

Report

Domain: Student Course

College: Mahidol University

Present

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Section 2

ITCS241 Database Management Systems

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Overview of Mahidol University.

History

1969, 21 February:

King Bhumibol Adulyadej with a royal command to declare that it is expedient to improve the University of Medicine To be a complete university by establishing a new university called "Mahidol University" with a wider scope of work The Mahidol University Act B.E. 2512, graciously granted the name "Mahidol", the name of Mahidol University. Adulyadej Vikrom Phraboromrachanok is the name of the university instead of the former name of the University of Medicine.

Mahidol University Vision

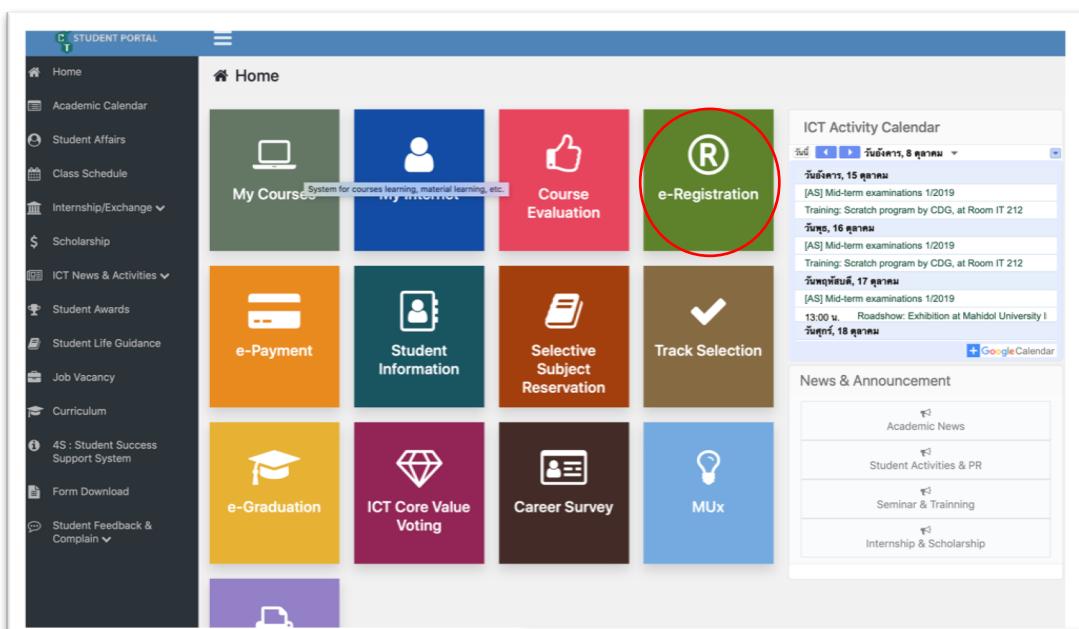
Mahidol University is determined to be a world class university.

Mahidol University Mission

To excel in health, sciences, arts, and innovation with integrity for the betterment of Thai society and the benefit of mankind.

Business Description

Student course is a course that student has to enroll each semester. Student course divided into several part such as class, Section, Room, Tutor, Professor etc. Firstly, each student detail can enroll only one student course and student course have seven course list. Student course have own class and class must be use room for learning. Class have for tell about student section or group of students, room and building have for to study and learning. Section is what is tell data of location of room, number of students per section. Professor is main teacher for teach student and tutor is support them. Tutor can teach any students on special class. Professor depends on professor time schedule; time schedule is duration of everything for student course. Student course detail will tell about all of data about student such as student ID, student name, student age, student address, or student contact.



The screenshot shows the Mahidol University Student Portal interface. On the left is a vertical sidebar with various links: Home, Academic Calendar, Student Affairs, Class Schedule, Internship/Exchange, Scholarship, ICT News & Activities, Student Awards, Student Life Guidance, Job Vacancy, Curriculum, AS : Student Success Support System, Form Download, and Student Feedback & Complain. The main content area is titled 'Home' and features a grid of twelve colored boxes representing different services. The 'e-Registration' box, which contains a registered user icon and the text 'e-Registration', is circled in red. Other boxes include 'My Courses' (laptop icon), 'Course Evaluation' (thumb up icon), 'e-Payment' (credit card icon), 'Student Information' (person icon), 'Selective Subject Reservation' (book icon), 'Track Selection' (checkmark icon), 'e-Graduation' (graduation cap icon), 'ICT Core Value Voting' (diamond icon), 'Career Survey' (person icon), and 'MUx' (lightbulb icon). To the right of the grid is an 'ICT Activity Calendar' section listing events like mid-term exams and training sessions, and a 'News & Announcement' section with links to Academic News, Student Activities & PR, Seminar & Training, and Internship & Scholarship. Below the portal screenshot is a photograph of three students sitting at desks in a computer lab, looking at their screens.

Business Rules

1. Student Course is dividing into several part.
2. Each student detail can enroll only one student course.
3. Student course have seven subjects.
4. Each Student course have only one class.
5. Class must use room for learning.
6. Each room have only one building.
7. One building has twenty rooms.
8. Each tutor has own section for teach.
9. Each tutor teach own student course.
10. Each section have own room.
11. Student course has four tutors for teaching.
12. Each Professor teach own student courses.
13. Student course can have four professors for teaching.
14. Each teaching of professor depend on professor time schedule.

15.Each professor create own subject.

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16.Each student can test minimum five subject.

17.Each student can test maximum seven subject.

18.Each class depend on time schedule.

