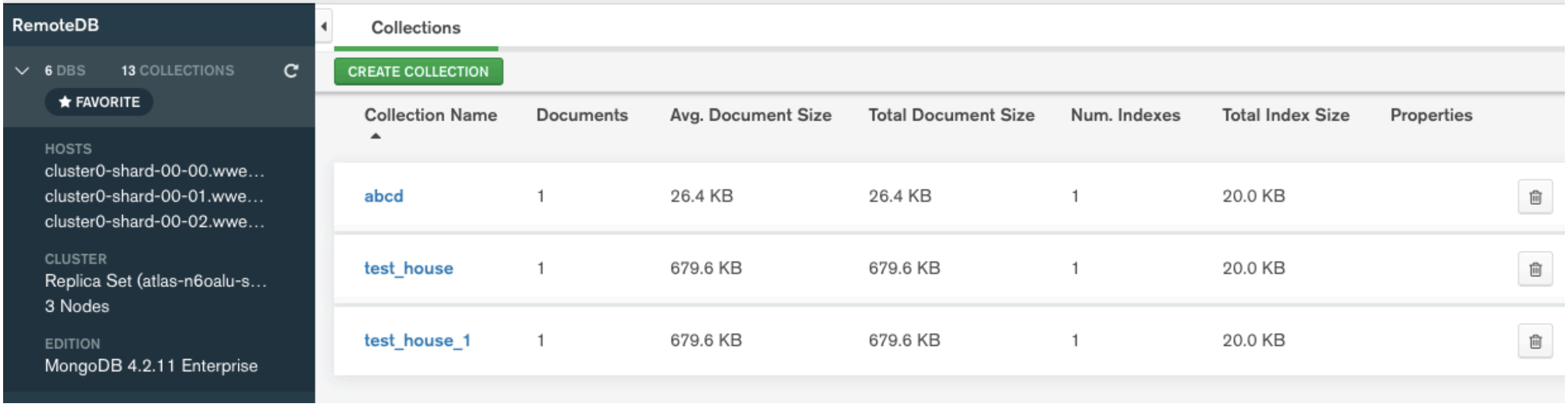
2 abcd

3 test_house

submit for view




Chrome File Edit View History Bookmarks People Tab Window Help
localhost:3200
Document
nsIfcHtml
localhost:3200/upload_file
Apps GitHub Bitbucket Neural networks Compiler C++ Linux Commands
IfcWallStandardCase 300
IfcWallStandardCase 36
IfcWallStandardCase 36
IfcWallStandardCase 360
IfcDoor 204
IfcDoor 204
IfcDoor 204
IfcDoor 204
IfcDoor 204
IfcDoor 204
IfcSlab 36
IfcWindow 324
IfcWindow 324
IfcWindow 324
IfcWindow 324
IfcWindow 324
IfcRoof 0
IfcSlab 24
IfcSlab 36
IfcSlab 24
IfcSlab 36
IfcSite 0
IfcOpeningElement 36
IfcOpeningElement 36


RemoteDB
6 DBS
13 COLLECTIONS
FAVORITE
HOSTS
cluster0-shard-00-00.wwe…
cluster0-shard-00-01.wwe…
cluster0-shard-00-02.wwe…
CLUSTER
Replica Set (atlas-n6oalu-s…
3 Nodes
EDITION
MongoDB 4.2.11 Enterprise
Collections
CREATE COLLECTION
Collection Name
Documents
Avg. Document Size
Total Document Size
Num. Indexes
Total Index Size
Properties
abcd
1
26.4 KB
26.4 KB
1
20.0 KB
test_house
1
679.6 KB
679.6 KB
1
20.0 KB
test_house_1
1
679.6 KB
679.6 KB
1
20.0 KB

RemoteDB

6 DBS 13 COLLECTIONS

FAVORITE

HOSTS
cluster0-shard-00-00.wwe…
cluster0-shard-00-01.wwe…
cluster0-shard-00-02.wwe…

