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CREATE TABLE `classroom` ( `building` varchar(15) NOT NULL, `room_number`
varchar(7) NOT NULL, `capacity` int DEFAULT NULL, PRIMARY KEY
(`building`,`room_number`) ) ENGINE=InnoDB DEFAULT CHARSET=utf8;
INSERT INTO `classroom` VALUES ('Packard','101',500),;
```

```
CREATE TABLE `department` ( `dept_name` varchar(20) NOT NULL, `building`
varchar(15) DEFAULT NULL, `budget` decimal(12,2) DEFAULT NULL, PRIMARY KEY
(`dept_name`) ) ENGINE=InnoDB DEFAULT CHARSET=utf8;
INSERT INTO `department` VALUES ('Biology','Watson',90000.00);
```

```
DROP TABLE IF EXISTS `course`;
CREATE TABLE `course` ( `course_id` varchar(8) NOT NULL, `title` varchar(50)
DEFAULT NULL, `dept_name` varchar(20) NOT NULL, `credits` int DEFAULT NULL,
PRIMARY KEY (`course_id`), FOREIGN KEY (`dept_name`) references
`department` (`dept_name`) on delete RESTRICT ) ENGINE=InnoDB DEFAULT
CHARSET=utf8; INSERT INTO `course` VALUES ('BIO-101','Intro. to
Biology','CSE',3)
```

```
DROP TABLE IF EXISTS `instructor`; CREATE TABLE `instructor` ( `ID` char(5) NOT
NULL, `name` varchar(20) NOT NULL, `dept_name` varchar(20) NOT NULL, `salary`
decimal(8,2) DEFAULT NULL, PRIMARY KEY (`ID`), FOREIGN KEY (`dept_name`)
references `department` (`dept_name`) on delete RESTRICT ) ENGINE=InnoDB DEFAULT
CHARSET=utf8; INSERT INTO `instructor` VALUES ('10101','Srinivasan','Comp.
Sci.',40000.00),('10102','Srikant','Comp. Sci.',90000.00);
```

```
DROP TABLE IF EXISTS `time_slot`;
```

```
CREATE TABLE `time_slot` ( `time_slot_id` varchar(4) NOT NULL, `day` varchar(1)
NOT NULL, `start_hr` decimal(2,0) NOT NULL, `start_min` decimal(2,0) NOT NULL,
`end_hr` decimal(2,0) NOT NULL, `end_min` decimal(2,0) NOT NULL, PRIMARY KEY
(`time_slot_id`,`day`,`start_hr`,`start_min`) ) ENGINE=InnoDB DEFAULT
CHARSET=utf8; INSERT INTO `time_slot` VALUES ('A','F',8,0,8,50);
```

```
CREATE TABLE `section` ( `course_id` varchar(8) NOT NULL, `sec_id` varchar(8) NOT
NULL, `semester` varchar(6) NOT NULL, `year` int NOT NULL, `building` varchar(15)
NOT NULL, `room_number` varchar(7) NOT NULL, `time_slot_id` varchar(4) NOT NULL,
PRIMARY KEY (`course_id`,`sec_id`,`semester`,`year`), FOREIGN KEY
(`course_id`) references `course` (`course_id`) on delete RESTRICT, FOREIGN KEY
(`building`,`room_number`) references `classroom` (`building`,`room_number`)
on delete RESTRICT, FOREIGN KEY (`time_slot_id`) references
```

```

`time_slot`(`time_slot_id`) on delete RESTRICT ) ENGINE=InnoDB DEFAULT
CHARSET=utf8; INSERT INTO `section` VALUES ('BIO-
101', '1', 'Summer', 2009, 'Painter', '514', 'B');