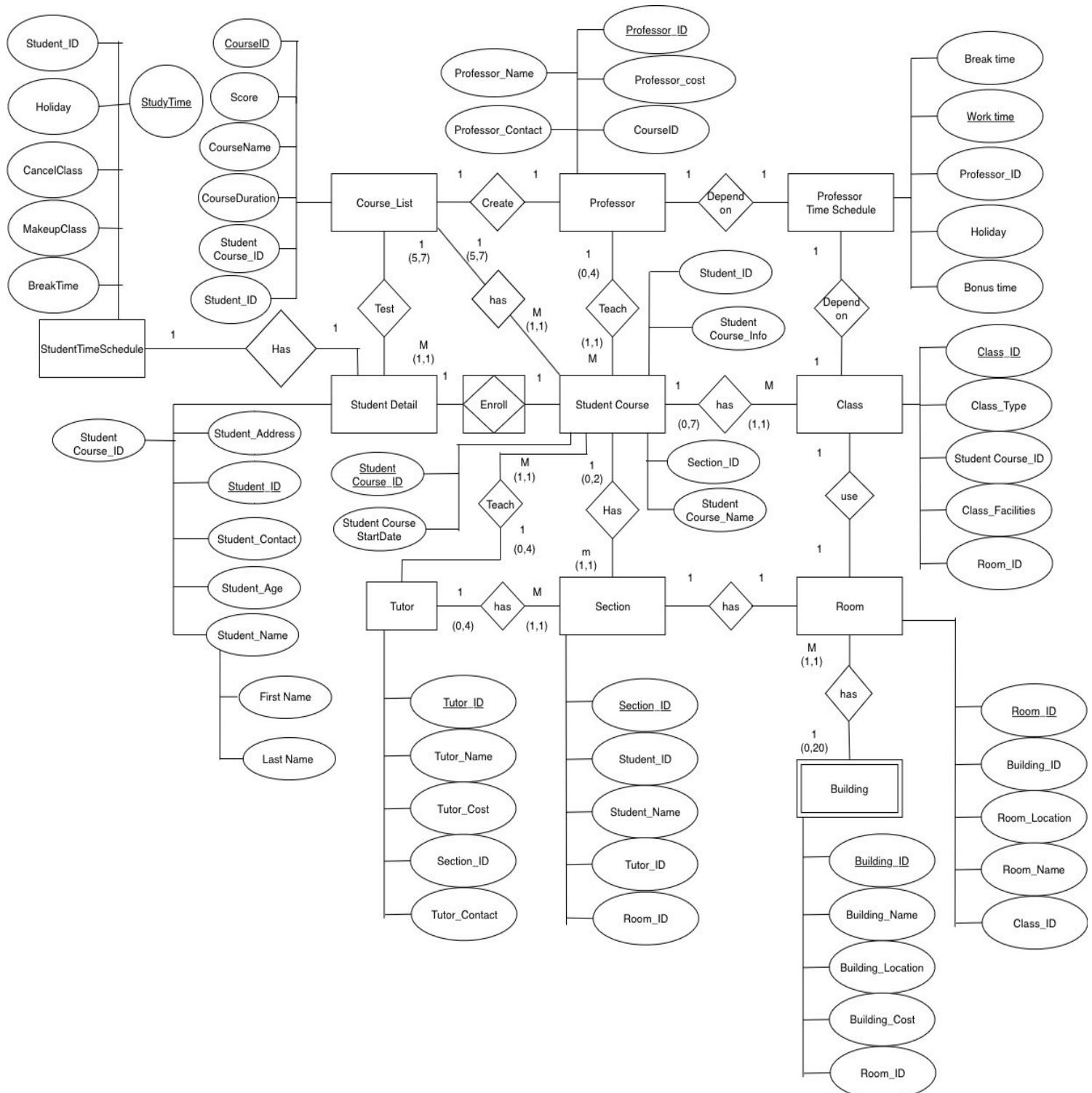
19.Each student course has minimum five subject.

20. Each student course has maximum seven subject.

21.Each student course select section.

22.Each student detail has own student time schedule

ER-Model



Step1

StudentTimeSchedule

Student_ID.	Holiday.	CancelClass.	MakeupClass.	BreakTime.	StudyTime
-------------	----------	--------------	--------------	------------	-----------

Student Detail

Student_Address.	Student_ID.	Student_Contact.	Student_Age.	Student_Name	First Name
					Last Name

Tutor

Tutor_ID.	Tutor_Name.	Tutor_Cost.	Section_ID.	Tutor_Contact
-----------	-------------	-------------	-------------	---------------

Section

Section_ID.	Student_ID.	Student_Nickname.	Tutor_ID.	Room_ID
-------------	-------------	-------------------	-----------	---------

Room

Room_ID.	Building_ID.	Room_Location.	Room_Name.	Class_ID
----------	--------------	----------------	------------	----------

Building

Building_ID.	Building_Name.	Building_Location.	Building_Cost.	Room_ID
--------------	----------------	--------------------	----------------	---------

Student Course

Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate
-------------	---------------------	-------------	---------------------	-------------------	--------------------------

Class

Class_ID.	Class_Type.	Student Course_ID.	Class_Facilities.	Room_ID
-----------	-------------	--------------------	-------------------	---------

Professor Time Schedule

Break time.	Work time.	Professor_ID.	Holiday.	Bonus time
-------------	------------	---------------	----------	------------

Professor

Professor_ID.	Professor_Cost.	CourseID.	Professor_Name.	Professor_Contact
---------------	-----------------	-----------	-----------------	-------------------

Course_List

Course_ID.	Score.	CourseName.	CourseDuration.	Student Course_ID.	Student_ID
------------	--------	-------------	-----------------	--------------------	------------

