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Aim : Cloudant database in IBM Cloud integration with a third-party application (Postman)

1. Install third party application postman on your system

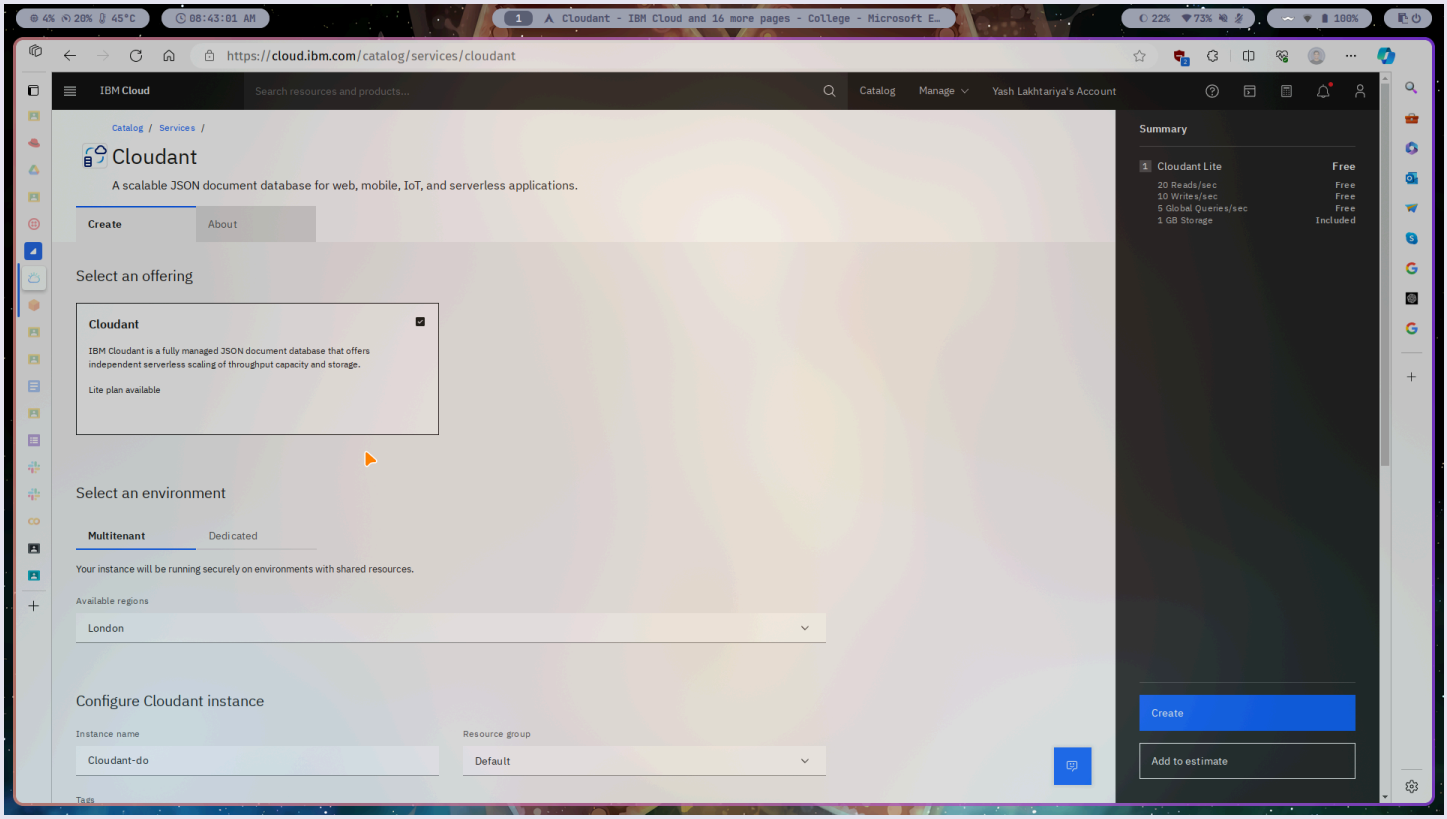
2. Create database for novel shop and document via creating an instance of Cloudant database.

4. Perform crud operations on database created using API's

5. Make PDF document for performed tasks

Steps and screenshots :

1. Create Cloudant service on IBM Cloud



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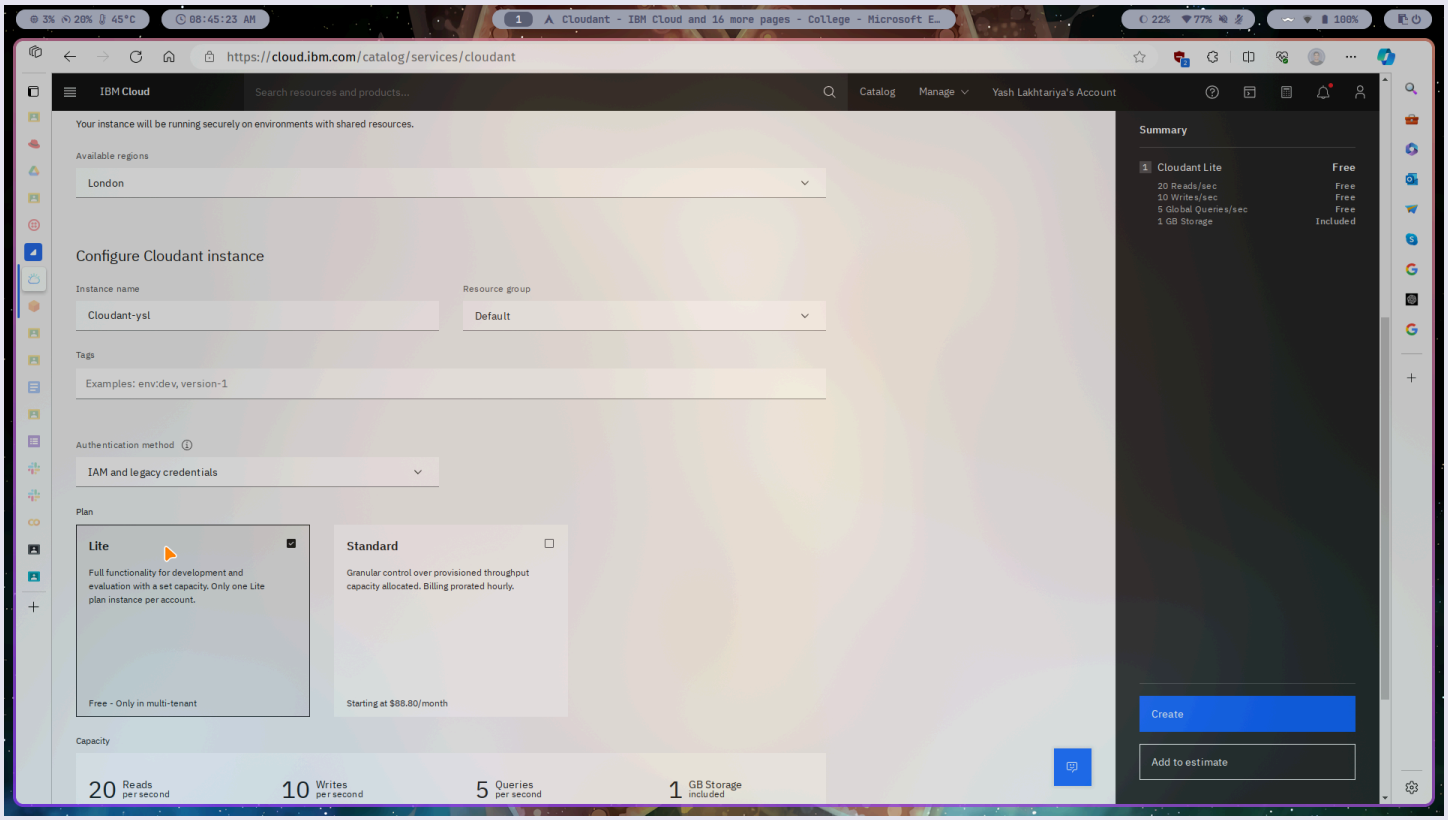
2. Select preferred region and choose ***IAM and Legacy Credentials*** as Authentication method and rest default options



(Here, to send API requests through third party app (postman), we need to choose IAM and legacy credentials, not IAM only)

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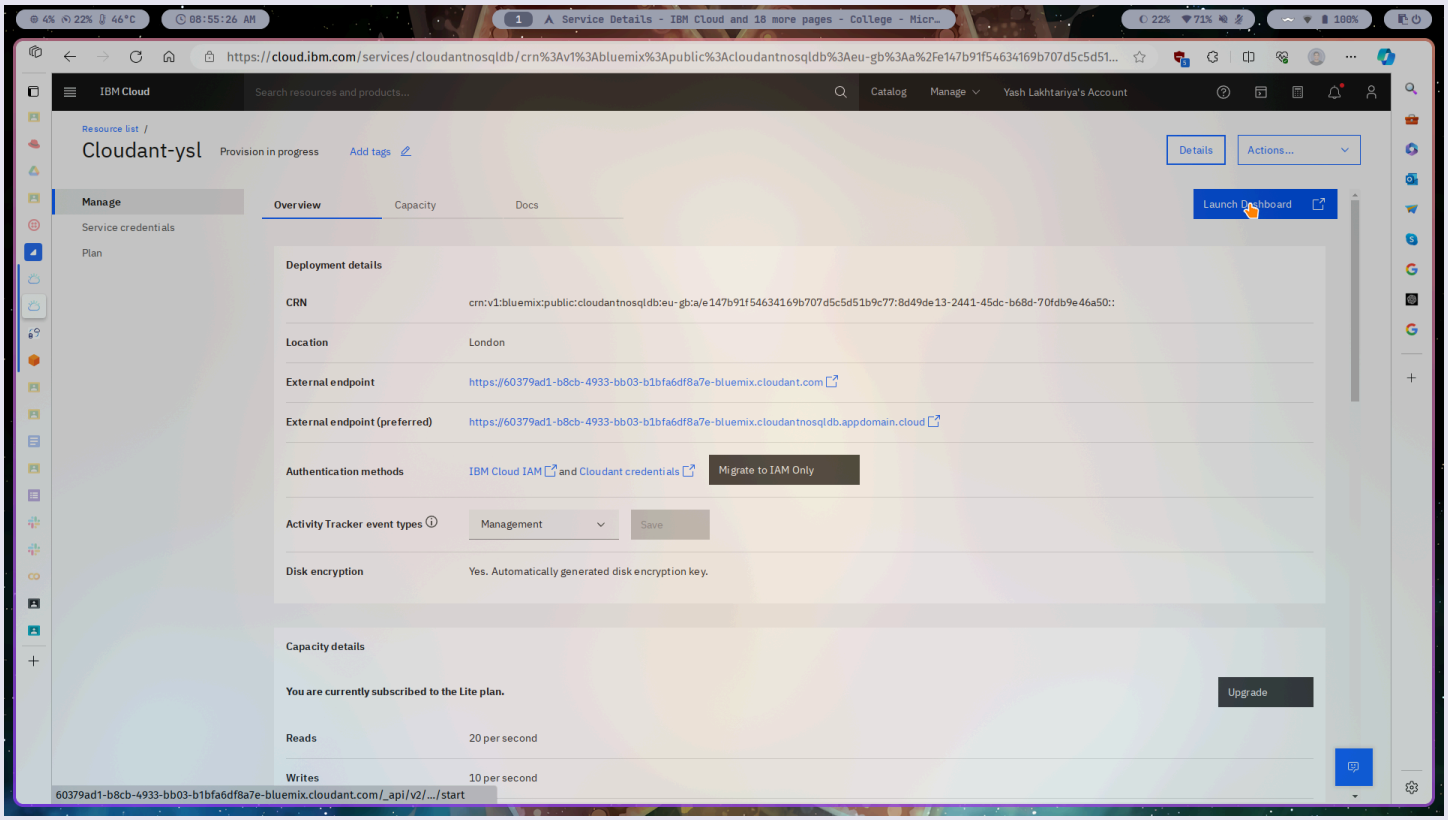
3. Now, after the creation of service, the dashboard of cloudant can be launched via option on top right



