**Hackathon – Foundation**

**Duration: 2 hours**

**Request to follow the instruction after the completion of the hackathon.**

You should create the repository by uploading the files and give the reporter access to your respective mentor and to Janakiram.

**Problem statement (Logic building & Algorithm)**

After getting selected in an MNC, Leena has become a celebrity at her university, and her Facebook profile is full of friend requests. She accepted all the requests. Now there are frequent request and disturbances coming from multiple unknow request, she would want to remove some friends. Since she knows the popularity of each of the friend she has, she wanted to build an algorithm to delete unpopular friends. Help her to get a suitable algorithm.

**Problem statement (Data Structure)**

We need to store 5 names using single linked list and implement a selection sort algorithm for displaying the 5 names which is stored in the linked list.

**MySQL Database Problem statement**

News-app is used to explore and read the news. It is also used to manage news in your watchlist to read later.

Create the necessary DB schema (MySQL) including tables, relationships and add sample data into each table.

Table User:

UserID: varchar(50), not null, primary key

Password: varchar(50), not null

Table UserProfile:

UserID: varchar(50), not null, foreign key references User(UserID)

FirstName: varchar(200), not null

LastName: varchar(200), not null

Contact: varchar(200)

Email: varchar(200)

CreatedAt: datetime(6)

Table News:

NewsID: int, not null, primary key

Title: varchar(200), not null

Content: varchar(200), not null

PublishedAt: datetime(6), not null

CreatedBy: varchar(200), not null, foreign key references UserProfile(UserID)

Url: varchar(200)

UrlToImage: varchar(200)

Table Reminders:

ReminderID: int, not null, primary key

Schedule: datetime(6), not null

NewsID: int, not null, foreign key references News(NewsID)

Insert the below data:

------------------------------------

-- Data in User table

UserID Password

-------- ---------------

Jack pass@123

John something#121

Kevin test@123

-- Data in UserProfile table

UserID FirstName LastName Contact Email CreatedAt

------ --------- -------- ----------- ---------------- ---------------------

Jack Jackson James 8899776655 jack@ymail.com 2019-12-07 00:00:00.000

John Johnson Dsouza 7869543210 john@gmail.com 2019-12-25 00:00:00.000

Kevin Kevin Lloyd 9878685748 kevin@ymail.com 2019-12-10 00:00:00.000

-- Data in News table

NewsID Title content PublishedAt CreatedBy Url UrlToImage

-------- -------------------------------------------- ------------------------------------------------------- ----------------------- --------- ---- ----------

101 IT Industry in 2020 IT industry was facing disruptive changes in 2019. It is e 2019-12-01 00:00:00.000 Jack null null

102 2020 FIFA U-17 Women World Cup The tournament will be held in India between 2 and 21 Novemb 2019-12-05 00:00:00.000 Jack null null

103 chandrayyan2-spacecraft The lander of chandrayaan2 was named Vikram after Dr Vikram A 2019-12-05 00:00:00.000 John null null

104 NEFT transactions to be available 24x7 Bank customers will be able to transfer funds through NEFT 2019-12-07 00:00:00.000 John null null

-- Data in Reminders table

ReminderID Schedule NewsID

---------- ------------------------ --------

1 2019-12-04 00:00:00.000 101

2 2019-12-10 00:00:00.000 102

3 2019-12-10 00:00:00.000 104

Queries to be performed:

-------------------------------------

Retreive all the user profiles joined on or after 10-Dec-2019.

Retreive the details of user 'Jack' along with all the news created by him.

Retreive all details of the user who created the News with newsId=103.

Retreive the details of all the users who have not added any news yet.

Retreive the newsid and title of all the news having some reminder.

Retreive the total number of news added by each user.

Update the contact number of userId='John' to '9192939495'.

Update the title of the newsId=101 to 'IT industry growth can be seen in 2020'.

Remove all the reminders belonging to the news created by Jack.