Step2

Building

Building_ID	Building_Name	Building_Cost	Room_ID	Building Location
-------------	---------------	---------------	---------	-------------------

StudentTimeSchedule

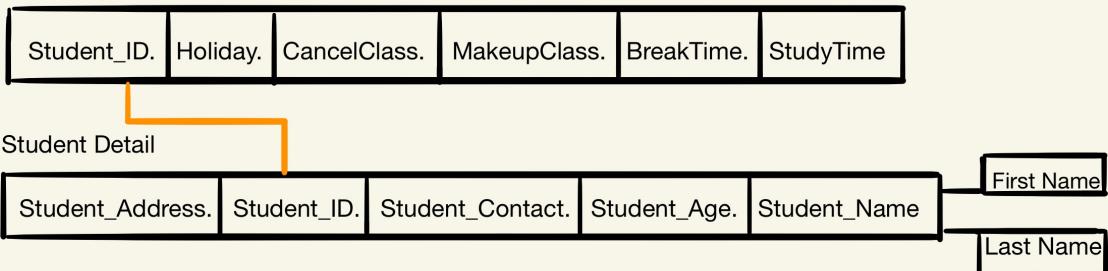
Student_ID.	Holiday.	CancelClass.	MakeupClass.	BreakTime.	StudyTime
-------------	----------	--------------	--------------	------------	-----------

Professor Time Schedule

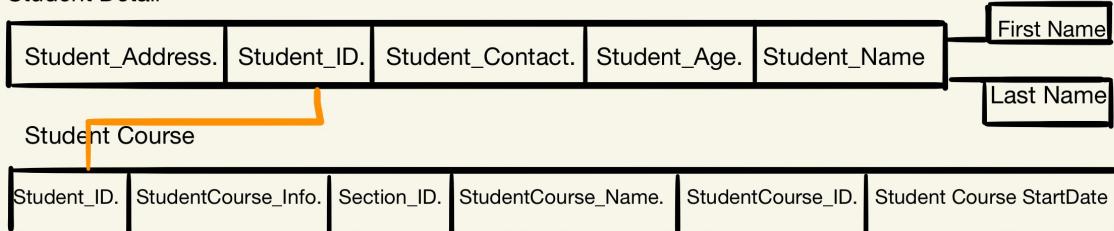
Break time.	Work time.	Professor_ID.	Holiday.	Bonus time
-------------	------------	---------------	----------	------------

Step3

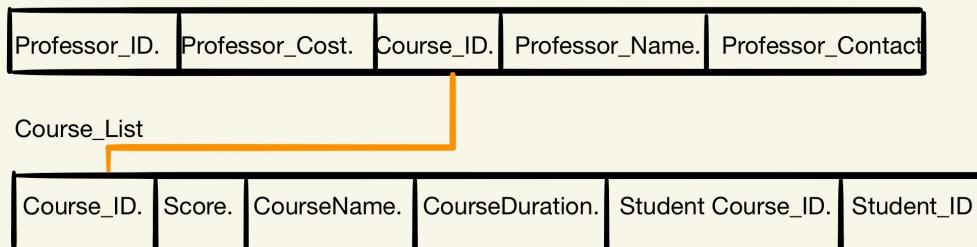
StudentTimeSchedule



Student Detail



Professor



Professor

Professor_ID.	Professor_Cost.	CourseID.	Professor_Name.	Professor_Contact
Professor Time Schedule				
Break time.	Work time.	Professor_ID.	Holiday.	Bonus time

Professor Time Schedule

Break time.	Work time.	Professor_ID.	Holiday.	Bonus time
-------------	------------	---------------	----------	------------

Class

Class_ID.	Class_Type.	Student Course_ID.	Class_Facilities.	Room_ID
-----------	-------------	--------------------	-------------------	---------

Class

Class_ID.	Class_Type.	Student Course_ID.	Class_Facilities.	Room_ID
Room				
Room_ID.	Building_ID.	Room_Location.	Room_Name.	Class_ID

Section

Section_ID.	Student_ID.	Student_Nickname.	Tutor_ID.	Room_ID
Room				
Room_ID.	Building_ID.	Room_Location.	Room_Name.	Class_ID

Step4

Course_List

Course_ID.	Score.	CourseName.	CourseDuration.	Student Course_ID.	Student_ID
------------	--------	-------------	-----------------	--------------------	------------

Student Course

Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate
-------------	---------------------	-------------	---------------------	-------------------	--------------------------

Professor

Professor_ID.	Professor_Cost.	CourseID.	Professor_Name.	Professor_Contact
---------------	-----------------	-----------	-----------------	-------------------

Student Course

Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate
-------------	---------------------	-------------	---------------------	-------------------	--------------------------

Room

Room_ID.	Building_ID.	Room_Location.	Room_Name.	Class_ID
----------	--------------	----------------	------------	----------

Building

Building_ID.	Building_Name.	Building_Location.	Building_Cost.	Room_ID
--------------	----------------	--------------------	----------------	---------

