

## 1- Department Table

```
-- CREATE TABLE Department(  
  
-- DEPARTMENT_ID          INT          PRIMARY KEY,  
-- DEPARTMENT_NAME        varchar(20)  
  
-- );  
  
-- INSERT INTO DEPARTMENT(DEPARTMENT_ID , DEPARTMENT_NAME)  
-- VALUES  
  
-- (1001,          'CS'),  
-- (1002,          'CE'),  
-- (1003,          'BBA'),  
-- (1004,          'EE'),  
-- (1005,          'ARTS'),  
-- (1006,          'ME'),  
-- (1007,          'MBBS'),  
-- (1008,          'PHOTOGRAPHY');
```

### Output:

	DEPARTMENT_ID	DEPARTMENT_NAME
►	1001	CS
	1002	CE
	1003	BBA
	1004	EE
	1005	ARTS
	1006	ME
	1007	MBBS
	1008	PHOTOGRAPHY

## 2- Personal\_Detail Table

```
-- INSERT INTO PERSONAL_DETAIL
-- (
-- Reg_no, student_Name, student_cast, student_age, gender, student_Email, student_number, student_status, religion,
-- Father_Name, Father_CNIC, Father_job, Father_phone_number, Father_salary, siblings, city, province,
-- dept_id
-- )

-- VALUES

-- (320203, 'NIAZ-AHMED', 'MEMON', 17, 'M', 'niazmwofn@gmail.com',
-- '0331-4512124', 'SINGLE', 'ISLAM', 'NAZEER', '41101-4392143-7', 'Manager',
-- '0333-1243500', 50000, 3, 'KARACHI', 'SINDH', 1001),

-- (341209, 'DANIYAL-SAIF', 'MEMON', 20, 'M', 'daniyal@gmail.com',
-- '0321-4512321', 'SINGLE', 'ISLAM', 'SAIF', '41101-4395353-7', 'CHEMIST',
-- '0313-1267560', 150000, 4, 'KARACHI', 'SINDH', 1001),

-- (330201, 'KASHIF', 'GUJJAR', 22, 'M', 'kashifmn@gmail.com',
-- '0331-4567824', 'MARRIED', 'ISLAM', 'GHAFUR', '41101-4334533-7', 'ENGINEER',
-- '0313-1243599', 60000, 3, 'MULTAN', 'PUNJAB', 1001),

-- (314143, 'ADNAN', 'KHATTAK', 24, 'M', 'adnsnm@gmail.com',
-- '0331-1250504', 'MARRIED', 'ISLAM', 'AHMED', '41101-5014143-7', 'TEACHER',
-- '0333-1225600', 80000, 6, 'ISLAMABAD', 'PUNJAB', 1002),

-- (150603, 'SHAHROZ', 'SAYED', 20, 'M', 'sayedsh@gmail.com',
-- '0321-6516164', 'SINGLE', 'ISLAM', 'ALI', '41101-5491233-8', 'MAJOR',
-- '0343-1649599', 90000, 3, 'ISLAMABAD', 'PUJAB', 1002),

-- (250203, 'AHMED', 'RAJPUT', 21, 'M', 'ahmedme@gmail.com',
-- '0331-7572727', 'MARRIED', 'ISLAM', 'ARSHAD', '41101-4888884-8', 'SALESMAN',
-- '0333-1212502', 15000, 2, 'SUKKUR', 'SINDH', 1003),

-- (720203, 'RAFAY', 'ANAN', 23, 'M', 'rafay34@gmail.com',
-- '0331-5011414', 'MARRIED', 'ISLAM', 'AYAZ', '41101-4777773-7', 'DOCTOR',
-- '0333-4545455', 45000, 4, 'HYDERABADD', 'SINDH', 1003),

-- (880808, 'ANUS', 'MEMON', 20, 'M', 'anusmm21@gmail.com',
-- '0331-5050505', 'SINGLE', 'ISLAM', 'AZIZ', '41101-4444444-7', 'SHOPKEEPER',
-- '0333-3333332', 25000, 5, 'BADIN', 'SINDH', 1003),
