

**TY B.Tech. (CSE) – II [ 2022-23 ]**  
**5CS372 : Advanced Database System Lab.**

**Assignment No. 9**

**PRN: 2020BTECS00069**  
**Yashraj Patil**

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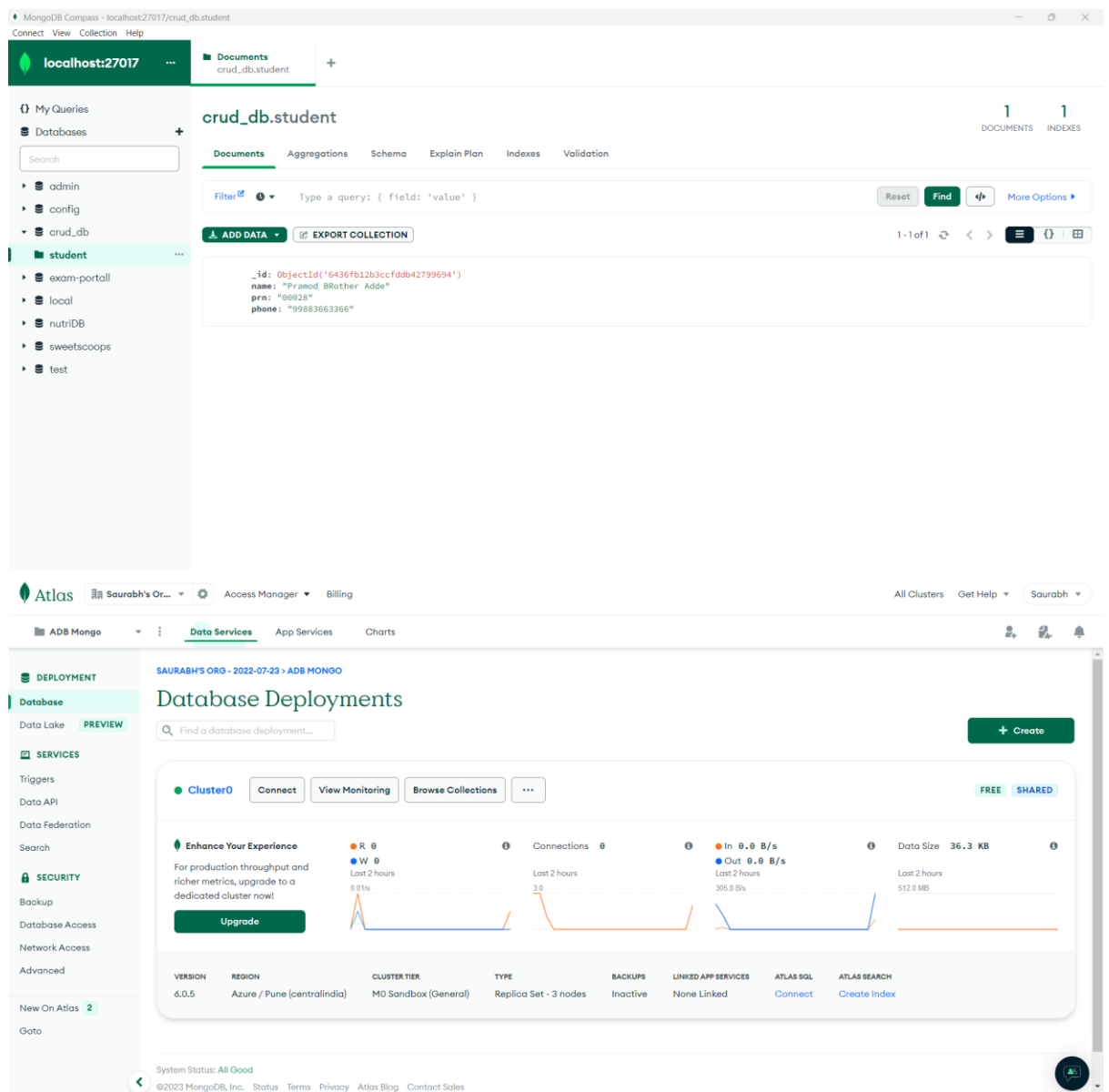
**Install & deploy the following cloud databases on windows platform :**  
**Write Python desktop Application to demonstrate the CRUD operation with above backend cloud databases.**

**A] MongoDB**

Install MongoDB On Windows

- Download the latest version of MongoDB from the official website:  
<https://www.mongodb.com/try/download/community>
- Run the installer and choose the "Complete" installation option.
- Accept the license agreement and choose the installation directory. The default directory is C:\Program Files\MongoDB\Server\{{version}}.
- Choose the options to install MongoDB as a Windows service and to start the service automatically.
- Click on "Install" and wait for the installation process to complete.
- Once the installation is complete, navigate to the MongoDB installation directory in a command prompt. For example, if you chose the default installation directory, you would run:
  - `cd C:\Program Files\MongoDB\Server\{{version}}\bin`
  - where {{version}} is the version of MongoDB you installed.
- To start the MongoDB server, run the following command:  
`mongod.exe`
- The MongoDB server should start running and output logs to the console. Keep the console window open while you use MongoDB.