Tutor	<table border="1"><tr><td>Tutor_ID.</td><td>Tutor_Name.</td><td>Tutor_Cost.</td><td>Section_ID.</td><td>Tutor_Contact</td></tr></table>	Tutor_ID.	Tutor_Name.	Tutor_Cost.	Section_ID.	Tutor_Contact	
Tutor_ID.	Tutor_Name.	Tutor_Cost.	Section_ID.	Tutor_Contact			
Section	<table border="1"><tr><td>Section_ID</td><td>Student_ID.</td><td>Student_Nickname.</td><td>Tutor_ID.</td><td>Room_ID</td></tr></table>	Section_ID	Student_ID.	Student_Nickname.	Tutor_ID.	Room_ID	
Section_ID	Student_ID.	Student_Nickname.	Tutor_ID.	Room_ID			
Tutor	<table border="1"><tr><td>Tutor_ID.</td><td>Tutor_Name.</td><td>Tutor_Cost.</td><td>Section_ID.</td><td>Tutor_Contact</td></tr></table>	Tutor_ID.	Tutor_Name.	Tutor_Cost.	Section_ID.	Tutor_Contact	
Tutor_ID.	Tutor_Name.	Tutor_Cost.	Section_ID.	Tutor_Contact			
Student Course	<table border="1"><tr><td>Student_ID.</td><td>StudentCourse_Info.</td><td>Section_ID.</td><td>StudentCourse_Name.</td><td>StudentCourse_ID.</td><td>Student Course StartDate</td></tr></table>	Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate
Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate		

Course_List	<table border="1"><tr><td>Course_ID.</td><td>Score.</td><td>CourseName.</td><td>CourseDuration.</td><td>Student Course_ID.</td><td>Student_ID</td></tr></table>	Course_ID.	Score.	CourseName.	CourseDuration.	Student Course_ID.	Student_ID
Course_ID.	Score.	CourseName.	CourseDuration.	Student Course_ID.	Student_ID		
Student Detail	<table border="1"><tr><td>Student_Address.</td><td>Student_ID.</td><td>Student_Contact.</td><td>Student_Age.</td><td>Student_Name</td><td>First Name Last Name</td></tr></table>	Student_Address.	Student_ID.	Student_Contact.	Student_Age.	Student_Name	First Name Last Name
Student_Address.	Student_ID.	Student_Contact.	Student_Age.	Student_Name	First Name Last Name		
Section	<table border="1"><tr><td>Section_ID</td><td>Student_ID.</td><td>Student_Nickname.</td><td>Tutor_ID.</td><td>Room_ID</td></tr></table>	Section_ID	Student_ID.	Student_Nickname.	Tutor_ID.	Room_ID	
Section_ID	Student_ID.	Student_Nickname.	Tutor_ID.	Room_ID			
Student Course	<table border="1"><tr><td>Student_ID.</td><td>StudentCourse_Info.</td><td>Section_ID.</td><td>StudentCourse_Name.</td><td>StudentCourse_ID.</td><td>Student Course StartDate</td></tr></table>	Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate
Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate		

Step5

Student Detail

Student_Address.	Student_ID.	Student_Contact.	Student_Age.	Student_Name	First Name
					Last Name

Student Course

Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate
-------------	---------------------	-------------	---------------------	-------------------	--------------------------

Step6– Nothing

Step7

Student Course

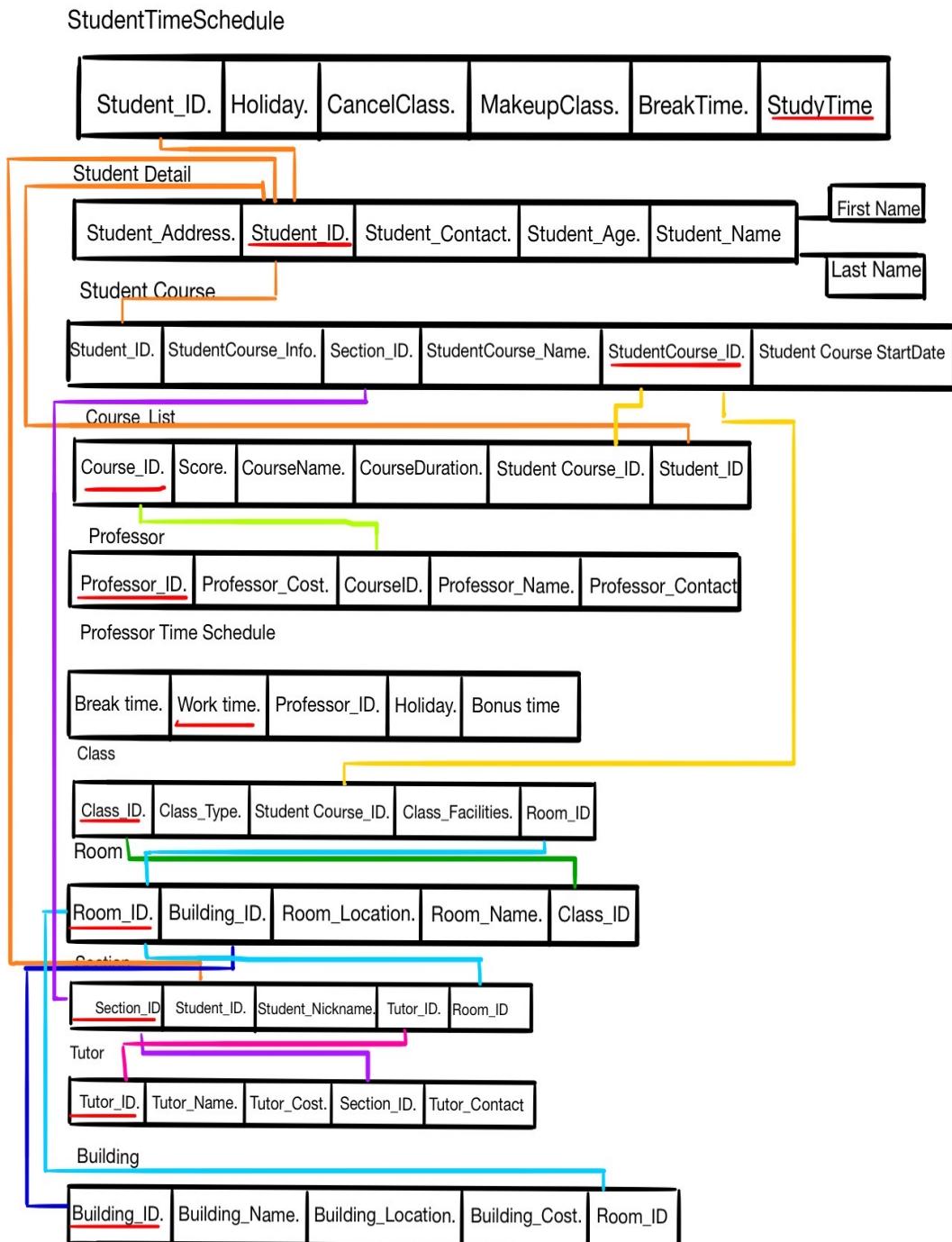
Student_ID.	StudentCourse_Info.	Section_ID.	StudentCourse_Name.	StudentCourse_ID.	Student Course StartDate
-------------	---------------------	-------------	---------------------	-------------------	--------------------------