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4. On dashboard, in databases tab, create a database and specify the name. The partitioning option should be ***Non-partitioned***

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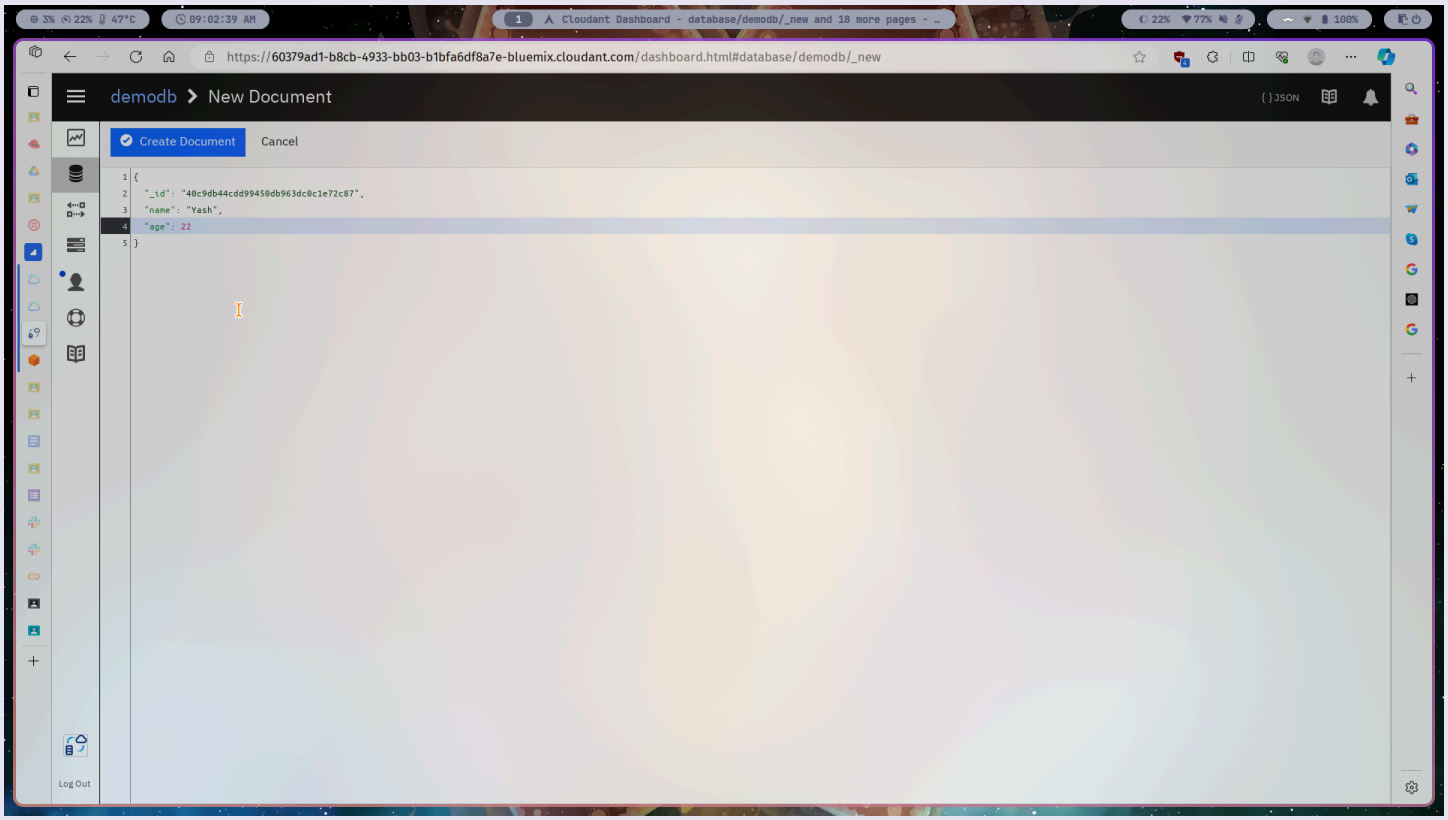
5. In the database created, create a document with some key-value pairs, as it is in JSON format



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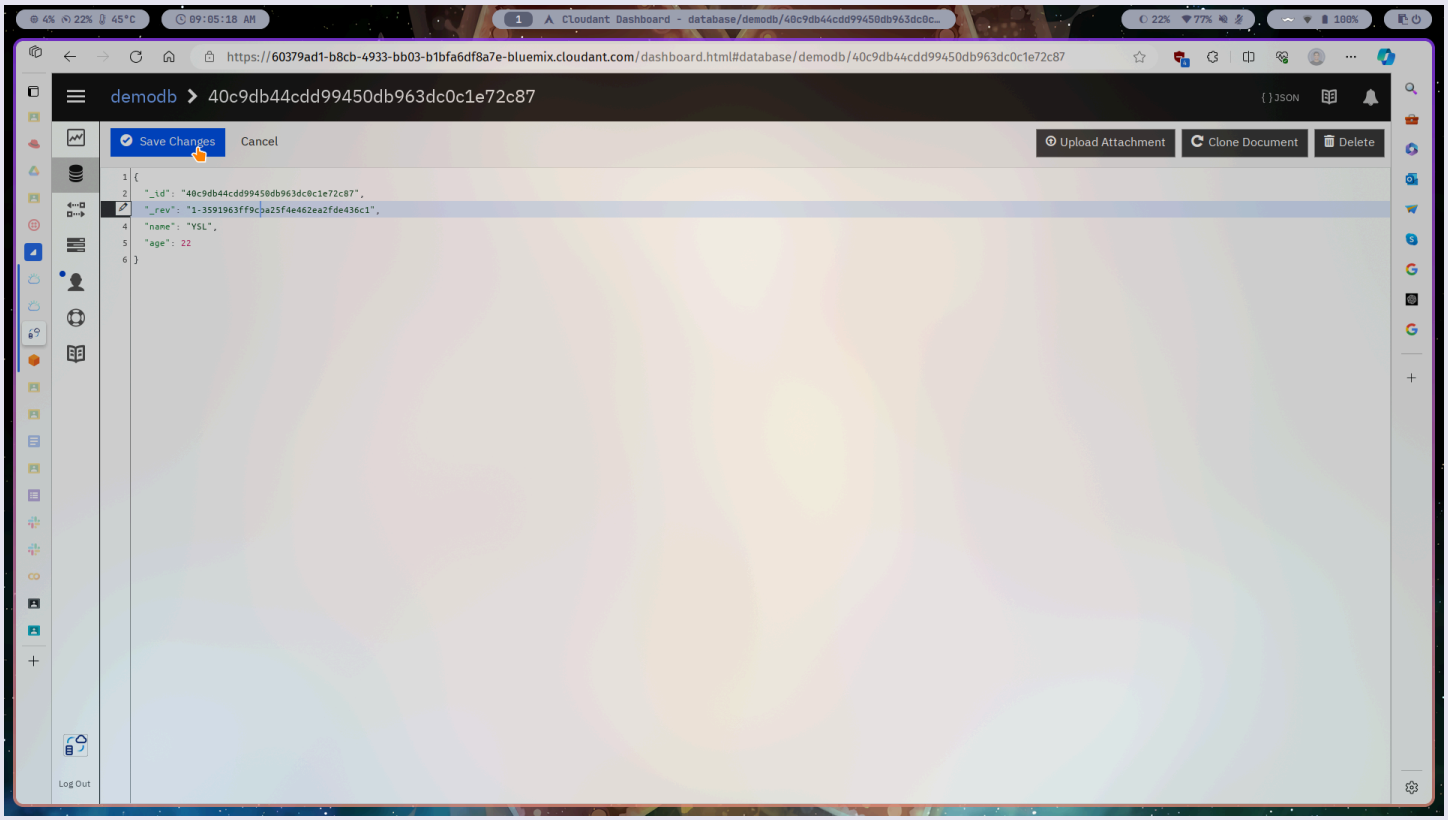
6. A revision ID is automatically generated which is used at many places, specifically, the first digit(s) states the number of times it is changed



