**Assignment No. 10: Indexing**

**Perform following steps to analyze indexing**

1. File -> preferences -> Paths -> Binary Path -> select PostgreSQL 13 and add path C:\Program Files\PostgreSQL\14\bin\ -> save
2. create table test (first\_name varchar(20) not null, last\_name varchar(20) not null, company\_name varchar(50) not null, address varchar(50) not null, city varchar(50) not null);
3. Right Click on table test -> import
4. Import -> choose file name (us.500.csv) -> Delimiter -> , -> ok
5. Check data
6. Now perform following queries
   1. explain analyze select \* from test where first\_name = 'Bok';
   2. create index emp\_index on test(first\_name);
   3. explain analyze select \* from test where first\_name = 'Bok';
   4. create index emp\_hash\_index on test using hash(first\_name);
   5. explain analyze select \* from test where first\_name = 'Bok';
   6. select \* from information\_schema.tables where table\_name like '%index%';
   7. select \* from pg\_catalog.pg\_statio\_user\_indexes;
   8. select \* from pg\_catalog.pg\_stat\_user\_indexes;
   9. select ctid, \* from student;

Q. Write about Ordered Indices:

* Dense Index
* Sparse Index
* Multilevel Index
* Secondary Index