

QUIZ 2 – C Revision

- You are given a task to keep track of number of queries running in database management system. Below information regarding queries need to be kept in C structure.

```
struct query {  
    int query_id;    // unique id  
    char* query_text;    // actual query text  
    int status;    // submitted, running, finished  
    int time_elapsed;    // time in microsec it took to run the query  
}
```

Q1.

- Create an array of structure for struct query defined previously using dynamic memory allocation and to provide the following functions. For each of functionality you can use user menu selection
 - New query is submitted by a SQL developer i.e. new array entry is added with status as submitted
 - Query has started running so update to running
 - Query is running so periodically need to update time_elapsed
 - Query has finished running so update the status as finished and remove the entry from array

Q2

- Functionality of Problem 2 is same as Problem1
 - New query is submitted by a SQL developer i.e. new array entry is added with status as submitted
 - Query has started running so update to running
 - Query is running so periodically need to update time_elapsed
 - Query has finished running so update the status as finished and remove the entry from array
- But Problem 2 should be implemented using linked list instead of array