Class

Class_ID.	Class_Type.	Student Course_ID.	Class_Facilities.	Room_ID
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Step8 - Nothing

Final Relational schema



Data dictionary

TableName	Attribute Name	Contents	Type	Format	Nullable	Range	Key	FK Referenced Table
StudentDetail	Student_Address	Student's Address	nvarchar(100)	XXXXXX	Y			
	Student_ID	Student's ID	nvarchar(50)	XXXXXX		1 to 200	PK	
	Student_Contact	Student's Contact	nvarchar(50)	XXXXXX				
	Student_Age	Student's Age	int	x		17 to 28		
	StudentCourse_ID	Student's Course's ID	nvarchar(50)	XXXXXX				
	Student_Name	Student's Name	nvarchar(50)	XXXXXX				
StudentTimeSchedule	BreakTime	Student's BreakTime	nvarchar(50)	XXXXXX		12.00 to 13.00 PM		
	MakeupClass	Student's Makeup Class	date	yyyy-mm-dd				
	CancelClass	Student's Cancel Class	date	yyyy-mm-dd				
	Holiday	Student's Holiday	nvarchar(200)	XXXXXX				
	Student_ID	Student's ID	nvarchar(50)	XXXXXX		1 to 200	FK	Student_ID(StudentDetail)
	Study_Time	Student's StudyTime	nvarchar(200)	XXXXXX			PK	
Student Course	StudentCourse_ID	Student Course's ID	nvarchar(50)	XXXXXX			PK	
	StudentCourseDateTime	Student Course Date Time	date	yyyy-mm-dd				
	Section_ID	Section's ID	nvarchar(50)	XXXXXX		1 to 2	FK	Section_ID(Student Course)
	StudentCourse_Name	Student Course's Name	nvarchar(50)	XXXXXX				
	StudentCourse_Info	Student Course's Info	nvarchar(100)	XXXXXX	Y			
CourseList	Student_ID	Student's ID	nvarchar(50)	XXXXXX		1 to 200	FK	Student_ID(StudentDetail)
	Score	Score	int	x		0 to 100		
	Course_Name	Course's Name	nvarchar(50)	XXXXXX				
	Course_ID	Course's ID	nvarchar(50)	XXXXXX			PK	
	Course_Duration	Course's Duration	nvarchar(50)	XXXXXX				
Professor	StudentCourse_ID	Student Course's ID	nvarchar(50)	XXXXXX			FK	Student Course_ID(Student Course)
	Professor_Name	Professor's Name	nvarchar(50)	XXXXXX				
	Professor_Contact	Professor's Contact	nvarchar(50)	XXXXXX				
	Course_ID	Course's ID	nvarchar(50)	XXXXXX			FK	Course_ID(Course List)
	Professor_Cost	Professor's Cost	decimal(12,2)	1234567890				
Professor Time Schedule	Professor_ID	Professor's ID	nvarchar(50)	XXXXXX		1 to 4	PK	
	BreakTime	Professor's Break time	nvarchar(50)	XXXXXX		12.00-13.00 PM		
	WorkTime	Professor's Work time	nvarchar(200)	XXXXXX			PK	
	Professor_ID	Professor's ID	nvarchar(50)	XXXXXX			FK	Professor_ID(Professor)
	Holiday	Professor's Holiday	nvarchar(200)	XXXXXX				
Class	BonusTime	Professor's Bonus time	date	yyyy-mm-dd	Y			
	Class_ID	Class's ID	nvarchar(50)	XXXXXX			PK	
	Class_Type	Class's Type	nvarchar(50)	XXXXXX				
	StudentCourse_ID	Student Course's ID	nvarchar(50)	XXXXXX			FK	Student Course_ID(Student Course)
	Class_Facilities	Class's Facilities	nvarchar(100)	XXXXXX	Y			
Section	Room_ID	Room's ID	nvarchar(50)	XXXXXX		1 to 20	FK	
	Section_ID	Section's ID	nvarchar(50)	XXXXXX		1 to 2	PK	
	Student_ID	Student's ID	nvarchar(50)	XXXXXX		1 to 200	FK	Student_ID(StudentDetail)
	Student_Nickname	Student's Nickname	nvarchar(50)	XXXXXX				
	Tutor_ID	Tutor's ID	nvarchar(50)	XXXXXX		1 to 4	FK	Tutor_ID(Tutor)
Tutor	Room_ID	Room's ID	nvarchar(50)	XXXXXX		1 to 20	FK	Room_ID(Room)
	Tutor_ID	Tutor's ID	nvarchar(50)	XXXXXX			PK	
	Tutor_Name	Tutor's Name	nvarchar(50)	XXXXXX				
	Tutor_Cost	Tutor's Cost	decimal(12,2)	1234567890				
	Section_ID	Section's ID	nvarchar(50)	XXXXXX		1 to 2	FK	Section_ID(Student Course)
Room	Tutor_Contact	Tutor's Contact	nvarchar(50)	XXXXXX				
	Room_ID	Room's ID	nvarchar(50)	XXXXXX		1 to 20	PK	
	Building_ID	Building's ID	nvarchar(50)	XXXXXX			FK	Building_ID(Building)
	Room_Location	Room's Location	nvarchar(100)	XXXXXX	Y			
	Room_Name	Room's Name	nvarchar(50)	XXXXXX				
Building	Class_ID	Class's ID	nvarchar(50)	XXXXXX			FK	Class_ID(Class)
	Building_ID	Building's ID	nvarchar(50)	XXXXXX			PK	
	Building_Name	Building's Name	nvarchar(100)	XXXXXX				
	Building_Location	Building's Location	nvarchar(100)	XXXXXX	Y			
	Building_Cost	Building's Cost	decimal(12,2)	1234567890				
	Room_ID	Room's ID	nvarchar(50)	XXXXXX		1 to 20	FK	Room_ID(Room)