```

```

-- (920203,      'ARIF',      'JAFFRI',    21,      'M',      'arifm12@gmail.com',
-- '0331-1234567', 'SINGLE',    'ISLAM',    'RAHIM',  '41101-4123456-7' , 'CLERK',
-- '0333-0987654' , 20000 ,      '3',      'LAHORE',  'PUNJAB', 1004),

-- (110201,      'YAQOOB',    'MALIK',    22,      'M',      'yaqoob12@gmail.com',
-- '0331-1111114', 'MARRIED',  'ISLAM',    'ISMAIL', '41101-4311111-3' , 'BARRISTER',
-- '0333-1200000' , 50000 ,      3,      'MULTAN', 'PUNJAB', 1004),

-- (222223,      'BALAJ',     'RIND',     23,      'M',      'balajm56@gmail.com',
-- '0331-4544444', 'SINGLE',    'ISLAM',    'MAQSOD', '41101-4355155-5' , 'PROFESSOR',
-- '0333-1245600' , 50000 ,      2,      'QUETTA', 'BALUCHISTAN', 1005),

-- (460203,      'BASIT',     'MUGHAL',   22,      'M',      'abdulb70@gmail.com',
-- '0335-4555665', 'MARRIED',  'ISLAM',    'WAQAR',  '41101-4956433-7' , 'SCIENTIST',
-- '0333-6666124' , 150000 ,      6,      'FAISALABAD', 'PUNJAB', 1005),

-- (440808,      'AQSA',     'CHOUDRY',  21,      'F',      'alaqs78@gmail.com',
-- '0333-4553533', 'SINGLE',    'ISLAM',    'ASLAM',  '41101-4951413-1' , 'POLICE-OFFICER',
-- '0323-6666555' , 55000 ,      3,      'RAWALPINDI', 'PUNJAB', 1006),

-- (740209,      'MUSKAN',    'PATHAN',   18,      'F',      'muskank789@gmail.com',
-- '0317-4555777', 'SINGLE',    'ISLAM',    'ZAKA',   '41101-4252423-2' , 'COMPANY-INCHARGE',
-- '0311-6611624' , 200000 ,      4,      'MIRPURKHAS', 'SINDH', 1006),

-- (333344,      'BAKHTAWAR', 'MUGHAL',   23,      'F',      'bakhtawar@gmail.com',
-- '0343-4552225', 'MARRIED',  'ISLAM',    'DANIISH', '41101-4222233-0' , 'SALES-MAN',
-- '0333-6662222' , 100000 ,      6,      'GUJRAWALA', 'PUNJAB',1007),

-- (301287,      'NAYAB',     'KUMBHAR',  19,      'F',      'nayab78@gmail.com',
-- '0335-4550000', 'SINGLE',    'ISLAM',    'TAMoor',  '41101-4514433-9' , 'DOCTOR',
-- '0333-0099994' , 71000 ,      5,      'KALAT',   'BALUCHISTAN', 1007),

-- (440303,      'MISBHAAH',  'MUGHAL',   21,      'F',      'misbhah@gmail.com',
-- '0335-4555555', 'SINGLE',    'ISLAM',    'RIAZ',   '41101-1451450-2' , 'TEACHER',
-- '0333-0125124' , 85000 ,      6,      'NAWABSHAH', 'SINDH',1008),

-- (440203,      'AREESHA',   'AFRIDI',   18,      'F',      'arniaz75@gmail.com',
-- '0354-8787654', 'SINGLE',    'ISLAM',    'JAVED',  '41101-4955653-3' , 'BUSSINESS-MAN',
-- '0365-7654134' , 150000 ,      5,      'JAMSHORO', 'SINDH', 1008);

```

**OUTPUT:**

○ L.H.S

[illegible]

○ R.H.S

[illegible]