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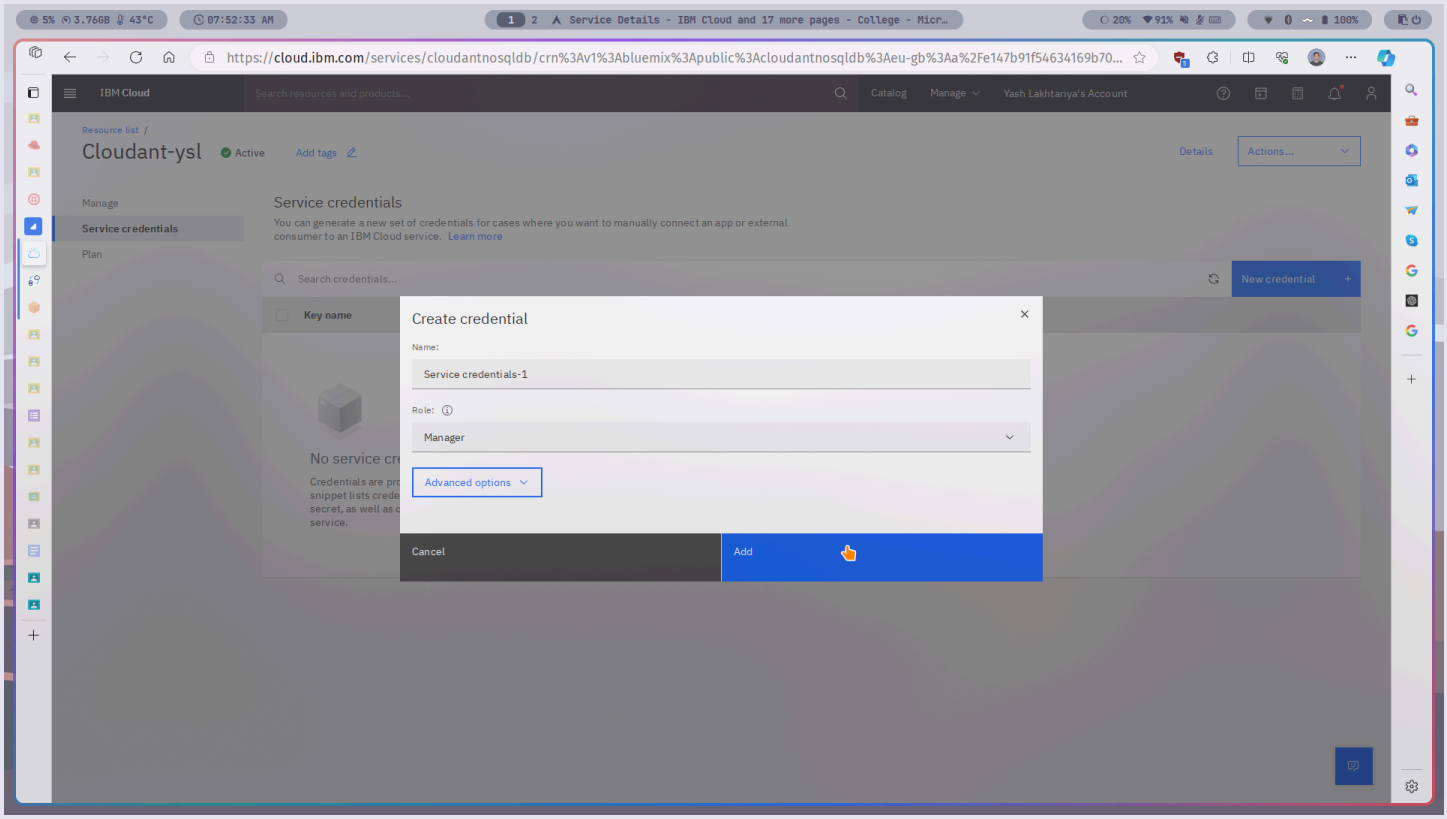
7. In IBM CLoudant service, now create credentials in Manage Credentials tab



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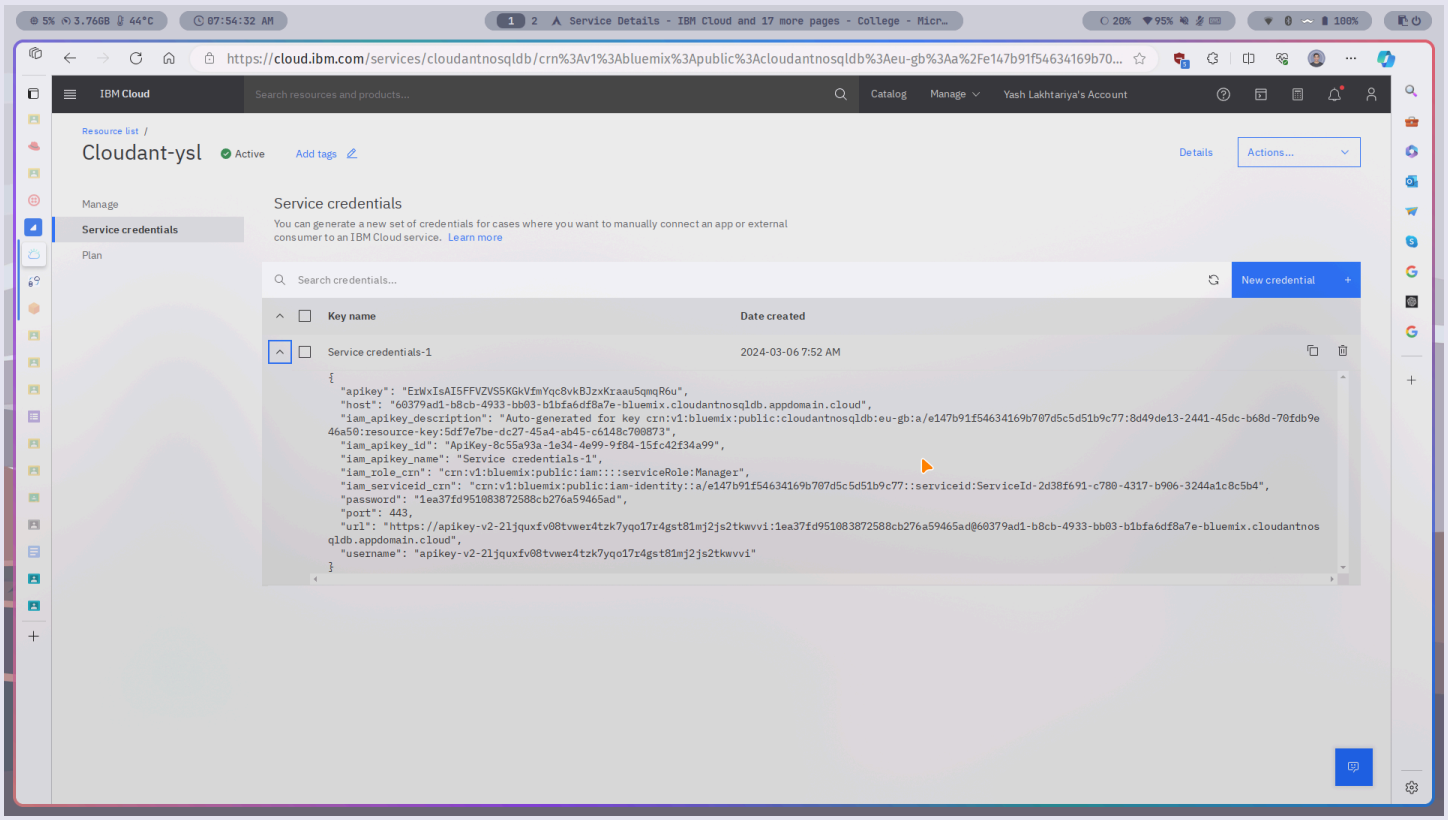
8. Check the credentials and copy the same, the URL with format username:password@host is mostly used to send requests via postman



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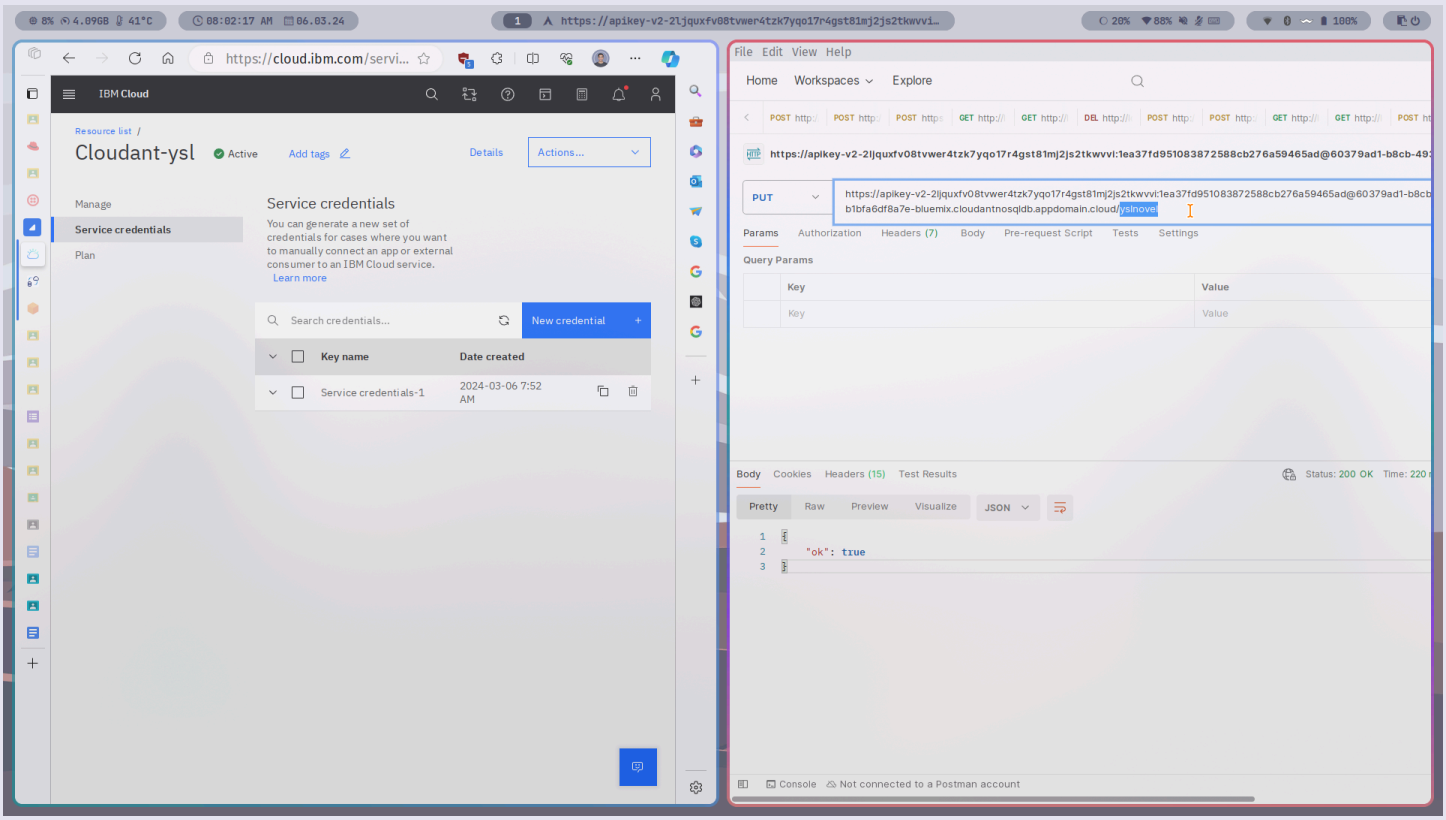
9. Now, using Postman application, send PUT request to the URL/databasename to create a new database



