```
#include <stdio.h>
#include <stdlib.h>
#include "libpq-fe.h"

PGresult *res;

void do_exit(PGconn *conn) {

      PQfinish(conn);
      exit(1);
}


void ExecuteQuery(PGconn* conn,char* query){
    PQexec(conn, "set search_path to gsrtc;");
    res = PQexec(conn, query);
    if (PQresultStatus(res) != PGRES_TUPLES_OK) {
      fprintf(stderr, "Query failed: %s",PQerrorMessage(conn));
        do_exit(conn);
      }
      else{
            int rows = PQntuples(res);
            int ncols = PQnfields(res);
            for (int i=0; i<ncols; i++){
            char *name = PQfname(res, i);
            printf("%s ", name);
       }
       printf("\n");
       for(int i=0; i<rows; i++) {
            for(int j=0;j<ncols;j++){
                  printf("%s ",PQgetvalue(res, i, j));
            }
            printf("\n");
       }
      }
}


void ExecuteUpdate(PGconn* conn,char* command){
    PQexec(conn, "set search_path to gsrtc;");
    res = PQexec(conn, command);
    if (PQresultStatus(res) != PGRES_COMMAND_OK){
       fprintf(stderr, "%.6s failed: %s",command,PQerrorMessage(conn));
       do_exit(conn);
    }
    else{
       printf("successful\n");
```

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    }
}


int main()
{
  const char *conninfo = "dbname=201501140 user=201501140
password=201501140 hostaddr=10.100.71.21 port=5432";
  PGconn *conn = PQconnectdb(conninfo);
      if (PQstatus(conn) != CONNECTION_OK){
      fprintf(stderr, "Connection to database failed:
%s\n",PQerrorMessage(conn));
      do_exit(conn);
      }

      char *user = PQuser(conn);
      char *db_name = PQdb(conn);

      printf("User: %s\n", user);
      printf("Database name: %s\n", db_name);

      while(1){
       char command[1000];
       printf("Enter Command in a single line\n");
       fgets (command, 1000, stdin);
       if(command[0]=='S' || command[0]=='s'){
             ExecuteQuery(conn,command);
       }
       else{
             ExecuteUpdate(conn,command);
       }
       PQclear(res);
      }
      PQfinish(conn);


      return 0;
}
```