CLUSTER
Replica Set (atlas-n6oalu-s…
3 Nodes

EDITION
MongoDB 4.2.11 Enterprise

Filter your data

- MoneyObj
- Parcel
- admin
- config
- ifcproj
  - abcd
  - test_house
  - test_house_1
- local

ifcproj.abcd
Documents

ifcproj.abcd

DOCUMENTS 1 TOTAL SIZE 26.4KB AVG. SIZE 26.4KB
INDEXES 1 TOTAL SIZE 20.0KB AVG. SIZE 20.0KB

Documents | Aggregations | Schema | Explain Plan | Indexes | Validation

FILTER OPTIONS FIND RESET

ADD DATA VIEW

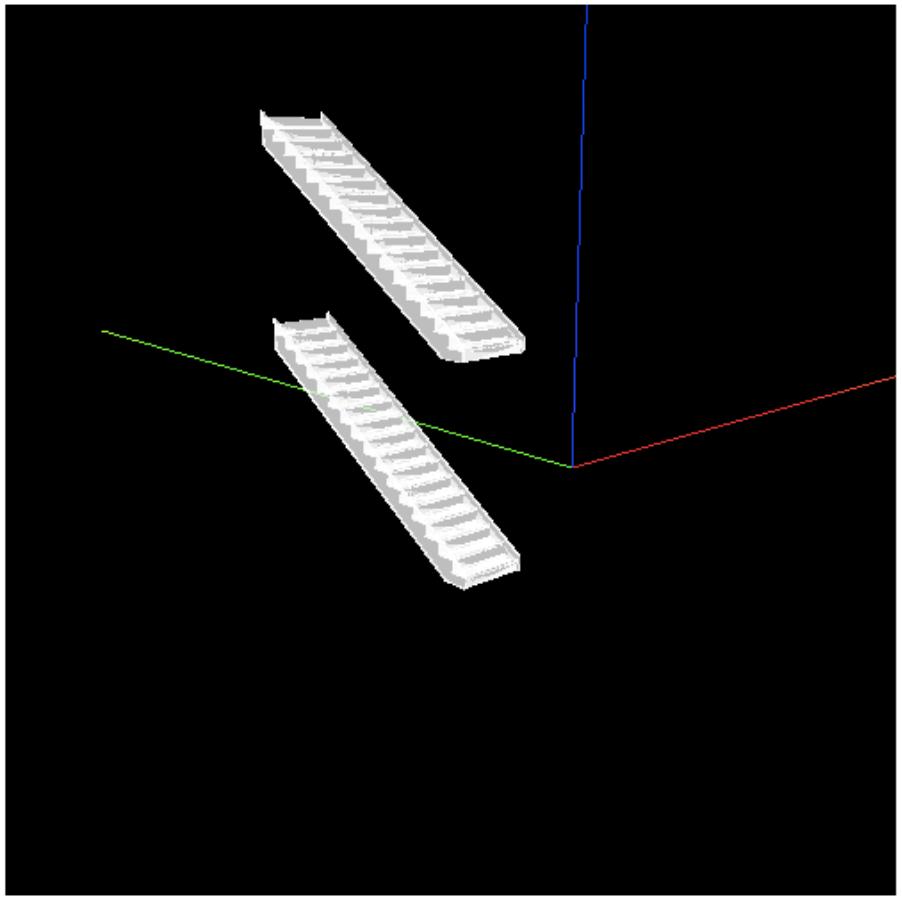
Displaying documents 1 - 1 of 1 REFRESH

```
1  _id: ObjectId("5ffe9a98f78ce1718269cdfc")                    ObjectId
     FILE_SCHEMA(('IFC2X3'));

     ENDSEC;


     DATA;

     #1= IFCORGANIZATION($,'Autodesk Revit 2016 (ENU)',$,$,$);

     #5= IFCAPPLICATION(#1,'2016','Autodesk Revit 2016 (ENU)','Revit');

     #6= IFCCARTESIANPOINT((0.,0.,0.));

   data :                                                       String
     #9= IFCCARTESIANPOINT((0.,0.));

     #11= IFCDIRECTION((1.,0.,0.));

     #13= IFCDIRECTION((-1.,0.,0.));

     #15= IFCDIRECTION((0.,1.,0.));

     #17= IFCDIRECTION((0.,-1.,0.));

     #19= IFCDIRECTION((0.,0.,1.));

3  num_lines : 418                                              Int32
```

localhost:3200/view_db_entry

Apps GitHub Bitbucket Docker Hub Neural networks Compiler Other Bookmarks

IfcWindow	324	☐
IfcWindow	324	☐
IfcStairFlight	1188	☑
IfcMember	48	☑
IfcMember	48	☑
IfcWallStandardCase	36	☐
IfcDoor	204	☐
IfcStairFlight	1188	☑
IfcMember	48	☑
IfcMember	48	☑
IfcWallStandardCase	54	☐
IfcOpeningElement	36	☐
IfcWallStandardCase	60	☐
IfcOpeningElement	36	☐
IfcOpeningElement	36	☐
IfcWallStandardCase	36	☐
IfcWallStandardCase	36	☐
IfcWallStandardCase	84	☐
IfcWallStandardCase	84	☐
IfcWallStandardCase	36	☐
IfcPlate	36	☐