### 3- TEACHER DETAIL Table

```
-- INSERT INTO Teacher_Detail
-- (
-- Teacher_id,      Teacher_Name,      Grades,      Teacher_Email,      no_of_subjects,      doj
-- )values

-- ( 10,      'MR BILAL-AHMED',      18,      'ahmedbilal@gmail.com',      3,      '2017-12-11' ),
-- ( 20,      'MR WAHID-AHMED',      17,      'wahide34@gmail.com',      1,      '2018-11-10' ),
-- ( 30,      'MR HASART-AHMED',      18,      'hasart22@gmail.com',      2,      '2019-01-08' ),
-- ( 40,      'MR SAAD-Qaiser',      17,      'saad123@gmail.com',      1,      '2018-02-10' ),
-- ( 50,      'MISS RABIA',      16,      'rabiach12@gmail.com',      1,      '2019-12-11' ),
-- ( 60,      'DR: AYESHA',      18,      'ayesha12@gmail.com',      2,      '2016-11-01' ),
-- ( 70,      'MR ROZI-KHAN',      17,      'rozikhan@gmail.com',      1,      '2015-05-20' ),
-- ( 80,      'MISS MARYAM',      18,      'maryam78@gmail.com',      1,      '2018-11-01' ),
-- ( 90,      'MR WAQAS-KHAN',      16,      'waqaskhan@gmail.com',      1,      '2020-09-18' ),
-- ( 02,      'MISS MAHY-MUBEEN',      18,      'mahymaha@gmail.com',      2,      '2018-04-10' ),
-- ( 4,      'MR AHMED',      17,      'ahmed69@gmail.com',      1,      '2019-02-27' ),
-- ( 5,      'MR ABID',      16,      'ahmedabid@gmail.com',      1,      '2019-02-16' ),
-- ( 100,      'Dr ALMGIR',      18,      'alamgir21@gmail.com',      1,      '2015-12-22' ),
-- ( 55,      'Mrs ARFFA-RASHID',      16,      'arfaras21@gmail.com',      1,      '2019-06-22' ),
-- ( 95,      'MR ASFAND-YAR',      17,      'asfand78@gmail.com',      1,      '2019-06-12' );
```

### OUTPUT:

	Teacher_id	Teacher_Name	Grades	Teacher_Email	no_of_subjects	doj
►	2	MISS MAHY-MUBEEN	18	mahymaha@gmail.com	2	2018-04-10
	4	MR AHMED	17	ahmed69@gmail.com	1	2019-02-27
	5	MR ABID	16	ahmedabid@gmail.com	1	2019-02-16
	10	MR BILAL-AHMED	18	ahmedbilal@gmail.com	3	2017-12-11
	20	MR WAHID-AHMED	17	wahide34@gmail.com	1	2018-11-10
	30	MR HASART-AHMED	18	hasart22@gmail.com	2	2019-01-08
	40	MR SAAD-Qaiser	17	saad123@gmail.com	1	2018-02-10
	50	MISS RABIA	16	rabiach12@gmail.com	1	2019-12-11
	55	Mrs ARFFA-RASHID	16	arfaras21@gmail.com	1	2019-06-22
	60	DR: AYESHA	18	ayesha12@gmail.com	2	2016-11-01
	70	MR ROZI-KHAN	17	rozikhan@gmail.com	1	2015-05-20
	80	MISS MARYAM	18	maryam78@gmail.com	1	2018-11-01
	90	MR WAQAS-KHAN	16	waqaskhan@gmail.com	1	2020-09-18
	95	MR ASFAND-YAR	17	asfand78@gmail.com	1	2019-06-12
	100	Dr ALMGIR	18	alamgir21@gmail.com	1	2015-12-22

