

Project Report (1 to 8 August 2020)

We've created APIs to create and list user profiles (login id and password). It stores this data in the database and shows it if required.

AWS (Amazon Web Services) hosts these, and the following URL provides access to it:

<http://ec2-54-236-56-160.compute-1.amazonaws.com/>

The creation of the various API endpoints is done in the same way, which is in the present app (in the powerplant). The present app has various pages (with the same name as the following) which show the corresponding data. The links, should you need them, are added for each endpoint. The following are the API endpoints:

1. Profile (<http://ec2-54-236-56-160.compute-1.amazonaws.com/profile/>)

User Profile List

OPTIONS GET

GET /profile/

HTTP 200 OK
Allow: GET, POST, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

```
[
  {
    "id": 1,
    "email": "btech@gmail.com",
    "name": "team"
  },
  {
    "id": 2,
    "email": "prahladchaudhary14@gmail.com",
    "name": "howsyou"
  },
  {
    "id": 3,
    "email": "prahladchaudhary17@gmail.com",
    "name": "how"
  }
]
```

Raw data HTML form

Email

Name

Password

POST

2. GetDecisionAspectCumBlock_New

(http://ec2-54-236-56-160.compute-1.amazonaws.com/GetDesisionAspectCumBlock_New/)

Get Desision Aspect Cum Block New

OPTIONS

GET

Test API View

GET /GetDesisionAspectCumBlock_New/

```
HTTP 200 OK
Allow: GET, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

{
  "Data": {
    "result": {
      "posblk": 0,
      "curblkfuelcostdcsq": 280,
      "expdpcpr": 73.30215,
      "negblkRate": 0,
      "negblk": 40,
      "bekfreq": 49.99,
      "avg_h2": 0,
      "avg": 0,
      "posblkRate": 0
    },
    "$id": "2"
  },
  "Max3sonLength": 0,
  "RecursionLimitn": 0,
  "$id": "1",
  "ContentEncoding": 0,
  "ContentType": 0,
  "JsonRequestBehavior": 1
}
```

3. GetInstanceDataRABT

(<http://ec2-54-236-56-160.compute-1.amazonaws.com/GetInstanceDataRABT/>)

Get Instance Data Rabt

OPTIONS

GET

GET /GetInstanceDataRABT/

```
HTTP 200 OK
Allow: GET, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

{
  "Data": {
    "result": {
      "askrateoverinj": 414.8028993688007,
      "posblk": 0,
      "JsonRequestBehavior": 1,
      "NoOfVollence_neg": 0,
      "acr": 240.8680000011,
      "NoOfVollence_pos": 0,
      "cumexpdpcpr": 93.39003634155407,
      "limopoverinj": 374.58792511,
      "forloweg": 345.2020088199927,
      "Max3sonLength": 0,
      "RecursionLimie": 0,
      "acp": 240.868,
      "underinjoppblk": 3.149982744634216,
      "posblkAbove20Ww": 0,
      "negblk": 17,
      "overinjopplak": 0.0,
      "lastwoblockdata": [
        {
          "blockno": "54",
          "devm": -41.36292511,
          "CurrentTime": "2020-07-19T18:19:33.4539655+05:30",
          "devrate": 0.0,
          "addidevrs": 0.0,
          "avghz": 50.064,
          "blocktime": "13:15-13:30",
          "fuelcost": 28954.047577,
          "sgm": 326.58792511,
          "devrs": 0.0,
          "netxbuse": 285.225,
          "expkpcpr": 87.33482718441954,
          "w": 288652.39,
          "netxbuse": 285.225
        }
      ]
    }
  }
}
```

4. GetNextFourBlocks_Final

(http://ec2-54-236-56-160.compute-1.amazonaws.com/GetNextFourBlocks_Final/)

Get Next Four Blocks Final

[OPTIONS](#)[GET](#)