docker

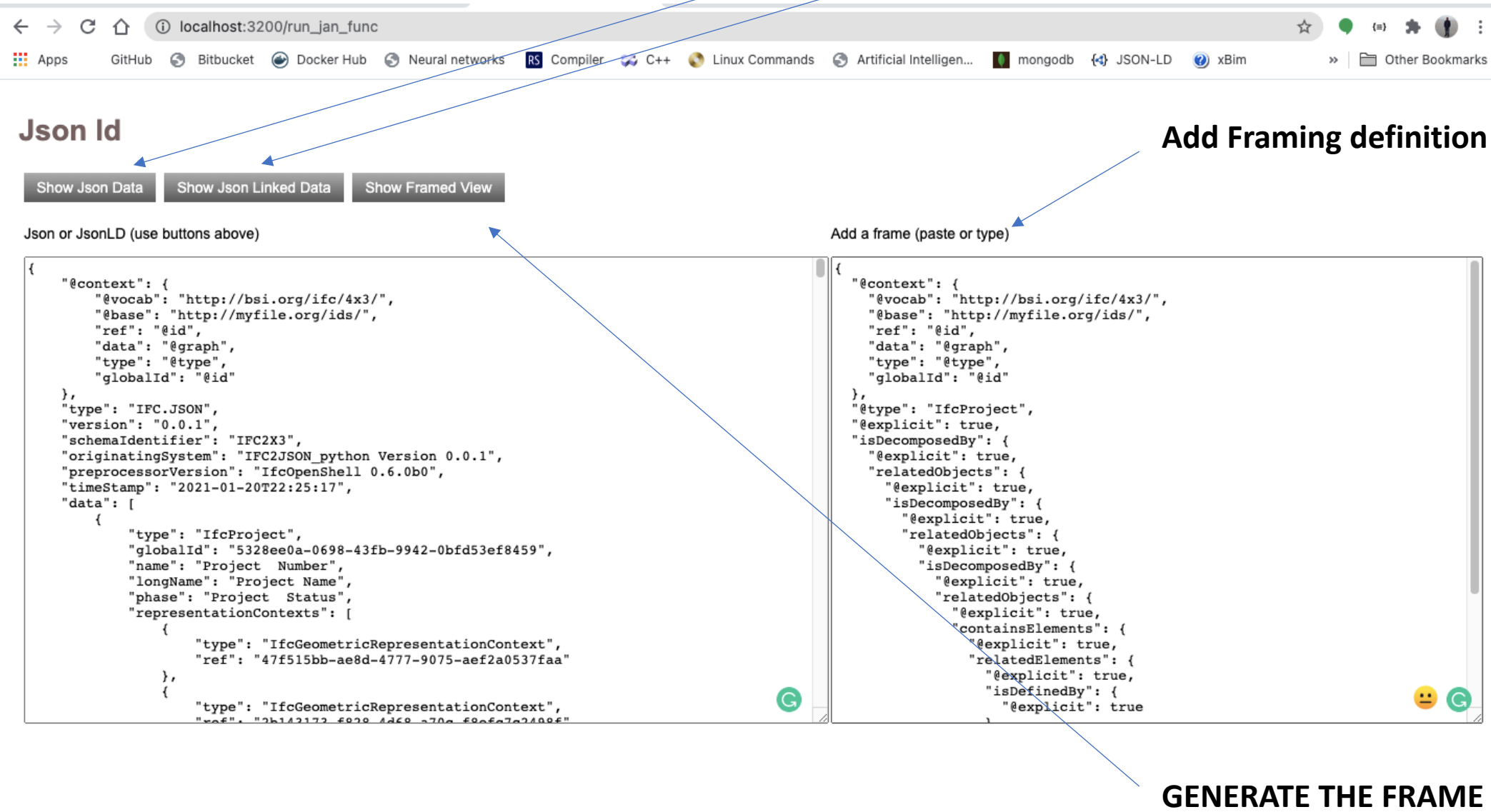
```
[2021-01-13 09:00:25 +0000] [1] [CRITICAL] WORKER TIMEOUT (pid:7)
[2021-01-13 09:00:25 +0000] [7] [INFO] Worker exiting (pid: 7)
[2021-01-13 09:00:25 +0000] [8] [INFO] Booting worker with pid: 8
connected to db...
test_house_1
abcd
test_house
[2021-01-13 09:17:59 +0000] [8] [INFO] Worker exiting (pid: 8)
[2021-01-13 09:17:59 +0000] [1] [INFO] Handling signal: term
[2021-01-13 09:18:54 +0000] [1] [INFO] Starting gunicorn 20.0.4
[2021-01-13 09:18:54 +0000] [1] [INFO] Listening at: http://0.0.0.0:3200 (1)
[2021-01-13 09:18:54 +0000] [1] [INFO] Using worker: sync
[2021-01-13 09:18:54 +0000] [8] [INFO] Booting worker with pid: 8
[2021-01-13 09:19:33 +0000] [1] [CRITICAL] WORKER TIMEOUT (pid:8)
[2021-01-13 09:19:33 +0000] [8] [INFO] Worker exiting (pid: 8)
[2021-01-13 09:19:33 +0000] [9] [INFO] Booting worker with pid: 9
connected to db...
test_house_1
abcd
test_house
view entry test_house
connected to db...
READ --> FILTER
[2021-01-13 09:20:13 +0000] [1] [CRITICAL] WORKER TIMEOUT (pid:9)
[2021-01-13 09:20:13 +0000] [9] [INFO] Worker exiting (pid: 9)
[2021-01-13 09:20:13 +0000] [18] [INFO] Booting worker with pid: 18
```