## 4- COURSE TABLE

```
-- INSERT INTO student_course

-- ( course_name ,      course_id ,      teacher_id ,      course_completed ,      course_credits,      dept_id
-- VALUES

-- ('PROGRAMMING',      100,      40,      'YES',      3,      1001)
-- ('ICT',      200,      10,      'YES',      3,      1002)
-- ('DISCRETE MATHS',      300,      100,      'YES',      3,      1002

-- ('ISLAMIAT',      400,      55,      'YES',      2,      1002)
-- ('COMMUNICATION SKILL' ,      500,      50,      'YES',      2,      1002)
-- ('CALCULUS I',      600,      30,      'YES',      3,      1003)

-- ('DIGITAL LOGIC DESIGN',      700,      5,      'YES',      3,      1003)
-- ('CALCULUS 2',      800,      30,      'YES',      3,      1004)
-- ('APPLIED PHYSICS',      900,      95,      'YES',      3,      1004)

-- ('E.ECONOMICS',      1000,      10,      'YES',      2,      1005)
-- ('PAK STUDIES',      50,      4,      'YES',      2,      1001)
-- ('LINEAR ALGEBRA',      150,      20,      'NO',      3,      1005)

-- ('COAL' ,      250,      10,      'NO',      3,      1006)

-- ('DATA STRUCTURE',      350,      60,      'NO',      3,      1006),
-- ('DATABASE',      450,      60,      'NO',      3,      1007),
-- ('T&BW',      550,      80,      'NO',      2,      1007),

-- ('COAL LAB',      650,      02,      'NO',      1,      1006),
-- ('ICT LAB',      750,      02,      'NO',      1,      1008 ),

-- ('DBMS LAB',      850,      90,      'yes',      1,      1008 ),
-- ('programming LAB',      950,      70,      'NO',      1 ,      1008);
```

## OUTPUT:

	course_name	course_id	teacher_id	course_completed	course_credits	Dept_id
▶	PAK STUDIES	50	4	YES	2	1001
	PROGRAMMING	100	40	YES	3	1001
	LINEAR ALGEBRA	150	20	NO	3	1005
	ICT	200	10	YES	3	1002
	COAL	250	10	NO	3	1006
	DISCRETE MATHS	300	100	YES	3	1002
	DATA STRUCTURE	350	60	NO	3	1006
	ISLAMIAT	400	55	YES	2	1002
	DATABASE	450	60	NO	3	1007
	COMMUNICATION SKILL	500	50	YES	2	1002
	T&BW	550	80	NO	2	1007
	CALCULUS I	600	30	YES	3	1003
	COAL LAB	650	2	NO	1	1006
	DIGITAL LOGIC DESIGN	700	5	YES	3	1003
	ICT LAB	750	2	NO	1	1008
	CALCULUS 2	800	30	YES	3	1004
	DBMS LAB	850	90	yes	1	1008
	APPLIED PHYSICS	900	95	YES	3	1004
	programming LAB	950	70	NO	1	1008
	E.ECONOMICS	1000	10	YES	2	1005
*	NULL	NULL	NULL	NULL	NULL	NULL

### 5- Student\_marks Table

```
-- INSERT INTO student_marks
-- (total_marks,          marks_obtained,          student_id)
-- VALUES
-- (50,          27,          320203),
-- (50,          28,          341209),
-- (50,          37,          330201),
-- (50,          47,          314143),
-- (50,          48,          250203),
-- (50,          50,          150603),
-- (50,          42,          720203),
-- (50,          36,          880808),
-- (50,          48,          920203),
-- (50,          41,          110201),
-- (50,          32,          222223),
-- (50,          39,          460203),
-- (50,          35,          440808),
-- (50,          30,          740209),
-- (50,          45,          333344),
-- (50,          44,          301287),
-- (50,          25,          440303),
-- (50,          48,          440203);
--
```



## OUTPUT:

	student_id	total_marks	marks_obtained
►	110201	50	41
	150603	50	50
	222223	50	32
	250203	50	48
	301287	50	44
	314143	50	47
	320203	50	27
	330201	50	37
	333344	50	45
	341209	50	28
	440203	50	48
	440303	50	25
	440808	50	35
	460203	50	39
	720203	50	42
	740209	50	30
	880808	50	36
	920203	50	48

## 6- Student society Table

```
-- INSERT INTO student_societies
-- (student_id,      society_name)
-- values

-- (110201,          'Media'),
-- (222223,          'Debate'),
-- (460203,          'Drama'),
-- (440808,          'Adventure'),
-- (740209,          'Drama'),
-- (333344,          'Adventure'),
-- (301287,          'Debate'),
-- (440203,          'Adventure'),
-- (320203,          'Sports'),
-- (341209,          'Drama'),
-- (330201,          'Sports'),
-- (314143,          'Literacy'),
-- (150603,          'Debate'),
-- (250203,          'Media'),
-- (720203,          'Drama'),
-- (880808,          'Literacy'),
-- (920203,          'Sports');
```

