

### Lab-9

#### Training Management System

##### Entity:

Name	Attribute	Primary Key
<b>Student</b>	Stdno, sname	Stdno
<b>Course</b>	Ccode, sname, ccost	Ccode
<b>Institute</b>	Instname, phone	Instname
<b>Project</b>	Pcode, pname	pcode

##### Student:

Attribute	Data type
Stdno	Varchar
Sname	varchar

##### Student:

Stdno	sname
S01	PRANAB
S02	HARISH
S03	ANUMITA
S04	RADHIKA
S05	ANKIT

##### Course:

attribute	Data type	description
Ccode	Varchar	Course code
Cname	Varchar	Name of the course
Ccost	Number	Cost of the course

##### Course:

ccode	cname	ccost
C01	ORACLE	20000
C02	VB	5000
C03	C++	10000
C04	JAVA	30000
C05	DB2	40000

**Institute:**

attribute	Data type	description
PHONE	NUMBER	INSTITUTE PHONE NUMBER
Instname	Varchar	Name of the institute

**Institute:**

instname	phone
SSI	238765
APTECH	211342
NIIT	339876
IIHT	297652
SQL STAR	2775410

**Project:**

Attributes	Data types	Description
Pcode	Varchar	Project code
Pname	varchar	Project name

**Project:**

Pcode	Pname
P01	PAYROLL SYSTEM
P02	MICROCONTROLLER
P03	PAILWAY RESERVATION
P04	STATISTICAL PACKAGE
P05	LEAVE MANAGEMENT

**Relationship:**

Relationship	Primary key	Foreign key	Reference entity	Relationship attributes
Does	Stdno+ ccode	Stdno→ccode	Student , course	Nil
Conducts	Ccode + instname	Ccode→instname	Course, institute	Nil
Excecutives	Stdno + pcode	Stdno→pcode	Student, project	Nil

**Does:**

stdno	ccode
S01	C01
S01	C05
S02	C01
S02	C03
S03	C02
S04	C03

S04	C05
S05	C04

**Conducts:**

cocode	Instname
C01	SQL STAR
C01	SSI
C02	APTECH
C03	IIHT
C03	SSI
C04	SQL STAR
C05	NIIT

**EXECUTES:**

Stdno	pcode
S01	P01
S01	P05
S02	P02
S02	P04
S03	P04
S04	P02
S04	P05
S05	P03
S05	P04

**Queries:**

- 1) List the student details who has done more than one course.
- 2) List the course, which is done by more than one student.
- 3) List the student details who has done course at SQL STAR.
- 4) List the institute details who conducts VB course.
- 5) List the course, which is conducted by more than one institute.
- 6) List the institutes, which conducts more than one course.
- 7) List the student details who have done more than one project.
- 8) List the projects, which is done by more than one student.
- 9) List the project, which is developed using VB software.
- 10) List the project details executed by 'HARISH'.
- 11) List the student name who has done the costliest course.
- 12) List the course offered by IIHT.
- 13) List the students involved in the execution of MICROCONTROLLER project.
- 14) List the projects executed in JAVA.
- 15) Count the total number of projects in which RADHIKA is involved.
- 16) List the course name, institute name and student name of those students who have taken training on the course offered by that institute whose phone number does not start with the digit 2.