Run Jan's code
Generate JSON,
Goto JSON-LD

To view
product
Geometry

Review IFC Files
in DB

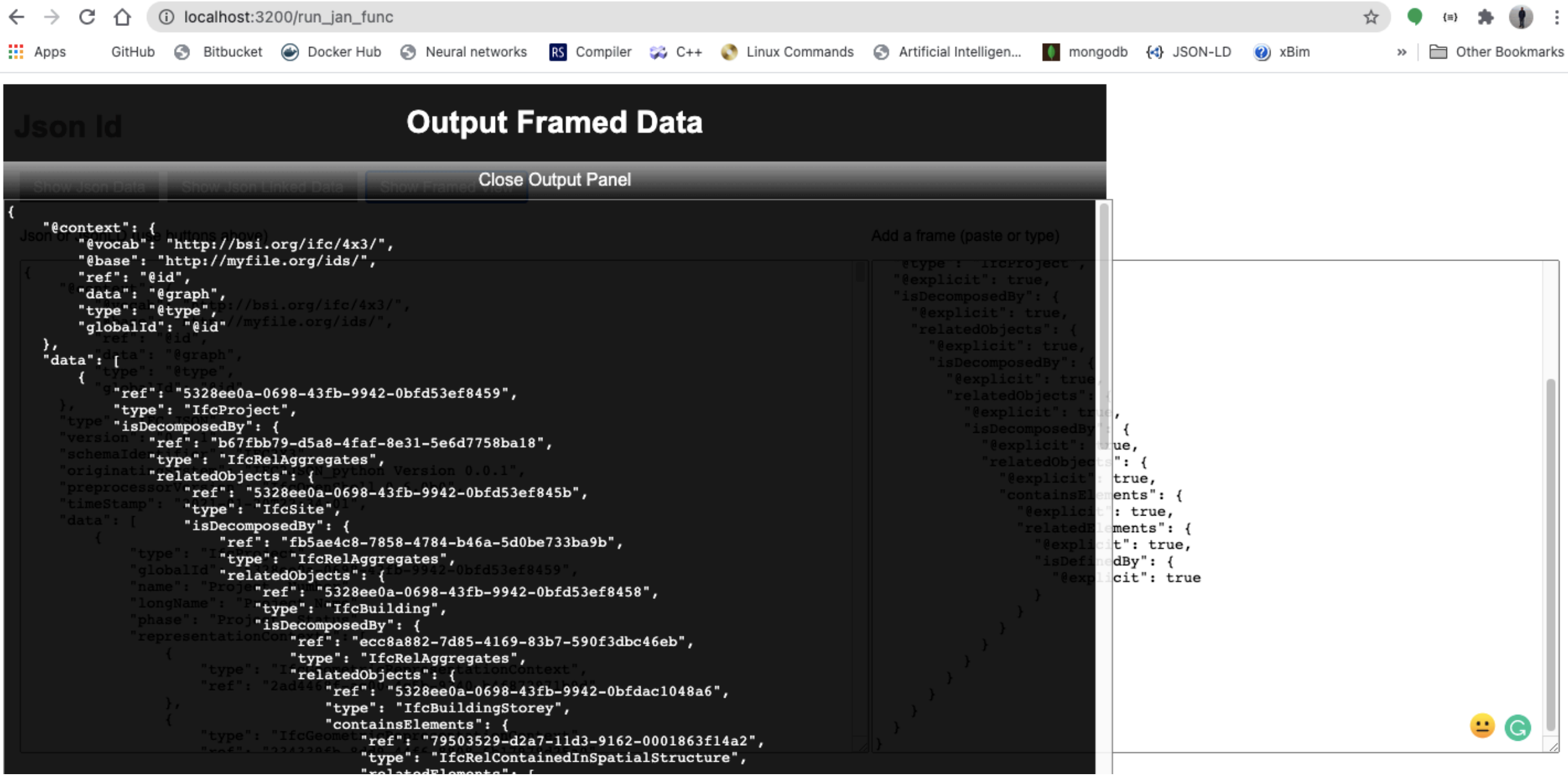
Run Jan's code & Generate JSON,
Add context to Jan Output for LD process



