

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

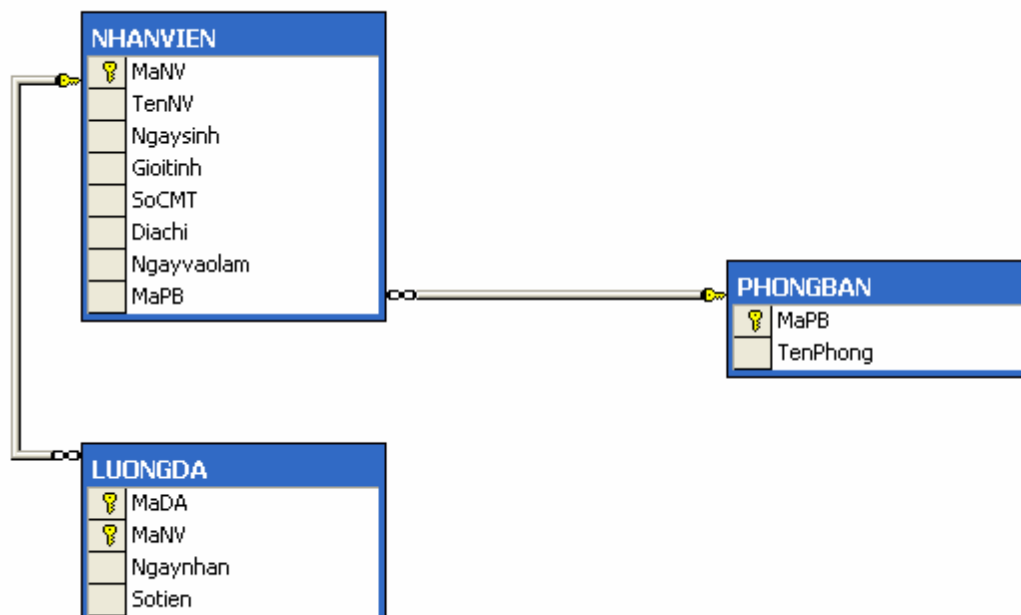
```
Create index ClassLabIndex on classes(Class,Lab)
```

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