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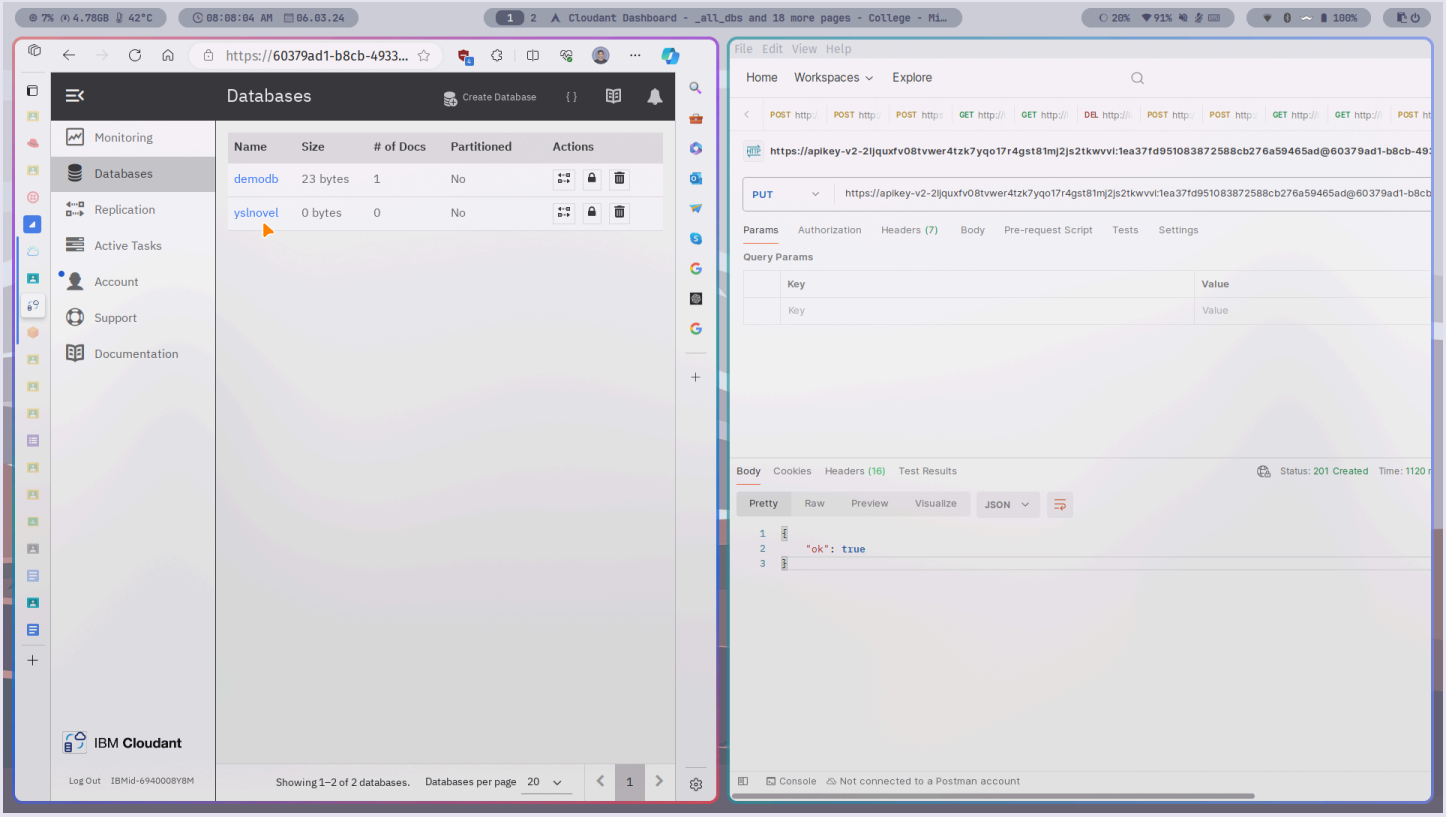
10. Check on the dashboard if the database is created successfully



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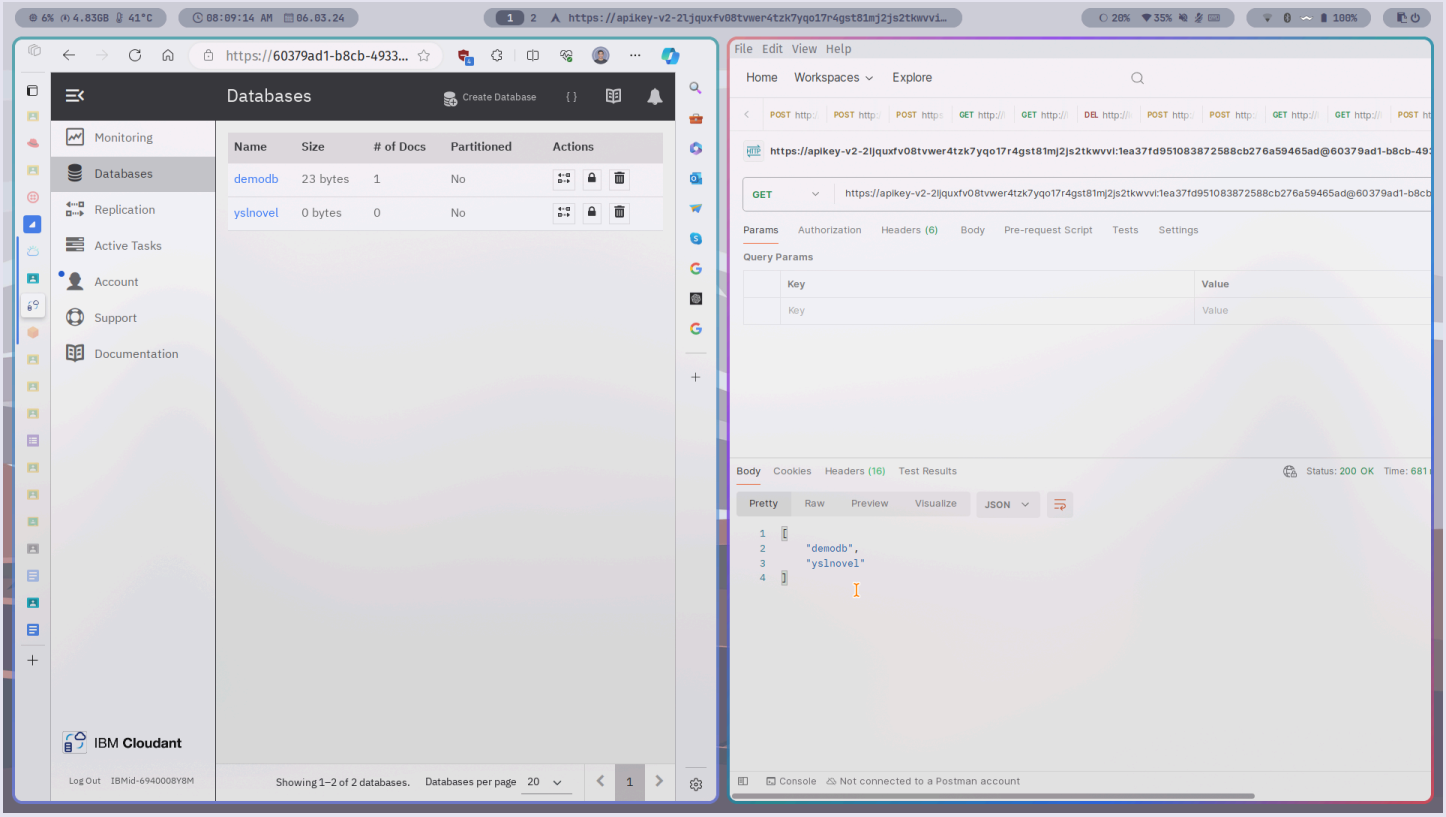
11. Now, make a GET request with URL/_all_dbs to get the list of existing databases