## OUTPUT:

	student_id	society_name
▶	110201	Media
	222223	Debate
	460203	Drama
	440808	Adventure
	740209	Drama
	333344	Adventure
	301287	Debate
	440203	Adventure
	320203	Sports
	341209	Drama
	330201	Sports
	314143	Literacy
	150603	Debate
	250203	Media
	720203	Drama
	880808	Literacy
	920203	Sports

# UPDATE COMMAND

## 1- Teacher detail Table

```
UPDATE Teacher_Detail SET no_of_subjects =2  
WHERE Teacher_id = 100
```

## OUTPUT:

	Teacher_id	Teacher_Name	Grades	Teacher_Email	no_of_subjects	doj
▶	2	MISS MAHY-MUBEEN	18	mahymaha@gmail.com	2	2018-04-10
	4	MR. AHMED	17	ahmed69@gmail.com	1	2019-02-27
	5	MR. ABID	16	ahmedabid@gmail.com	1	2019-02-16
	10	MR BILAL -AHMED	18	ahmedbilal@gmail.com	3	2017-12-11
	20	MR. WAHID-AHMED	17	wahide34@gmail.com	1	2018-11-10
	30	MR HASART-AHMED	18	hasart22@gmail.com	2	2019-01-08
	40	MR SAAD-Qaiser	17	saad123@gmail.com	1	2018-02-10
	50	MISS RABIA	16	rabiach12@gmail.com	1	2019-12-11
	55	Mrs ARFFA-RASHID	16	arfaras21@gmail.com	1	2019-06-22
	60	DR: AYESHA	18	ayesha12@gmail.com	2	2016-11-01
	70	MR ROZI-KHAN	17	rozikhan@gmail.com	1	2015-05-20
	80	MISS MARYAM	18	maryam78@gmail.com	1	2018-11-01
	90	MR WAQAS-KHAN	16	waqaskhan@gmail.com	1	2020-09-18
	95	MR ASFAND-YAR	17	asfand78@gmail.com	1	2019-06-12
	100	Dr ALMGIR	18	alamgir21@gmail.com	2	2015-12-22
★	NULL	NULL	NULL	NULL	NULL	NULL

## 2- Student\_course Table

```
UPDATE student_course SET teacher_id =100  
WHERE course_id = 700
```

## • OUTPUT

	course_name	course_id	teacher_id	course_completed	course_credits	Dept_id
▶	PAK STUDIES	50	4	YES	2	1001
	PROGRAMMING	100	40	YES	3	1001
	LINEAR ALGEBRA	150	20	NO	3	1005
	ICT	200	10	YES	3	1002
	COAL	250	10	NO	3	1006
	DISCRETE MATHS	300	100	YES	3	1002
	DATA STRUCTURE	350	60	NO	3	1006
	ISLAMIAT	400	55	YES	2	1002
	DATABASE	450	60	NO	3	1007
	COMMUNICATION SKILL	500	50	YES	2	1002
	T&BW	550	80	NO	2	1007
	CALCULUS I	600	30	YES	3	1003
	COAL LAB	650	2	NO	1	1006
	DIGITAL LOGIC DESIGN	700	100	YES	3	1003
	ICT LAB	750	2	NO	1	1008
	CALCULUS 2	800	30	YES	3	1004
	DBMS LAB	850	90	yes	1	1008
	APPLIED PHYSICS	900	95	YES	3	1004
	programming LAB	950	70	NO	1	1008
	E.ECONOMICS	1000	10	YES	2	1005
*	NULL	NULL	NULL	NULL	NULL	NULL