GET /GetNextFourBlocks_Final/

HTTP 200 OK

Allow: GET, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
{
  "RecursionLimie": 0,
  "$id": "1",
  "MaxJsonlength": 0,
  "Data ": {
    "$id ": "2",
    "result ": [
      {
        "sgvalue ": 326.58792511,
        "blocktime": 0,
        "$id": "3",
        "blockno ": 55,
        "ftfhz ": 49.98275,
        "dcvalue ": 562.476778
      }
    ]
  }
}
```

5. GetDCSGLastBlockData_New

(http://ec2-54-236-56-160.compute-1.amazonaws.com/GetDCSGLastBlockData_New/)

Get Dcsg Last Block Data New

[OPTIONS](#)[GET](#)

GET /GetDCSGLastBlockData_New/

HTTP 200 OK

Allow: GET, HEAD, OPTIONS

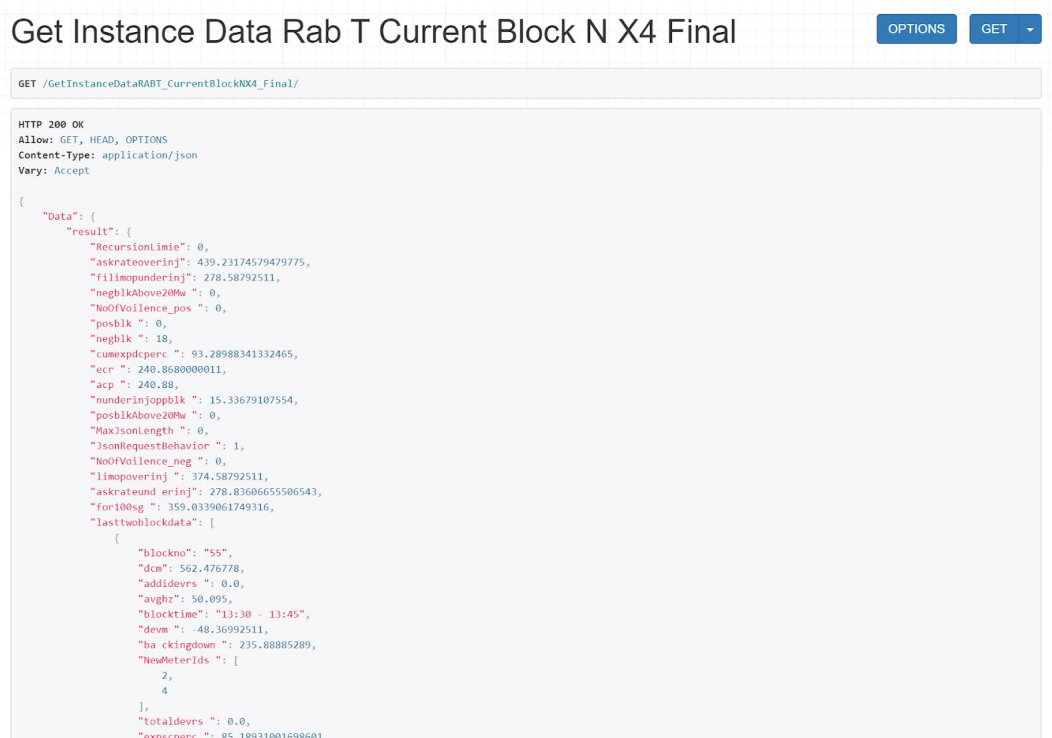
Content-Type: application/json

Vary: Accept

```
{
  "Data": {
    "result": {
      "RecursionLimie": 0,
      "devmhlacs ": -5.041993706694498,
      "ListDev%hData": [
        -51.86876,
        -15.86376,
        -51.39376,
        -56.57176,
        -31.44776,
        -15.94392511,
        -35.38292511,
        -7.91356907,
        -6.87571108,
        -6.41592511,
        -54.35676,
        -27.03776,
        -33.40976,
        -0.2248531,
        -38.81992511,
        -53.63776,
        -45.53776,
        -20.37792511,
        -40.22192511,
        -25.59876,
        -10.57176,
        -11.66276,
        -6.793,
        -10.19692511,
        -53.57976,
        -5.97076,
        -51.58576,
        -34.11176,
        -10.1608531,
        -35.05592511,
      ]
    }
  }
}
```

6. GetInstanceDataRABT_CurrentBlockNX4_Final

(http://ec2-54-236-56-160.compute-1.amazonaws.com/GetInstanceDataRABT_CurrentBlockNX4_Final/)



```
GET /GetInstanceDataRABT_CurrentBlockNX4_Final/

HTTP 200 OK
Allow: GET, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

{
  "Data": {
    "result": {
      "RecursionTime": 0,
      "askrateoverinj": 439.23174579479775,
      "fillmopunderinj": 278.58792511,
      "negblkAbove200w": 0,
      "NoOfViolence_pos": 0,
      "posblk": 0,
      "negblk": 18,
      "cumexpdperc": 93.28988341332465,
      "ecr": 240.8680000011,
      "acp": 240.88,
      "numberinoppblk": 15.33679107554,
      "posblkAbove200w": 0,
      "Maxjsonlength": 0,
      "JsonrequestBehavior": 1,
      "NoOfViolence_neg": 0,
      "limopoverinj": 374.58792511,
      "askrateund erinj": 278.83606655506543,
      "for100sg": 359.0339061749316,
      "lasttwoblockdata": [
        {
          "blockno": "55",
          "dcm": 562.476778,
          "addidevrs": 0.0,
          "avghz": 50.095,
          "blocktime": "13:30 - 13:45",
          "devm": -48.36992511,
          "ba ckingdown": 235.88885289,
          "NewMeterIds": [
            2,
            4
          ],
          "totaldevrs": 0.0,
          "expsperc": 85.18931001698601,

```

For now, every API uses static data, i.e. the APIs have hardcoded values corresponding the listed fields. We can change this to range-constrained data (using the random function) for testing, or we can create a database from which the APIs will get the data.

Future Work

The further creation of APIs for authentication and login will provide authentication functionality to the application. The login API generates a token for the authentication API, which on future requests, validates it, providing authentication for the user.

Finally, We will call these APIs from the android application and will populate different fields with the corresponding data.