

**DSCI304/504 TEST2**  
**Insert/Update/Delete Data and Subqueries**  
**October 15, 2020**

Print your name: \_\_\_\_\_

Based on the database DBEx1 consisting the following three tables:

**TABLE Employees:**

<u>LName</u>	<u>IDN</u>	<u>Salary</u>	<u>Deduction</u>
Peter	1	1000.00	10.00
Mary	12	2000.00	0.00
Tony	22	4000.00	32.00
Mike	17	4000.00	10.00
John	93	NULL	NULL

Meaning of each column: LName = last name of the IDN; IDN = the Identification Number of the LName; Salary = the salary of the IDN; and Deduction = the deduction from each salary.

**TABLE IRAs:**

IDN	IRA_Acct	Balance
1	A1	100.00
22	A2	200.00
22	A3	400.00
93	A4	500.00

Meaning of each column: IDN = the Identification Number (IDN) referring to the IDN in the table employees; IRA\_Acct = account number of the IDN; and Balance = the balance of the IRA\_Acct.

**TABLE AddressCity:**

IDN	CompanyCity	HomeCity
1	Saint Louis	Saint Louis
12	Saint Louis	Chesterfield
22	Chesterfield	Saint Louis
93	Chesterfield	Chesterfield
17	Fenton	Fenton

Meaning of each column: IDN = the Identification Number (IDN) referring to the IDN in the table employees; CompanyCity = the city name of the working address of the IDN; HomeCity = the city name of the living address of the IDN.

We may assume that each of the above tables contains thousands of rows.

Based on the aforementioned database **DBEx1** consisting of tables **Employees**, **IRAs**, and **AddressCity**, write each of the following SQL query statement:

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- [1] Write a query to create a table named Table3 containing the records of those accounts with balance at most \$350. **(7 pts)**
  
- [2] Write a query to insert the records of all IRA accounts (with balance between \$360 and \$600) into Table3. **(8 pts)**
  
- [3] Write an update statement to add \$20 to all IRA accounts in Table3 with less than \$400 balance. **(8 pts)**
  
- [4] Write a delete statement to delete the records in table3 with balance above \$250. **(7 pts)**
  
- [5] Write a query to find the records of all employees in the Employees table with salary higher than the average salary. **(10 pts)**
  
- [6] Write a query to find the records of all employees in the Employees table with the highest salary. **(10 pts)**

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- [7] Each employee has a total number of all IRA accounts and a total amount of IRA balance. Write a query to find the total number of all IRA accounts and a total amount of IRA balance for each IDN. **(10 pts)**
- [8] Use [7] to write a query to find the LName, IDN, the total number of all IRA accounts, and the total amount of IRA balance of the employee/employees with the largest total amount of IRA balance among all employees. **(15 pts)**
- [9] Each city has a total salary of all employees who live in the city. Write a query to find the total salary of all employees who live in the city for each HomeCity. Must have: HomeCity and the total salary of all employees who live in the city. **(10 pts)**
- [10] Use [9] to write a query to find the city name/names with the highest total salary among all cities. **(15 pts)**  
Must have: HomeCity and the total salary of all employees who live in the city.