Data

StudentDetail					
Student_Address	Student_ID	Student_Contact	Student_Age	StudentCourse_ID	Student_Name
BKK	S101	819436141	18	CO01	sarun junbang
BKK	S102	819452111	20	CO02	teekawin Kirdsaeng
BKK	S103	819765241	19	CO03	Weeraphat Srisutham
BKK	S104	863549652	21	CO04	Supanat Nummuang
BKK	S105	897654125	18	CO05	peter tomson

Class				
Class_ID	Class_Type	StudentCourse_ID	Class_Facility	Room_ID
C01	theory	CO01	Projector	R01
C02	theory	CO02	Projector	R02
C03	theory	CO03	Projector	R03
C04	practice	CO04	computer	R04
C05	practice	CO05	computer	R05

ProfessorTimeS.				
Break time	Work time	Professor_ID	Holiday	Bonus time
12.00-13.00 PM	8.00-19.00 PM	sarun junbang	Sat-Sun	2019-02-01
12.00-13.00 PM	9.00-14.00 PM	Peter tomson	Sat-Sun	2019-03-01
12.00-13.00 PM	10.00-18.00 PM	Tom honland	Sat-Sun	2019-03-01
12.00-13.00 PM	13.00-16.00 PM	Suchat Jidee	Sat-Sun	2019-04-01

Room				
Room_ID	Building_ID	Room_Location	Room_Name	Class_ID
R01	B01	FirstFloor	Studentroom	C01
R02	B01	FirstFloor	Studentroom	C02
R03	B01	SecondFloor	Studentroom	C03
R04	B01	FirstFloor	Studentroom	C04
R05	B01	SecondFloor	Studentroom	C05

Section				
Section_ID	Student_ID	Student_Nicknam	Tutor_ID	Room_ID
SC01	S101	Mark	T01	R01
SC02	S102	ohm	T01	R01

StudentTimeSchedule					
Student_ID	Holiday	CancelClass	MakeupClass	BreakTime	StudyTime
S101	Sat-Sun	2019-04-02	2019-05-05	12.00-13.00 PM	8.00-12.00PM
S102	Sat-Sun	2019-04-03	2019-05-05	12.00-13.00 PM	9.00-14.00PM
S103	Sat-Sun	2019-04-06	2019-04-05	12.00-13.00 PM	10.00-18.00PM
S104	Sat-Sun	2019-04-08	2019-02-05	12.00-13.00 PM	10.00-12.00PM
S105	Sat-Sun	2019-04-05	2019-03-05	12.00-13.00 PM	13.00-16.00PM

Building				
Building_ID	Building_Name	Building_Loaction	Building_Cost	Room_ID
B01	ICT	Mahidol	50,000.00	R01

Tutor				
Tutor_ID	Tutor_Name	Tutor_Cost	Section_ID	Tutor_Contact
T01	Tom toyree	20,000.00	SC01	812463568
T02	Potter Poden	20,000.00	SC02	829467865
T03	Herman kingston	20,000.00	SC01	897867543
T04	somjit jungtong	15,000.00	SC02	883567665

Course_List						
CourseID	Score	CourseName	CourseDuration	StudentCourse_ID	Student_ID	
A001	50	TECHNICAL ENGL	2 hours	CO01	S101	
B002	76	Economics	3 hours	CO02	S102	
C003	100	Numerical Methods	3 hours	CO03	S103	
D004	89	Database Manager	3 hours	CO04	S104	
A002	87	Reading	2 hours	CO05	S105	

Professor				
Professor_ID	Professor_cost	CourseID	Professor_Name	Professor_Contact
P01	20,000.00	B002	sarun junbang	819430611
P02	40,000.00	A001	Peter tomson	819438764
P03	40,000.00	A001	Tom honland	819463566
P04	20,000.00	D004	Suchat Jidee	987687988

Student Course					
Student_ID	StudentCourse_info	Section_ID	StudentCause_Name	StudentCourse_ID	StudentCourse_StartDate
S101	EnglishWriting	SC01	English	CO01	2019-01-02
S102	Society	SC01	Thai	CO02	2019-01-02
S103	Math	SC01	English	CO03	2019-01-02
S104	Computer	SC01	English	CO04	2019-01-02
S105	EnglishReading	SC02	English	CO05	2019-01-04