Add Framing definition

GENERATE THE FRAME

Generated Frame definition (view)



Works with Docker

```
(testenv2) nirviksaha@nirviks-MacBook-Air testDocker2 % docker login
Authenticating with existing credentials...
Login Succeeded
(testenv2) nirviksaha@nirviks-MacBook-Air testDocker2 % docker images
REPOSITORY           TAG       IMAGE ID       CREATED       SIZE
server               latest    4965c2dfd23f   5 days ago    1.75GB
nirvik00/nsifcproj   push2     4965c2dfd23f   5 days ago    1.75GB
test                 latest    5cffc57112c5   12 days ago   1.73GB
nirvik00/nsifcproj   <none>    5cffc57112c5   12 days ago   1.73GB
api                  latest    73a87626702c   13 days ago   772MB
(testenv2) nirviksaha@nirviks-MacBook-Air testDocker2 % docker build --rm -t server:latest .
[+] Building 288.8s (21/22)
 => [internal] load build definition from Dockerfile                                0.0ss
 => => transferring dockerfile: 84B                                                 0.0ss
 => [internal] load .dockerignore                                                   0.0ss
 => => transferring context: 2B                                                     0.0ss
 => [internal] load metadata for docker.io/continuumio/miniconda:latest             1.0ss
 => [auth] continuumio/miniconda:pull token for registry-1.docker.io                0.0ss
 => [internal] load build context                                                   0.1ss
 => => transferring context: 1.07MB                                                 0.1ss
 => [ 1/16] FROM docker.io/continuumio/miniconda:latest@sha256:fee1354ae2435522b9a8a79c5f1c406facc0  0.0ss
 => CACHED [ 2/16] WORKDIR /home/docker_conda_ifcproj                               0.0ss
 => [ 3/16] COPY environment.yml ./                                                 0.1ss
 => [ 4/16] COPY server.py ./                                                       0.1ss
 => [ 5/16] COPY process_ifc.py ./                                                  0.0s
 => [internal] load build definition from Dockerfile                                0.0s
 => [internal] load .dockerignore                                                   0.0s
 => [internal] load metadata for docker.io/continuumio/miniconda:latest             1.0s
 => [internal] load build context                                                   0.1s
[+] Building 316.0s (22/22) FINISHED                                                0.0s
 => [internal] load .dockerignore                                                   0.0s
 => [internal] load metadata for docker.io/continuumio/miniconda:latest             1.0s
 => [auth] continuumio/miniconda:pull token for registry-1.docker.io                0.0s
 => [ 1/16] FROM docker.io/continuumio/miniconda:latest@sha256:fee1354ae2435522b9a8a79c  0.0s
 => [ 4/16] COPY server.py ./                                                       0.1s
 => [ 7/16] COPY jan_func.py ./                                                     0.1s
 => [10/16] COPY janJsonFile.json ./                                                0.1s
 => [13/16] COPY static static/                                                     0.1s
 => [16/16] RUN conda env create -f environment.yml                               257.6s
 => => writing image sha256:6d97c4c017cd3bd26bb07c539ed8a99ddcb87ca08157224963bfe3e67a9  0.0s
(testenv2) nirviksaha@nirviks-MacBook-Air testDocker2 % docker images
REPOSITORY           TAG       IMAGE ID       CREATED         SIZE
server               latest    6d97c4c017cd   2 minutes ago   1.78GB
nirvik00/nsifcproj   push2     4965c2dfd23f   5 days ago      1.75GB
test                 latest    5cffc57112c5   12 days ago     1.73GB
nirvik00/nsifcproj   <none>    5cffc57112c5   12 days ago     1.73GB
api                  latest    73a87626702c   13 days ago     772MB
(testenv2) nirviksaha@nirviks-MacBook-Air testDocker2 %
```

Server

Flask App – Python

Read IFC – ifcopenshell & send to frontend

DB transactions MongoDB

Frontend

Html/css/js

Three.js to generate the 3d

Deploy

Wsgi gunicorn

Conda env

Docker

Package the virtual environment

Push to docker hub

Run via Docker