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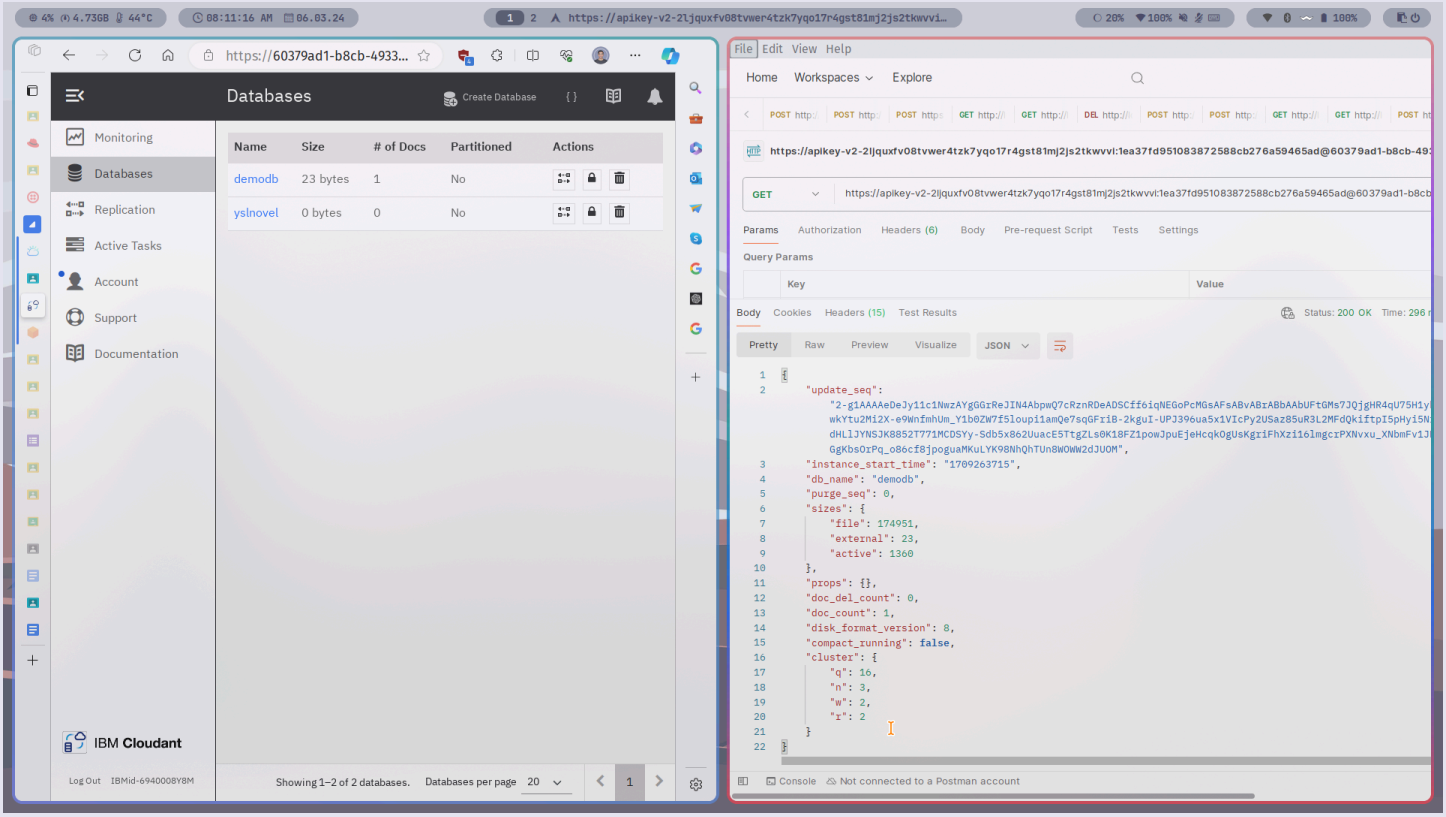
12. Now, make a GET request to the URL/database to get the specific database's details



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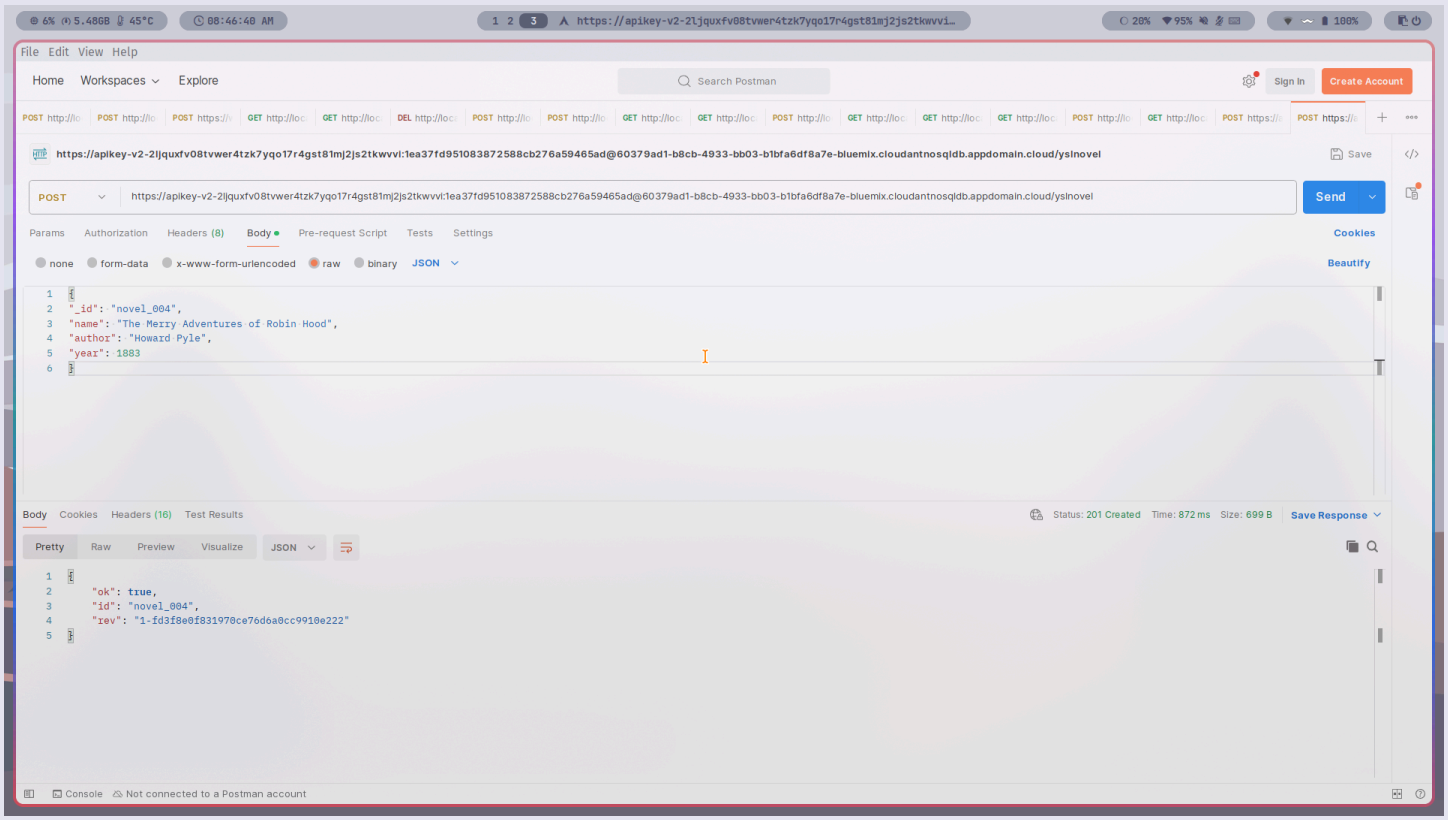
13. To add details, make a POST request to URL/database, with json details in body



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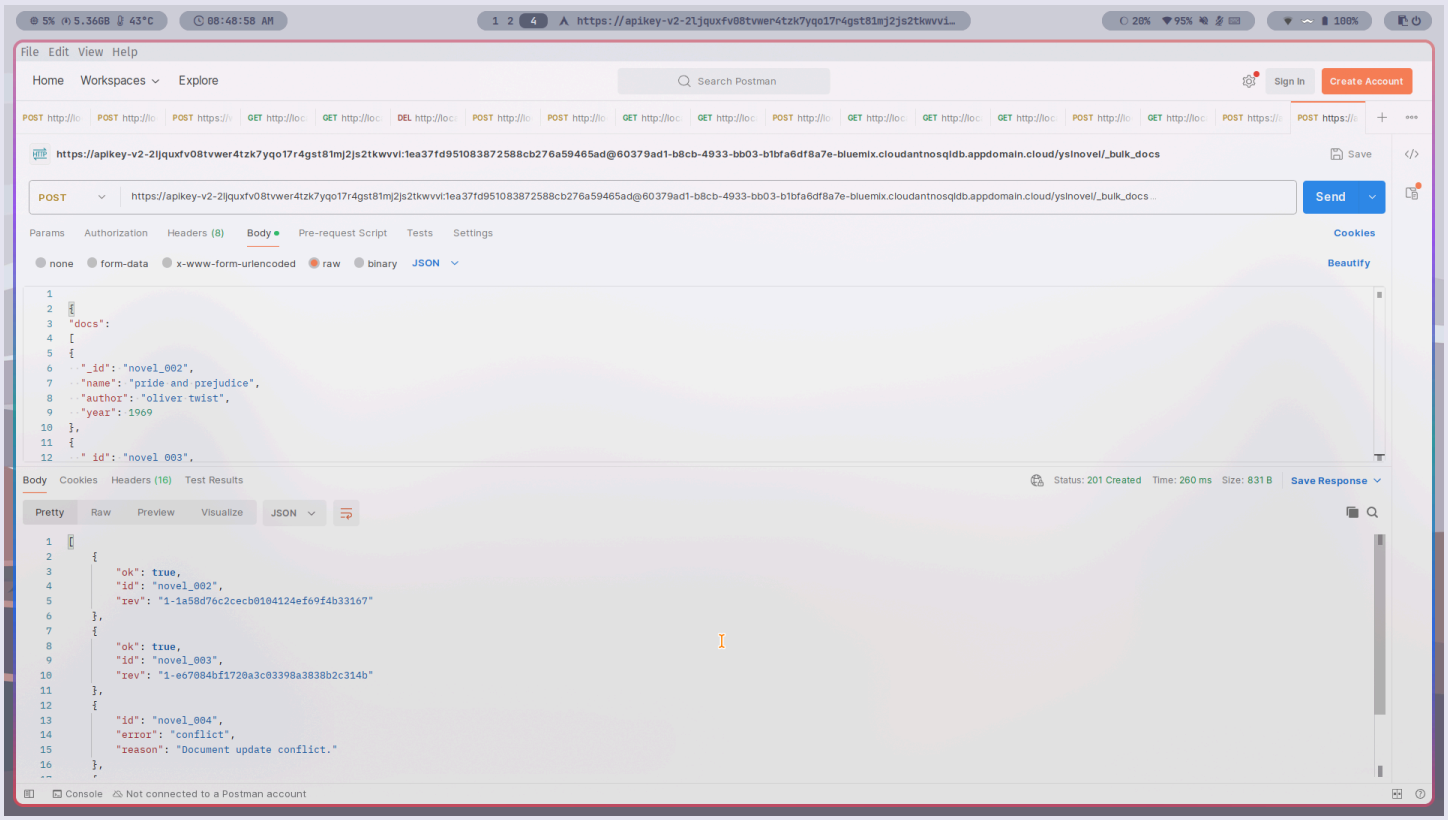
14. _bulk_docs can be added after database name for dealing with all docs in the database.