Query Insert

```
SQLQueryInsert.sql...UN\iHereMark (53) ↗ X
INSERT INTO Building VALUES('B01', 'ICT', 'Mahidol', 50000.00, 'R01');

INSERT INTO Building VALUES ('B01', 'ICT', 'Mahidol', 50000.00, 'R02');

INSERT INTO Building VALUES ('B01', 'ICT', 'Mahidol', 50000.00, 'R03');

INSERT INTO Building VALUES ('B01', 'ICT', 'Mahidol', 50000.00, 'R04');

INSERT INTO Building VALUES ('B01', 'ICT', 'Mahidol', 50000.00, 'R05');
```

Number 1-5 is value of Building table

```
INSERT INTO Class VALUES ('C01', 'Theory', 'A001', 'Projector', 'R01');

INSERT INTO Class VALUES ('C02', 'Theory', 'B002', 'Projector', 'R02');

INSERT INTO Class VALUES ('C03', 'Theory', 'C003', 'Projector', 'R03');

INSERT INTO Class VALUES ('C04', 'Practice', 'D004', 'Computer', 'R04');

INSERT INTO Class VALUES ('C05', 'Practice', 'C003', 'Computer', 'R05');
```

Number 6-10 is value of Class table

```
CreateTable.sql -...RUN\iHereMark (52) ➔ X  
CREATE TABLE Building(  
    [Building_ID] [nvarchar](50) NOT NULL,  
    [Building_Name] [nvarchar](100) NOT NULL,  
    [Building_Location] [nvarchar](100) NULL,  
    [Building_Cost] [decimal](12, 2) NOT NULL,  
    [Room_ID] [nvarchar](50) NOT NULL,  
  
)  
  
CREATE TABLE Class(  
    [Class_ID] [nvarchar](50) NOT NULL,  
    [Class_Type] [nvarchar](50) NOT NULL,  
    [StudentCourse_ID] [nvarchar](50) NOT NULL,  
    [Class_Facilities] [nvarchar](100) NULL,  
    [Room_ID] [nvarchar](50) NOT NULL,  
)  
  
CREATE TABLE CourseList(  
    [Student_ID] [nvarchar](50) NOT NULL,  
    [Score] [int] NOT NULL,  
    [Course_Name] [nvarchar](50) NOT NULL,  
    [Course_ID] [nvarchar](50) NOT NULL,  
    [Course_Duration] [nvarchar](50) NOT NULL,  
    [StudentCourse_ID] [nvarchar](50) NOT NULL,  
)  
  
CREATE TABLE Professor(  
    [Professor_ID] [nvarchar](50) NOT NULL,  
    [Professor_Cost] [decimal](12, 2) NOT NULL,  
    [Course_ID] [nvarchar](50) NOT NULL,  
    [Professor_Name] [nvarchar](50) NOT NULL,  
    [Professor_Contact] [nvarchar](50) NOT NULL,  
)
```

```
CREATE TABLE Professor(
    [Professor_ID] [nvarchar](50) NOT NULL,
    [Professor_Cost] [decimal](12, 2) NOT NULL,
    [Course_ID] [nvarchar](50) NOT NULL,
    [Professor_Name] [nvarchar](50) NOT NULL,
    [Professor_Contact] [nvarchar](50) NOT NULL,
)

CREATE TABLE ProfessorTimeSchedule(
    [BreakTime] [nvarchar](50) NOT NULL,
    [WorkTime] [nvarchar](200) NOT NULL,
    [Professor_ID] [nvarchar](50) NOT NULL,
    [Holiday] [nvarchar](200) NOT NULL,
    [BonusTime] [date] NULL,
)

CREATE TABLE Room(
    [Room_ID] [nvarchar](50) NOT NULL,
    [Building_ID] [nvarchar](50) NOT NULL,
    [Room_Location] [nchar](100) NULL,
    [Room_Name] [nvarchar](50) NOT NULL,
    [Class_ID] [nvarchar](50) NOT NULL,
)

CREATE TABLE Section(
    [Section_ID] [nvarchar](50) NOT NULL,
    [Student_ID] [nvarchar](50) NOT NULL,
    [Student_NickName] [nvarchar](50) NOT NULL,
    [Tutor_ID] [nvarchar](50) NOT NULL,
    [Room_ID] [nvarchar](50) NOT NULL,
)
```

```
CREATE TABLE StudentCourse(
    [StudentCourse_ID] [nvarchar](50) NOT NULL,
    [StudentCourseTimeDate] [date] NOT NULL,
    [Section_ID] [nvarchar](50) NOT NULL,
    [StudentCourse_Name] [nvarchar](50) NOT NULL,
    [StudentCourse_Info] [nvarchar](100) NULL,
    [Student_ID] [nvarchar](50) NOT NULL,
)

CREATE TABLE StudentDetail(
    [Student_Address] [nvarchar](100) NULL,
    [Student_ID] [nvarchar](50) NOT NULL,
    [Student_Contact] [nvarchar](50) NOT NULL,
    [Student_Age] [int] NOT NULL,
    [StudentCourse_ID] [nvarchar](50) NOT NULL,
    [Student_Name] [nvarchar](50) NOT NULL,
)

CREATE TABLE StudentTimeSchedule(
    [BreakTime] [nvarchar](50) NOT NULL,
    [MakeupClass] [date] NOT NULL,
    [CancelClass] [date] NOT NULL,
    [Holiday] [nvarchar](200) NOT NULL,
    [Student_ID] [nvarchar](50) NOT NULL,
    [Study_Time] [nvarchar](200) NOT NULL,
)

CREATE TABLE Tutor(
    [Tutor_ID] [nvarchar](50) NOT NULL,
    [Tutor_Name] [nvarchar](50) NOT NULL,
    [Tutor_Cost] [decimal](12, 2) NOT NULL,
    [Section_ID] [nvarchar](50) NOT NULL,
    [Tutor_Contact] [nvarchar](50) NOT NULL,
)
```