## 3- STUDENT MARKS

```
UPDATE student_marks SET marks_obtained = 40
WHERE student_id = 222223
```

## • OUTPUT



	student_id	total_marks	marks_obtained
▶	110201	50	41
	150603	50	50
	222223	50	40
	250203	50	48
	301287	50	44
	314143	50	47
	320203	50	27
	330201	50	37
	333344	50	45
	341209	50	28
	440203	50	48
	440303	50	25
	440808	50	35
	460203	50	39
	720203	50	42
	740209	50	30
	880808	50	36
	920203	50	48
*	NULL	NULL	NULL

#### 4- Personal detail Table

```
UPDATE PERSONAL_DETAIL SET dept_id = 1001
WHERE Reg_no = 110201
```

## OUTPUT

	Reg_no	student_Name	dept_id
▶	110201	YAQOOB	1001

## DELETE COMMAND

### student\_course TABLE

Delete a particular course from student course Table

```
DELETE FROM student_course WHERE course_id = 100
```

## OUTPUT:

After deleting there is no course exist in student\_course whose id is 100

	course_id	course_name
▶	50	PAK STUDIES
	150	LINEAR ALGEBRA
	200	ICT
	250	COAL
	300	DISCRETE MATHS
	350	DATA STRUCTURE
	400	ISLAMIAT
	450	DATABASE
	500	COMMUNICATION SKILL
	550	T&BW
	600	CALCULUS I
	650	COAL LAB
	700	DIGITAL LOGIC DESIGN
	750	ICT LAB
	800	CALCULUS 2
	850	DBMS LAB
	900	APPLIED PHYSICS
	950	programming LAB
	1000	E.ECONOMICS
*	NULL	NULL

## 2- Delete details of particular student

```
ALTER TABLE student_marks
```

```
ADD CONSTRAINT student_marks  
FOREIGN KEY (student_id)  
REFERENCES PERSONAL_DETAIL (Reg_no)  
ON DELETE CASCADE;
```

```
ALTER TABLE student_societies
```

```
ADD CONSTRAINT student_societies  
FOREIGN KEY (student_id)  
REFERENCES PERSONAL_DETAIL(Reg_no)  
ON DELETE CASCADE ;
```

When we delete a student from Personal\_Detail (Parent-Entity) its detail is Automatically delete from all the related Entity (Child-Entities).

For Example: when we delete or remove a student whose reg\_no is 330201 then its detail is remove from all child Entities (student\_societies, student\_marks ).

## DELET QUERY:

```
DELETE FROM  
PERSONAL_DETAIL  
WHERE Reg_no = 330201
```

## DISPLAY QUERY:

```
SELECT reg_no, student_Name  
FROM PERSONAL_DETAIL
```

## Output of Personal\_Detail :

There is no student is exist whose Reg\_no is 330201

	reg_no	student_Name
▶	110201	YAQOOB
	150603	SHAHROZ
	222223	BALAJ
	250203	AHMED
	301287	NAYAB
	314143	ADNAN
	320203	NIAZ-AHMED
	333344	BAKHTAWAR
	440203	AREESHA
	440303	MISBHAH
	440808	AQSA
	460203	BASIT
	720203	RAFAY
	740209	MUSKAN
	880808	ANUS
	920203	ARIF

## student\_marks Table

### DISPLAY QUERY:

```
SELECT * FROM student_marks
```

### OUTPUT:

There is no student is exist whose Reg\_no is 330201

	student_id	total_marks	marks_obtained
▶	110201	50	41
	150603	50	50
	222223	50	32
	250203	50	48
	301287	50	44
	314143	50	47
	320203	50	27
	333344	50	45
	440203	50	48
	440303	50	25
	440808	50	35
	460203	50	39
	720203	50	42
	740209	50	30
	880808	50	36
	920203	50	48
*	NULL	NULL	NULL

## student\_societies Table

### DISPLAY QUERY:

```
SELECT * FROM student_societies
```

## OUTPUT:

There is no student is exist whose Reg\_no is 330201

	student_id	society_name
▶	110201	Media
	222223	Debate
	460203	Drama
	440808	Adventure
	740209	Drama
	333344	Adventure
	301287	Debate
	440203	Adventure
	320203	Sports
	314143	Literacy
	150603	Debate
	250203	Media
	720203	Drama
	880808	Literacy
	920203	Sports

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