1. Create Aptech database. In Aptech database create a class named Classes

```
CREATE DATABASE Aptech
Go
CREATE TABLE Classes
(
    ClassName NCHAR(6),
    Teacher NVARCHAR(20),
    TimeSlot NVARCHAR(15),
    Class INT,
    Lab INT,
)
```

2. Create an unique, clustered index name MyClusteredIndex on ClassName column with the following attributes

   - Pad_index = on

   - FillFactor =70

   - Ignore_ Dup_Key=on

   Type the flowing code to create the index

```
CREATE UNIQUE CLUSTERED INDEX myClusterdIndex
   ON Classes(ClassName)
   WITH (
      Pad_index = ON,
      FILLFACTOR= 70,
      IGNORE_DUP_KEY  = ON
   )
```

3. Create a nonclustered index named TeacherIndex on Teacher column

```
CREATE NONCLUSTERED INDEX TeacherIndex ON Classes(Teacher)
```

4. Delete TeacherIndex

```
DROP INDEX Classes.TeacherIndex
```

5. Recreate MyClusteredIndex with the following attributes:

   DROP_EXISTING, ALLOW_ROW_LOCKS, ALLOW_PAGE_LOCKS= ON, MAXDOP = 2

```
CREATE UNIQUE CLUSTERED INDEX myClusterdIndex
   ON Classes(ClassName)
   WITH (
      Pad_index = ON,
      FILLFACTOR= 70,
      IGNORE_DUP_KEY  = ON,
      DROP_EXISTING = ON,
      ALLOW_ROW_LOCKS  = ON,
```

```
        ALLOW_PAGE_LOCKS = ON,
        MAXDOP = 2
    )
```

Here are brief explanations about the attributes:

- DROP_EXISTING: the index will be recreated if existed, otherwise you will get an error message

- ALLOW_ROW_LOCKS, ALLOW_PAGE_LOCKS: allows locking data at page or row level when accessing indexes.

- MAXDOP: The maximum numbers of CPUs are used to process indexes. The Max value is 64

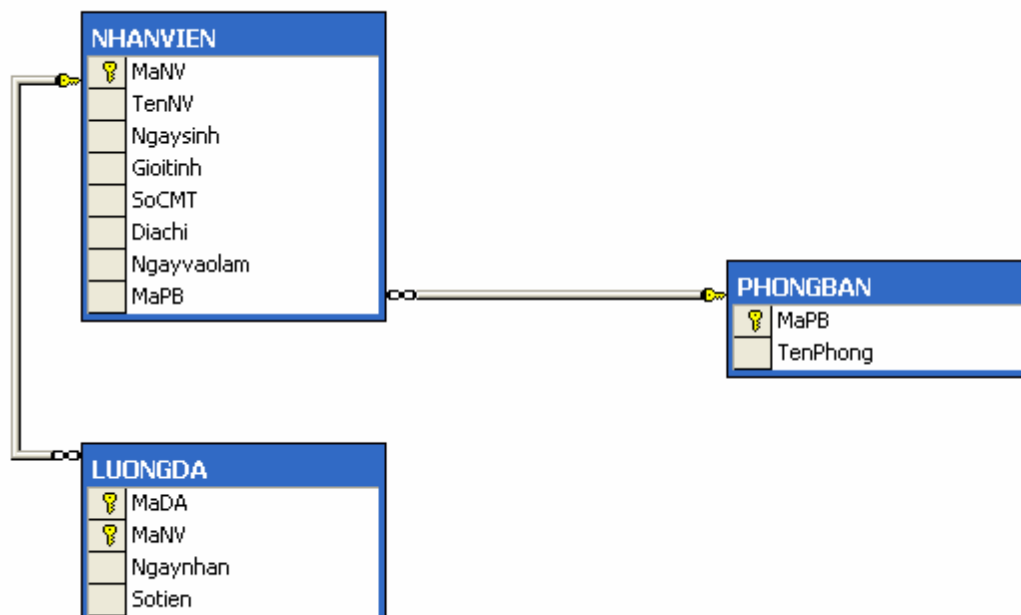6. Create a composite index named ClassLabIndex which includes two columns: Class and Lab

Create index ClassLabIndex   on classes(Class,Lab)

7. View all indexes in the current database

Select * from sys.indexes

Do It Yourself

2.1. Create the following database then create some indexes

1. Create a non clustered index on MaNV of NhanVien table

2. Create a clustered index on MaPB column of PhongBan table

3. Display all indexes in NhanVien table by using sp_helpindex

2.2. Do the workshop 3, 4 in the CD.

2.3. Do the assignment 3 in the CD