Basic Query

1.Description = Select Student_ID which is 'S102' from StudentDetail table.

```
SELECT Student_ID
FROM StudentDetail
WHERE Student_ID = 'S102'
GROUP BY Student_ID
```

The screenshot shows the SQL Server Management Studio interface. On the left, a query window displays the following T-SQL code:

```
SELECT Student_ID
FROM StudentDetail
WHERE Student_ID = 'S102'
GROUP BY Student_ID
```

On the right, a results window titled "Results" shows a single row of data:

	Student_ID
1	S102

2.Description = Select StudentCourse_ID which is 'CO02' from StudentCourse table.

```
SELECT StudentCourse_ID
FROM StudentCourse
WHERE StudentCourse_ID = 'CO02'
GROUP BY StudentCourse_ID
```

The screenshot shows the SQL Server Management Studio interface. On the left, a query window displays the following T-SQL code:

```
SELECT StudentCourse_ID
FROM StudentCourse
WHERE StudentCourse_ID = 'CO02'
GROUP BY StudentCourse_ID
```

On the right, a results window titled "Results" shows a single row of data:

	StudentCourse_ID
1	CO02

3.Description = Select CourseID which is 'B002' from CourseList table.

```
SELECT CourseID  
FROM CourseList  
WHERE CourseID = 'B002'  
GROUP BY CourseID
```

The screenshot shows the SQL query in the left pane:

```
SELECT Course_ID  
FROM CourseList  
WHERE Course_ID = 'B002'  
GROUP BY Course_ID
```

The results pane on the right shows a single row:

	Course_ID
1	B002

4.Description = Select StudyTime which is '9.00-14.00PM' from StudentTimeSchedule table.

```
SELECT StudyTime  
FROM StudentTimeSchedule  
WHERE StudyTime = '9.00-14.00PM'  
GROUP BY StudyTime
```

The screenshot shows the SQL query in the left pane:

```
SELECT Study_Time  
FROM StudentTimeSchedule  
WHERE Study_Time = '9.00-14.00PM'  
GROUP BY Study_Time
```

The results pane on the right shows a single row:

	Study_Time
1	9.00-14.00P...

5.Description = Select Section_ID which is 'SC02' from Section table.

```
SELECT Section_ID  
FROM Section  
WHERE Section_ID = 'SC02'  
GROUP BY Section_ID
```

The screenshot shows a SQL query in the left pane and its results in the right pane. The query is:

```
SELECT Section_ID  
FROM Section  
WHERE Section_ID = 'SC02'  
GROUP BY Section_ID
```

The results pane shows a single row with the value 'SC02' in the 'Section_ID' column.

	Section_ID
1	SC02

6.Description = Select Class_ID which is 'C02' from Class table.

```
SELECT Class_ID  
FROM Class  
WHERE Class_ID = 'C02'  
GROUP BY Class_ID
```

The screenshot shows a SQL query in the left pane and its results in the right pane. The query is:

```
SELECT Class_ID  
FROM Class  
WHERE Class_ID = 'C02'  
GROUP BY Class_ID
```

The results pane shows a single row with the value 'C02' in the 'Class_ID' column.

	Class_ID
1	C02

7.Description = Select Room_ID which is 'R02' from Room table.

```
SELECT Room_ID  
FROM Room  
WHERE Room_ID = 'R02'  
GROUP BY Room_ID
```

The screenshot shows a SQL query window titled 'Query1.sql - Microsoft SQL Server Object Explorer (SSMS)'. The query is:

```
SELECT Room_ID  
FROM Room  
WHERE Room_ID = 'R02'  
GROUP BY Room_ID
```

The results pane shows a table with one row:

	Room_ID
1	R02

8.Description = Select Building_ID which is 'B01' from Building table.

```
SELECT Building_ID  
FROM Building  
WHERE Building_ID = 'B01'  
GROUP BY Building_ID
```

The screenshot shows a SQL query window titled 'Query1.sql - Microsoft SQL Server Object Explorer (SSMS)'. The query is:

```
SELECT Building_ID  
FROM Building  
WHERE Building_ID = 'B01'  
GROUP BY Building_ID
```

The results pane shows a table with one row:

	Building_ID
1	B01

9.Description = Select Professor_ID which is 'P02' from Professor table.

```
SELECT Professor_ID
FROM Professor
WHERE Professor_ID = 'P02'
GROUP BY Professor_ID
```

The screenshot shows a SQL query window with the following content:

```
SELECT Professor_ID
FROM Professor
WHERE Professor_ID = 'P02'
GROUP BY Professor_ID
```

To the right, the results pane displays a single row of data:

	Professor_ID
1	P02

10.Description = Select WorkTime which is '9.00-14.00PM' from ProfessorTimeSchedule table.

```
SELECT WorkTime
FROM ProfessorTimeSchedule
WHERE WorkTime = '9.00-14.00 PM'
GROUP BY WorkTime
```

The screenshot shows a SQL query window with the following content:

```
SELECT WorkTime
FROM ProfessorTimeSchedule
WHERE WorkTime = '9.00-14.00 PM'
GROUP BY WorkTime
```

To the right, the results pane displays a single row of data:

	WorkTime
1	9.00-14.00 PM