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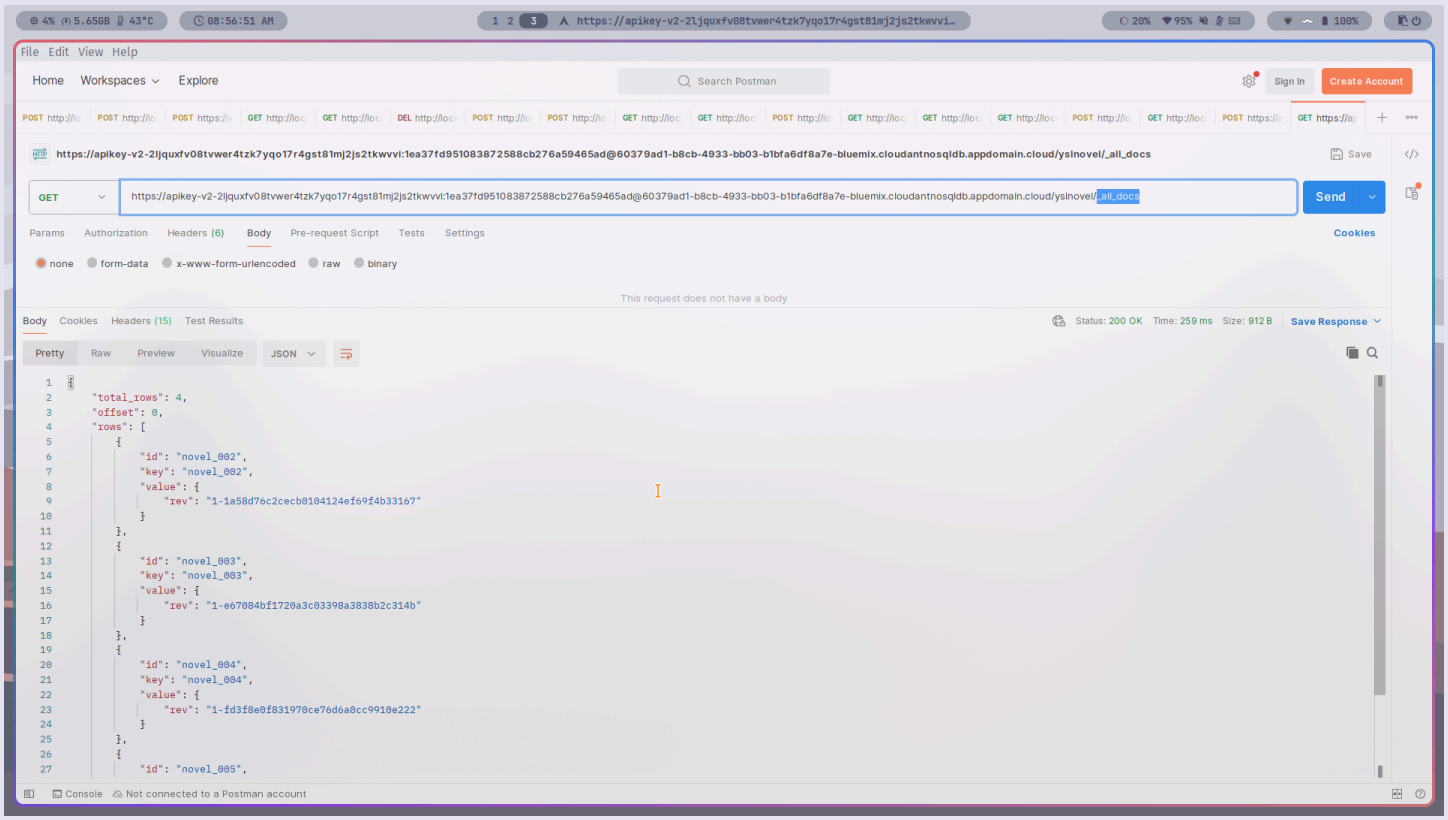
15. If GET request is sent to database/_all_docs then it returns the doc's details like ID and all without including the actual document



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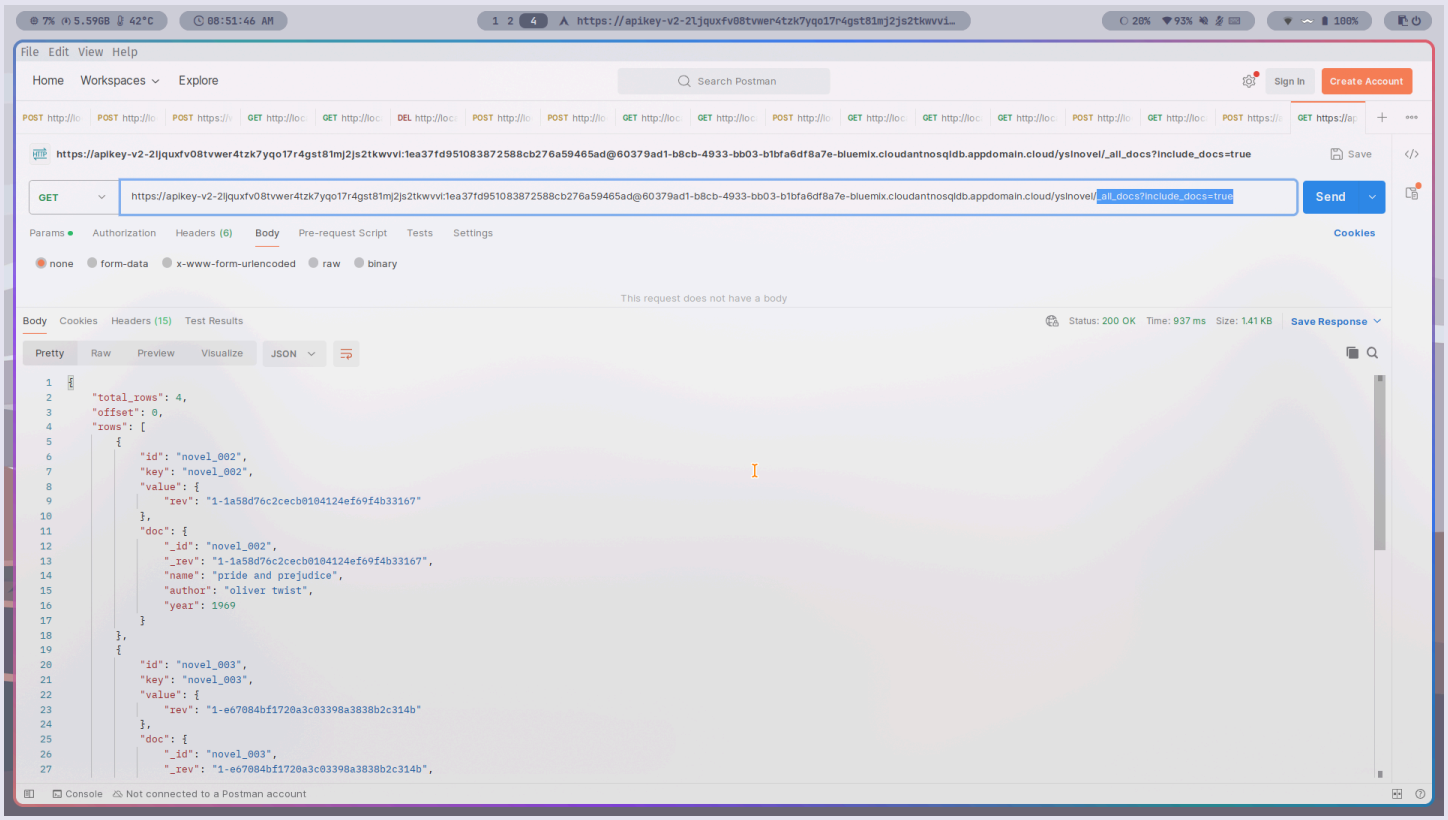
16. But, if include_docs=true is used as URN, then it also returns the actual document details



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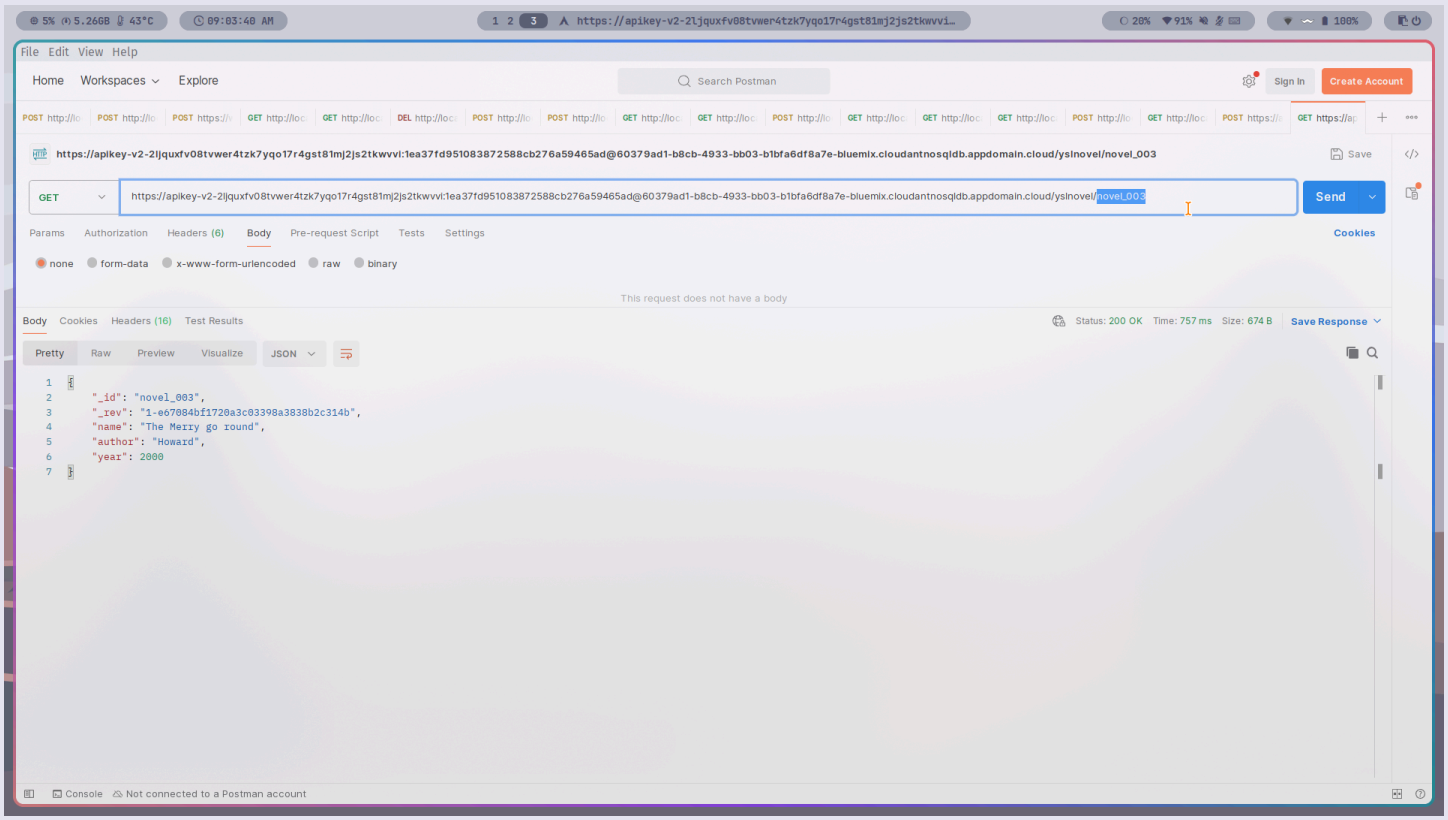
17. To get the specific document's details, enter its ID after URL/dbname/docID and make a GET request



