**Lab 2: Action query – Alter table**

We use the StudentManage database the lab 1

* Department (DID, DName, Year)
* Student (SID, Name, Birthday, DID)
* Courses (CID, CName, Credit, DID)
* Condition (CID, PreCID)
* Results (SID, CID, score)

1. **Insert query**

Enter as much data as possible (at least 5 rows of data for each table)

* Department table

|  |  |  |
| --- | --- | --- |
| **DID** | **Dname** | **Year** |
| IT | Information Technology | 2012 |
| ET | Electronic Technology | 1997 |
| BT | Biotechnology | 1997 |
| FL | Foreign language | 2000 |
| CT | Chemical Technology | 2011 |

* Student

|  |  |  |  |
| --- | --- | --- | --- |
| **SID** | **Name** | **Birthday** | **DID** |
| S01 | Phước Trần | 1990-02-24 | IT |
| S02 | Timothy | 2000-12-12 | IT |
| S03 | Kaily | 2001-10-01 | ET |
| S04 | Tâm Nguyễn | 1998-12-20 | ET |
| S05 | Lee Nguyễn | 1999-02-28 | BT |

* Courses

|  |  |  |  |
| --- | --- | --- | --- |
| **CID** | **CName** | **Credit** | **DID** |
| OOP | Object oriented Programming | 4 | IT |
| PM | Programming method | 4 | IT |
| DBS | Database system | 4 | IT |
| SE | Software engineering | 4 | IT |
| CN | Computer network | 3 | IT |

* Condition

|  |  |
| --- | --- |
| **CID** | **PreCID** |
| OOP | PM |
| DBS | PM |
| DBS | OOP |
| SE | OOP |
| SE | DBS |

* Results

|  |  |  |
| --- | --- | --- |
| **SID** | **CID** | **Score** |
| S01 | PM | 9.5 |
| S01 | OOP | 10 |
| S02 | PM | 4.5 |
| S02 | DBS | 6.0 |
| S03 | DBS | 8.0 |

1. **Update - Delete querey**
   1. Change birthday of the Student having SID “S01” to “1999-02-20”
   2. Increase 1 point for student with code “S02” studying subject “PM”
   3. Delete the data rows in the Results table with scores < 5
2. **Alter table**
   1. Add Phone column with data type as int to the Student table
   2. Change data type for Phone column of Student table from int to varchar
   3. Add default value for Phone column of “None”
   4. Add a primary key constraint to the Results table, which includes 2 columns: SID and CID. Note the not null error.
   5. Add foreign key constraint to Results table:
      1. The SID must exist in the Student table
      2. The CID must exist in the Courses table
   6. Additional constraints:
      1. Score in the Results table must be >= 0 and <= 10
      2. Credit in the Course table must be >= 1 and <= 12
      3. Course names in the Courses table must be unique.
   7. Remove the Phone column from the Student table
   8. Remove Constraint: “Credit in the Course table must be >= 1 and <= 12