Lebanese University
Faculty of Science
Section I

I3302 - INFO 319
Server-side Web Development
Final Exam - Session 2

BS - Computer Science
Duration : 120 minutes
July 21, 2018

─── **Attention** ───

Please, pay attention to the fact that :
— there will be **3** points dedicated to **clean code**, **good writing** and to **your added comments**.
— you should use prepared statement.

We are interested in this exam to implement an application using PHP and MySQL that helps an Internet Service Provider (`ISP`) to monitor the cutomers payments for their Internet subscription fees. The application contains only 2 tables :
— `user` : contains the list of users. Each user is identified by an <u>`user_id`</u>, `username`, `full_name` and a `monthlyfee` field containing the amount to be paid each month. For simplicity, we assume that the `monthlyfee` field never changes for any user.
— `payment` : contains the list of users monthly payments. Each payment corresponds to a monthly payment and is identified by an <u>`payment_id`</u>, `pay_date`, `user_id`, `amount` (which is equal to the user `monthlyfee` payment), `which_month` which consists of a string denoting the month for which the user is paying the subscription fees. (check *appendix 1* for further details).

Question : `index.php` (*50 pts*)

Create the script `index.php` making sure that the page is its own action that allows the ISP to perform the following tasks :

ID	Full name	UserName	Payment
*3	Carlos Naim	carlosm	55000 L.L. (1 month)
2	Jawad Kattar	jawadk	150000 L.L. (3 months)
1	Maya Kattoua	mayak	40000 L.L. (1 month)

1. (*5 pts*) list all the users in the database in ascending order by `Full_name`.

2. (*5 pts*) For the new users (those who do not have any records yet in the `Payment` table), add a `*` in front of their `ID`.

3. (*15 pts*) In the `Payment` column, show the total amount to be paid (the monthly payment multiplied by the number of months that have not been paid yet).
   In the above screenshot :
   — Carlos Naim is a new user, he does not have any record in the `Payment`, thus he has to pay only for the current month.
   — Jawd Kattar has not been paying for the past 3 months (his last payment was for April).
   — Maya Kattoua has to pay only July's fees.

4. (*25 pts*)

Make the `Full_name` clickable that loads on the same `index.php` page, a new script that allows the ISP to make the payments. In the above screenshot, Jawad Kattar has to pay for the months : May, June and July since his last payment was for April.
   Payment should follow chronological order (any month cannot be paid for before the past months). In the above screenshot, Jawad Kattar cannot pay months June or July before paying May's fees. **Only the month to be paid can be clicked**.
   Once clicking on the month button, (in the above screenshot, on the `05-2018` button), a new record should be inserted for Jawad Kattar in the `Payment` table) :

payment_id	pay_date	user_id	amount	which_month
9	2018-07-21	2	50000	05-2018

Good luck !!

──── Appendix 1 ────

Table : User

user_id	username	full_name	monthlyfee
1	mayak	Maya Kattoua	40000
2	jawadk	Jawad Kattar	50000
3	carlosm	Carlos Naim	55000

Table : Payment

payment_id	pay_date	user_id	amount	which_month
1	2018-01-01	1	40000	01-2018
2	2018-02-01	1	40000	02-2018
3	2018-03-02	1	40000	03-2018
4	2018-04-01	1	40000	04-2018
5	2018-05-02	1	40000	05-2018
6	2018-06-01	1	40000	06-2018
7	2018-03-01	2	50000	03-2018
8	2018-04-01	2	50000	04-2018