- To interact with MongoDB, open another command prompt and navigate to the MongoDB installation directory's bin folder, as shown in step 6.
- Run the following command to start the MongoDB shell:
- Copy code
- mongo.exe
- You should now be able to use the MongoDB shell to interact with MongoDB.



Atlas

Saurabh's Or...

Access Manager

Billing

All Clusters

Get Help

Saurabh

ADB Mongo

Data Services

App Services

Charts

DEPLOYMENT

Database

Data Lake

PREVIEW

SERVICES

Triggers

Data API

Data Federation

Search

SECURITY

Backup

Database Access

Network Access

Advanced

Ooto

+ Create Database

Search Namespaces

crud\_db

student

crud\_db.student

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 282B TOTAL DOCUMENTS: 3 INDEXES TOTAL SIZE: 36KB

FindIndexesSchema Anti-PatternsAggregationSearch Indexes

VISUALIZE YOUR DATA

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyMore Options

\_id: ObjectId('64496a3b52890eee1b9c1fc7')

name: "Saurabh Khadsang"

prn: "2820BTEC509079"

phone: "9175486500"

\_id: ObjectId('6449701472ac45e388aae049')

name: "Shreyash Bhakre"

prn: "2820BTEC509071"

phone: "987654326"

\_id: ObjectId('6449703072ac45e388aae04a')