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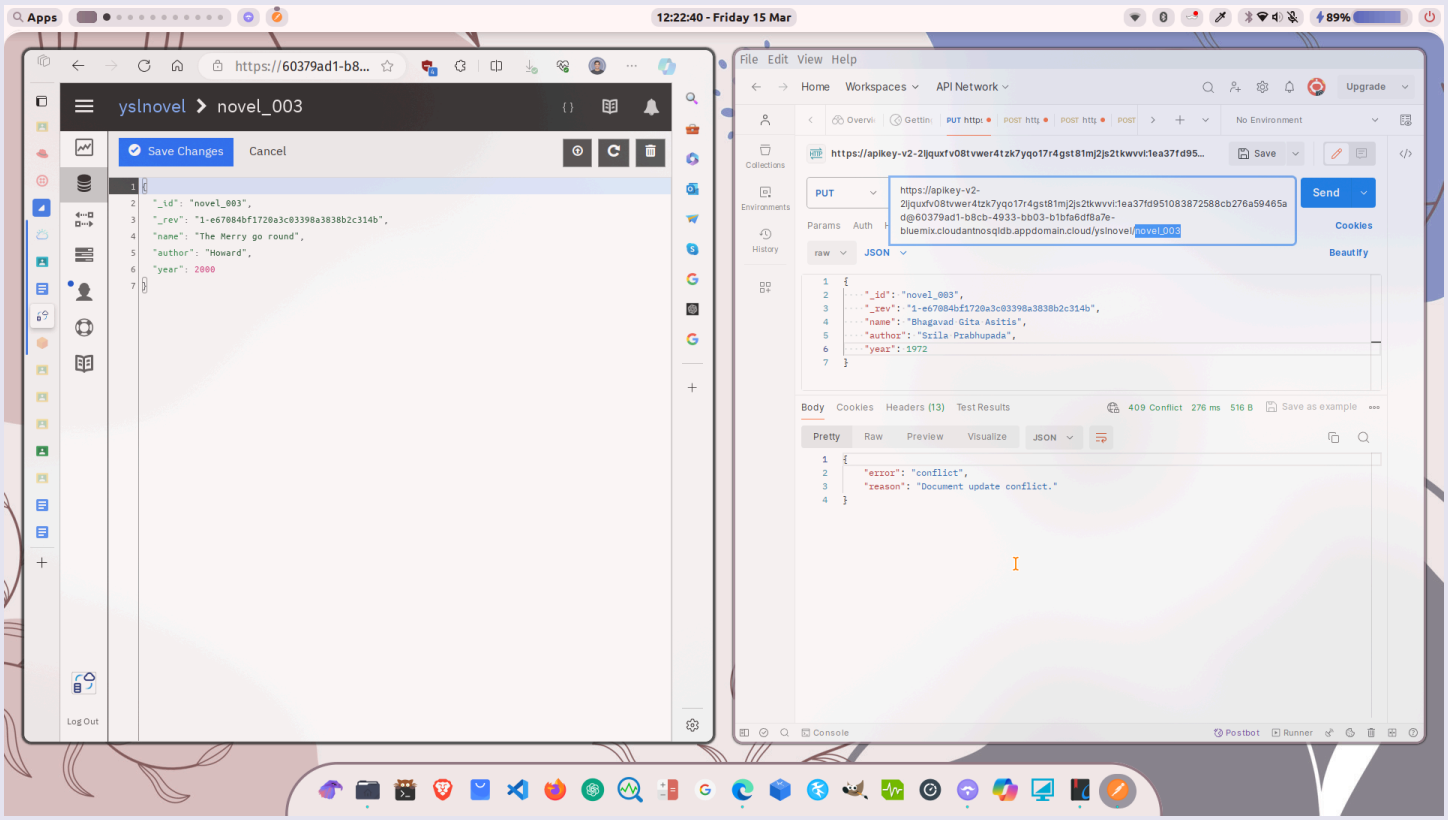
18. To update details, make a PUT request on same URL, but include previous revision ID in the json in body



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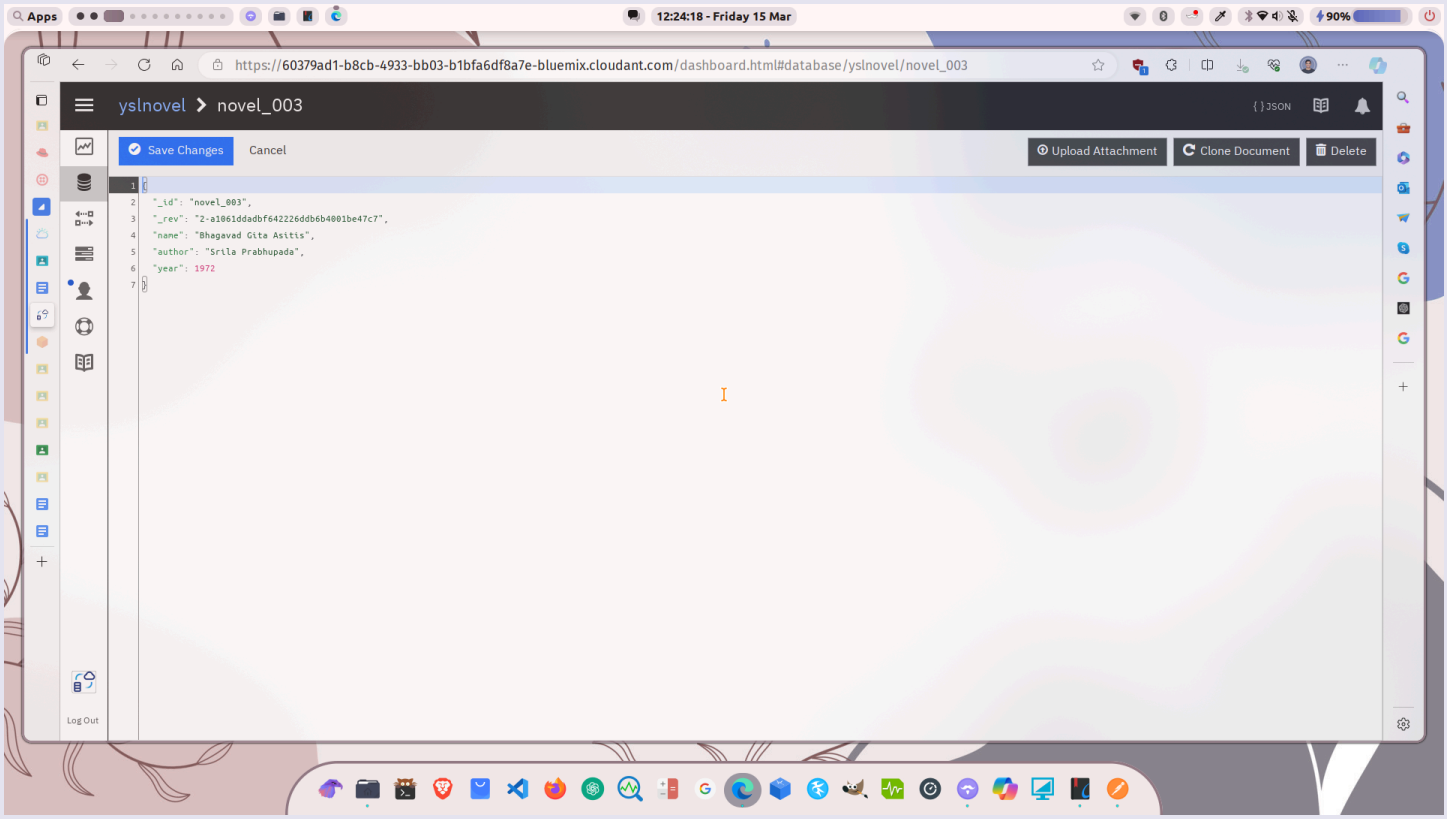
19. Now, the details will be updated in Cloudant database