CREATE TABLE `teaches` ( `ID` varchar(5) NOT NULL, `course_id` varchar(8) NOT
NULL, `sec_id` varchar(8) NOT NULL, `semester` varchar(6) NOT NULL, `year` int
NOT NULL, PRIMARY KEY (`ID`, `course_id`, `sec_id`, `semester`, `year`), FOREIGN
KEY (`course_id`, `sec_id`, `semester`, `year`) references
`section`(`course_id`, `sec_id`, `semester`, `year`) on delete restrict, FOREIGN
KEY (`ID`) references `instructor`(`ID`) on delete RESTRICT ) ENGINE=InnoDB
DEFAULT CHARSET=utf8; INSERT INTO `teaches` VALUES ('10101', 'CS-
101', '1', 'Fall', 2009);

CREATE TABLE `student` ( `ID` varchar(5) NOT NULL, `name` varchar(20) NOT NULL,
`dept_name` varchar(20), `tot_cred` int, PRIMARY KEY (`ID`), FOREIGN KEY
(`dept_name`) references `department`(`dept_name`) on delete RESTRICT )
ENGINE=InnoDB DEFAULT CHARSET=utf8; INSERT INTO `student` VALUES ('1234',
'ShinHwan Kang', 'CSE', 100);

CREATE TABLE `advisor` ( `s_ID` varchar(5) NOT NULL, `i_ID` varchar(5) NOT NULL,
PRIMARY KEY (`s_ID`), FOREIGN KEY (`i_ID`) REFERENCES `instructor`(`ID`) on
DELETE RESTRICT, FOREIGN KEY (`s_ID`) REFERENCES `student`(`ID`) on DELETE
RESTRICT ) ENGINE=InnoDB DEFAULT CHARSET=utf8; INSERT INTO `advisor` (`s_ID`,
`i_ID`) VALUES ('12345', '10101');

CREATE TABLE `takes` ( `ID` varchar(5) NOT NULL, `course_id` varchar(8) NOT NULL,
`sec_id` varchar(8) NOT NULL, `semester` varchar(6) NOT NULL, `year` int NOT
NULL, `grade` varchar(2) DEFAULT NULL, PRIMARY KEY
(`ID`, `course_id`, `sec_id`, `semester`, `year`), FOREIGN KEY (`ID`) REFERENCES
`student`(`ID`) on DELETE RESTRICT, FOREIGN KEY
(`course_id`, `sec_id`, `semester`, `year`) references
`section`(`course_id`, `sec_id`, `semester`, `year`) on delete restrict )
ENGINE=InnoDB DEFAULT CHARSET=utf8; INSERT INTO `takes` VALUES ('00000', 'CS-
347', '1', 'Fall', '2009', 'A+');

CREATE TABLE `prereq` ( `course_id` varchar(8) NOT NULL, `prereq_id` varchar(8)
NOT NULL, PRIMARY KEY (`course_id`, `prereq_id`), FOREIGN KEY (`course_id`)
REFERENCES `course`(`course_id`) on DELETE RESTRICT, FOREIGN KEY (`prereq_id`)
REFERENCES `course`(`course_id`) on DELETE RESTRICT ) ENGINE=InnoDB DEFAULT
CHARSET=utf8; INSERT INTO `prereq` VALUES ('BIO-301', 'BIO-101');

```

question 2

i) select title from courses where deptname='CSE' and credits=3;

Course_id	title	dept-name	credits
BI0-101	Intro. to Biology	CSE	3

ii) select totcredit from student where id=12345;

id	name	dept-name	tot-cred
1234	ShinHwan Kang	CSE	100

iii) select name from instructor where salary between 40000 and 90000;

id	name	dept-name	Salary
10101	Srinivasan	Comp Sci	40000
10102	Srikant	Comp Sci	90000

iv) alter table department add deptname varchar(20);

->desc department;

Field	Type	Null	Key	Default	Extra
deptname	Varchar(20)	NO		NULL	
building	varchar(15)			NULL	
budget	decimal(12, 2)			NULL	

v) alter table student drop column DateofBirth ;

column does not exist