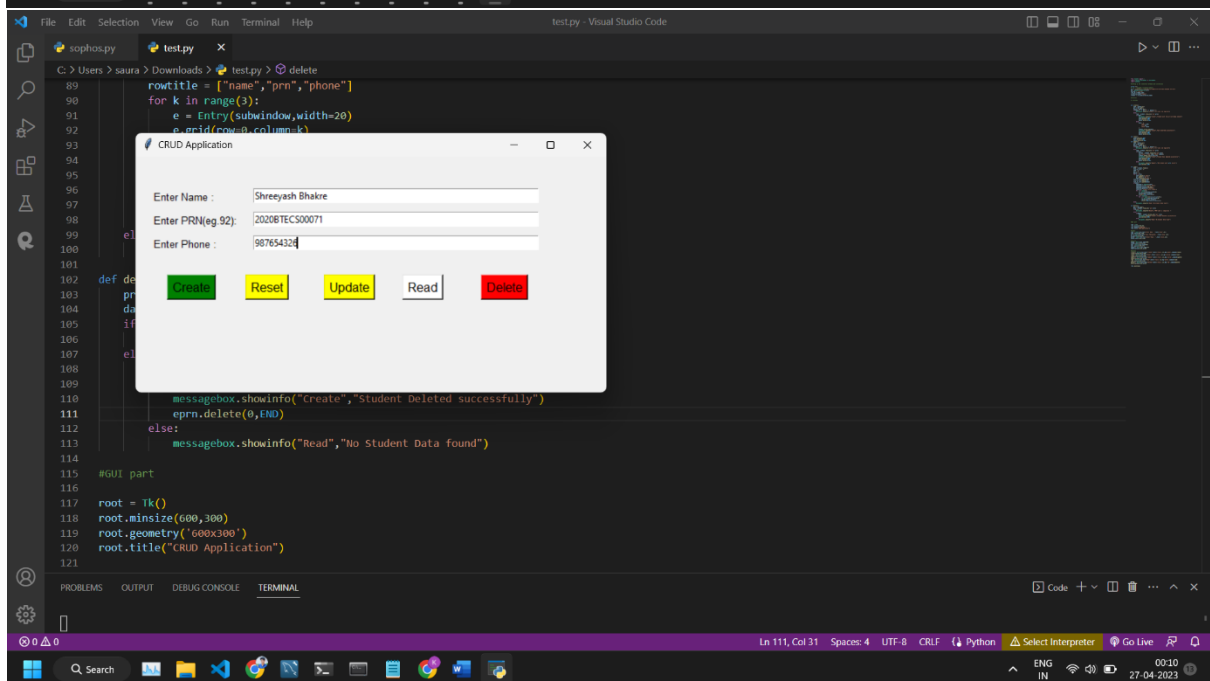
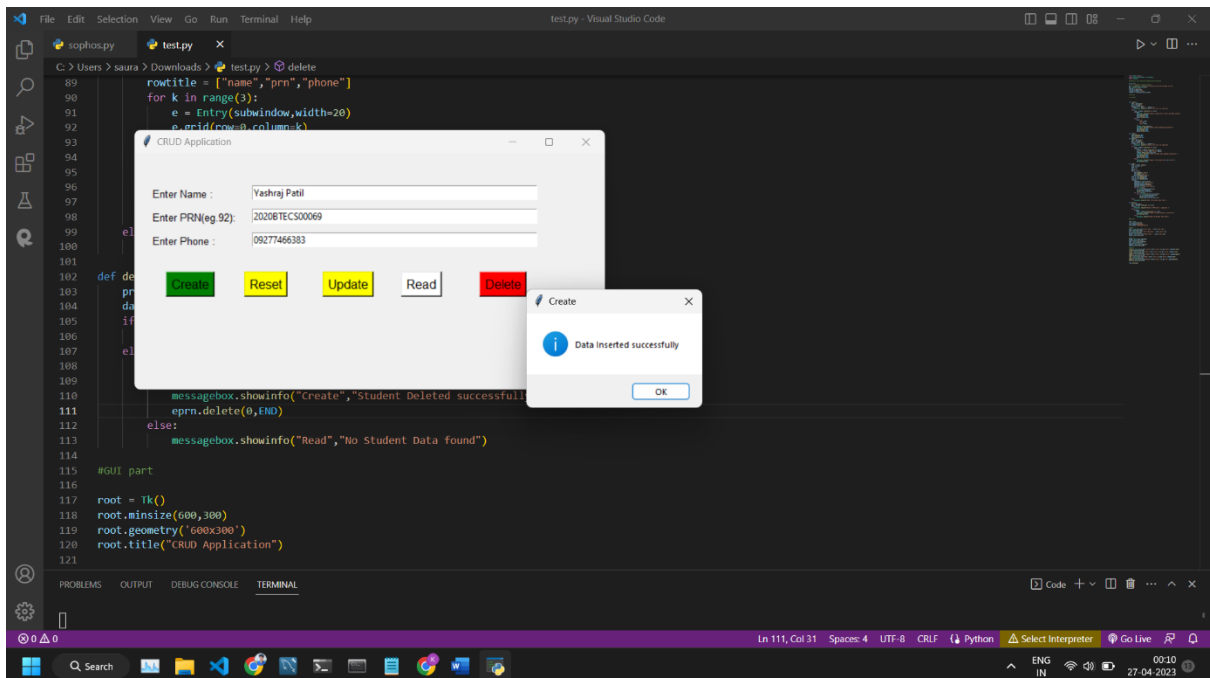
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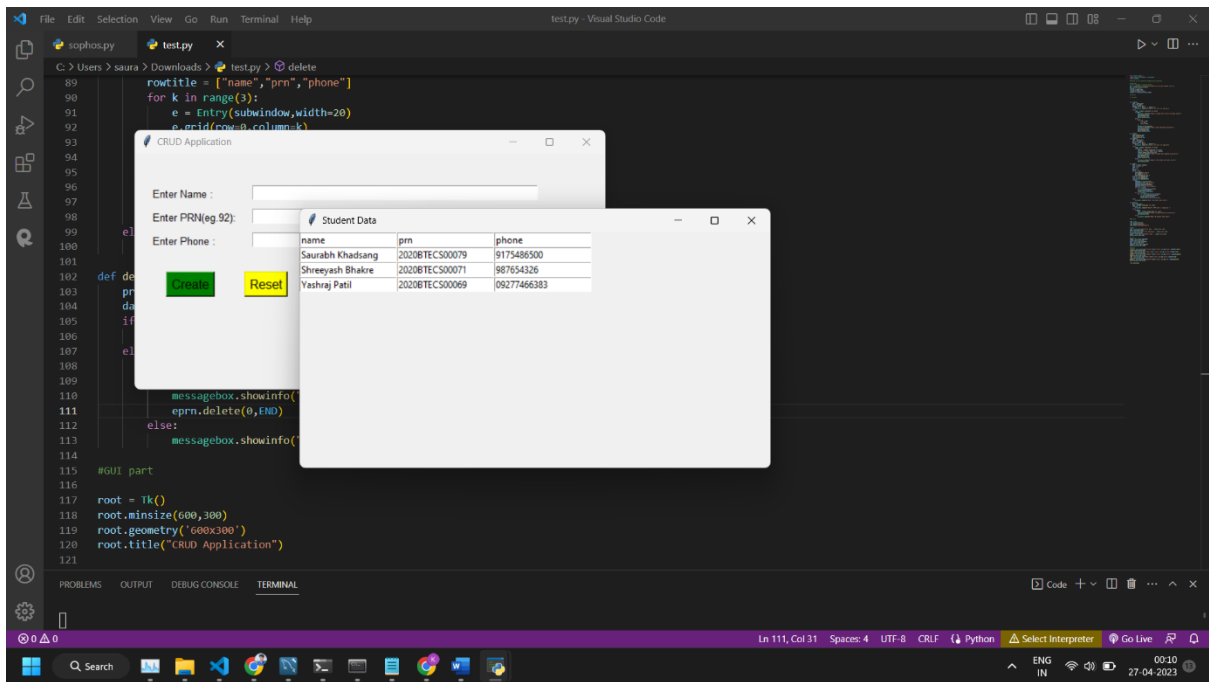
prn: "2820BTEC509069"

phone: "800774667038"