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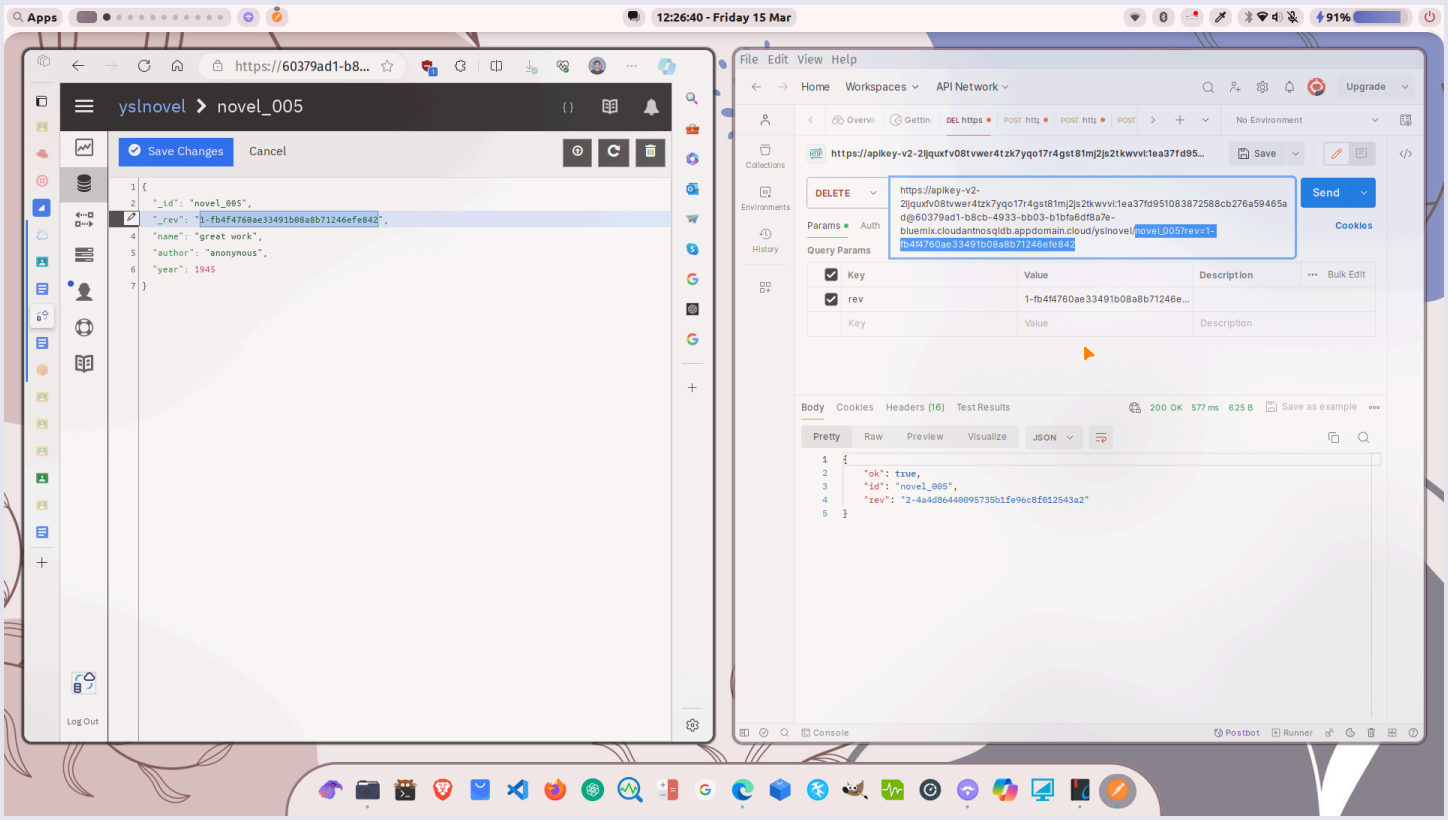
20. Now, to delete a record, same URL but with rev={revID} is required for DELETE request



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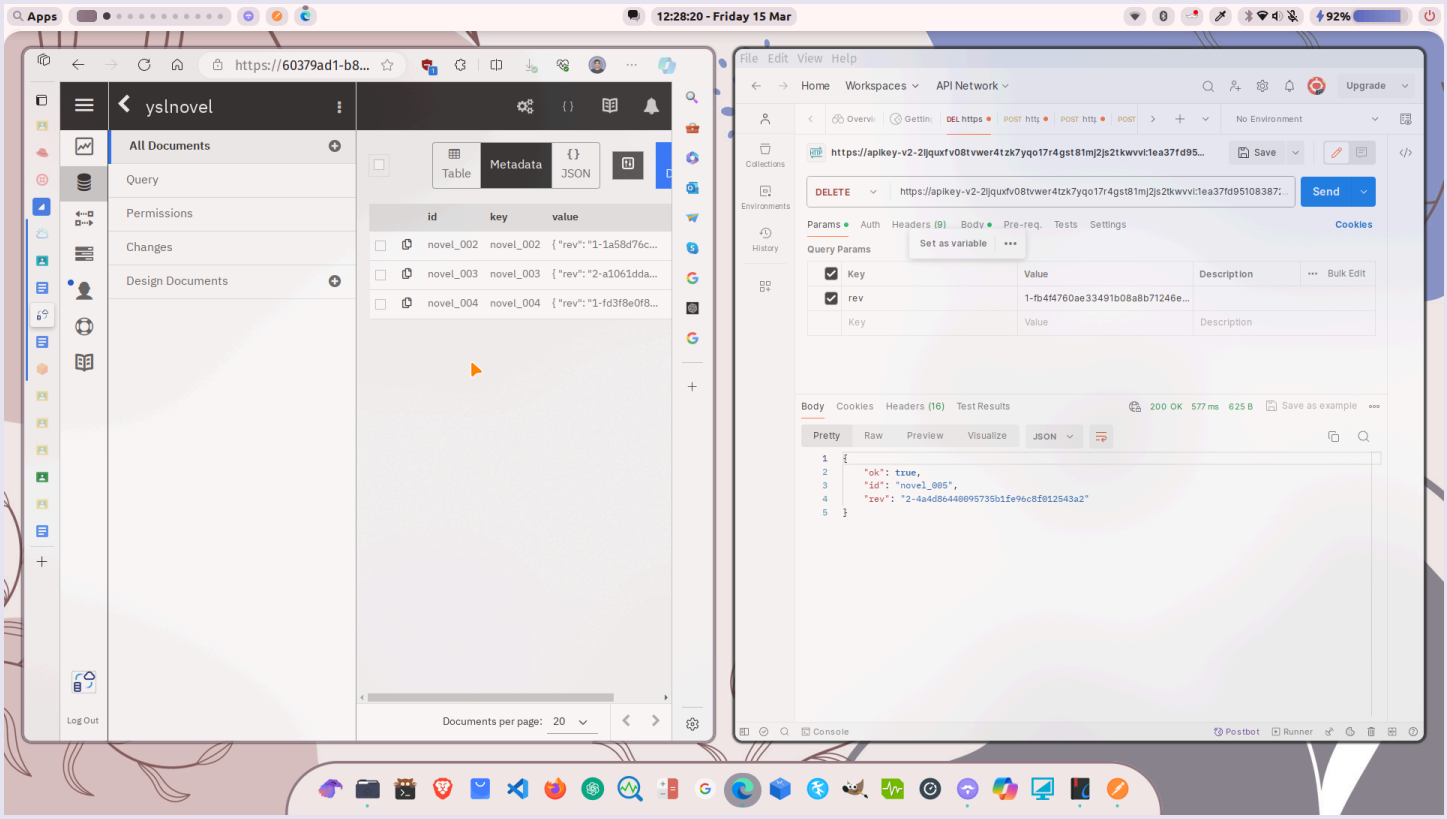
21. The document will be deleted now from the database



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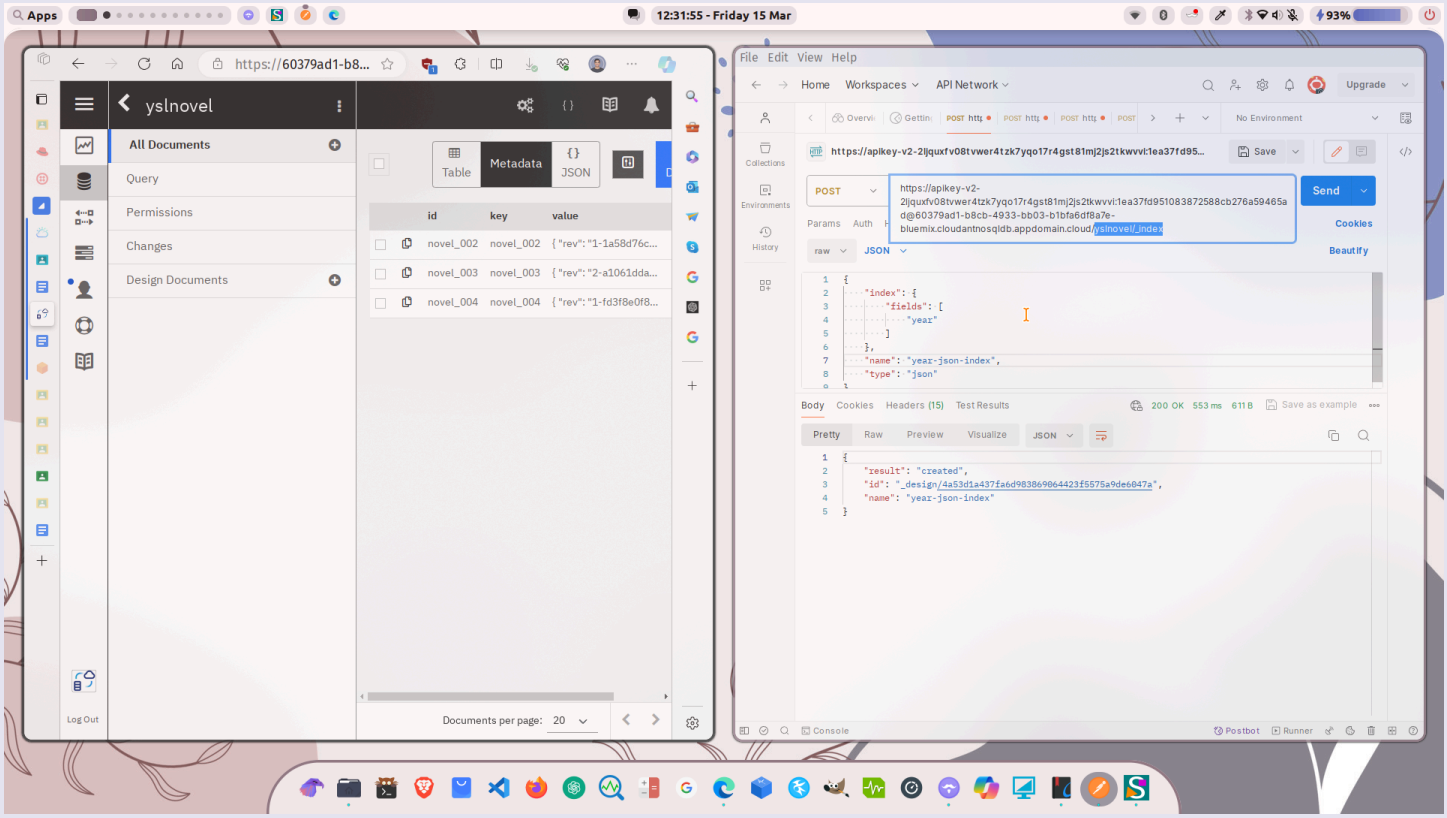
22. Here, for performing queries, we can create an index file for the same which includes the field(s) to perform query on, while the URI will be URL/dbname/_index and POST request should be made



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23. Now, for example if we want to filter data as per year, say year greater than 1864 and sort the data in ascending format, then the format of json body will below with URL/dbname/_find as URI with POST request :

```
{
    "selector": {
        "year": {
            "$gt": 1880
        }
    },
    "fields": [
        "_id",
        "name",
        "author",
        "year"
    ],
    "sort": [
        {
            "year": "asc"
        }
    ]
}
```

The index will also be visible on cloudant database

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