System Status: All Good

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## B] CassandraDB

### Install CassandraDB On Windows

- Download the latest version of Apache Cassandra from the official website: <https://cassandra.apache.org/download/>
- Extract the downloaded archive to a folder of your choice, e.g. C:\apache-cassandra-3.0.28.
- Add the C:\apache-cassandra-3.0.28\bin directory to your system's PATH environment variable. This will allow you to run Cassandra from any command prompt.
- Open command prompt and run the following command to start Cassandra: Wait for Cassandra to start up. You should see some output in the command prompt window indicating that Cassandra has started.
- Run the following command to start the Cassandra command-line interface (CLI):

You should now be able to use the CLI to interact with Cassandra.

- That's it! You now have Apache Cassandra installed and running on your Windows system.

```
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INFO [main] 2023-04-27 02:03:30.580 StorageService.java:1536 - JOINING: Finish joining ring
INFO [main] 2023-04-27 02:03:30.619 SecondaryIndexManager.java:512 - Executing pre-join tasks for: CFS(Keyspace='demo2', ColumnFamily='users')
INFO [main] 2023-04-27 02:03:30.669 StorageService.java:2452 - Node localhost/127.0.0.1 state jump to NORMAL
INFO [main] 2023-04-27 02:03:31.016 NativeTransportService.java:73 - Netty using Java NIO event loop
INFO [main] 2023-04-27 02:03:31.165 Server.java:158 - Using Netty Version: [netty-buffer=netty-buffer-4.0.44.Final.452812a, netty-codec=netty-codec-4.0.44.
Final.452812a, netty-codec-haproxy=netty-codec-haproxy-4.0.44.Final.452812a, netty-codec-http=netty-codec-http-4.0.44.Final.452812a, netty-codec-socks=netty
-codec-socks-4.0.44.Final.452812a, netty-common=netty-common-4.0.44.Final.452812a, netty-handler=netty-handler-4.0.44.Final.452812a, netty-tcnative=netty-tc
native-1.1.33.Fork26.142ecbb, netty-transport=netty-transport-4.0.44.Final.452812a, netty-transport-native-epoll=netty-transport-native-epoll-4.0.44.Final.4
52812a, netty-transport-rxtx=netty-transport-rxtx-4.0.44.Final.452812a, netty-transport-sctp=netty-transport-sctp-4.0.44.Final.452812a, netty-transport-udt=
netty-transport-udt-4.0.44.Final.452812a]
INFO [main] 2023-04-27 02:03:31.166 Server.java:159 - Starting listening for CQL clients on localhost/127.0.0.1:9042 (unencrypted)...
INFO [main] 2023-04-27 02:03:31.373 CassandraDaemon.java:564 - Not starting RPC server as requested. Use JMX (StorageService->startRPCServer()) or nodetool
(enablethrift) to start it
INFO [main] 2023-04-27 02:03:31.373 CassandraDaemon.java:650 - Startup complete
```

```
Anaconda Prompt - cqlsh
(base) C:\Users\saura>cd C:\apache-cassandra-3.11.10\bin


(base) C:\apache-cassandra-3.11.10\bin>cqlsh
File "C:\apache-cassandra-3.11.10\bin\cqlsh.py", line 146
except ImportError, e:
    ^^^^^^^^^^^^^^^^^
SyntaxError: multiple exception types must be parenthesized
(base) C:\apache-cassandra-3.11.10\bin> conda activate py2

(py2) C:\apache-cassandra-3.11.10\bin>C:\apache-cassandra-3.11.10\bin
'C:\apache-cassandra-3.11.10\bin' is not recognized as an internal or external command,
operable program or batch file.

(py2) C:\apache-cassandra-3.11.10\bin>cqlsh

WARNING: console codepage must be set to cp65001 to support utf-8 encoding on Windows platforms.
If you experience encoding problems, change your console codepage with 'chcp 65001' before starting cqlsh.

Connected to Test Cluster at 127.0.0.1:9042.
[cqlsh 5.0.1 | Cassandra 3.11.10 | CQL spec 3.4.4 | Native protocol v4]
Use HELP for help.
WARNING: pyreadline dependency missing. Install to enable tab completion.
cqlsh>
```

 Cassandra GUI

Create

Read

Update

Delete