**Practice 1 :**

**Users Table:**

**Table Structure**

CREATE TABLE `users` (

`id` int(11) NOT NULL,

`username` varchar(60) DEFAULT NULL,

`firstname` varchar(60) DEFAULT NULL,

`surname` varchar(60) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

**Data:**

INSERT INTO `users` (`id`, `username`, `firstname`, `surname`) VALUES

(1, 'sathiya', 'SathiyaRaj', 'Prakash'),

(2, 'punitha', 'Punitha', 'Vasudevan');

**In Table:**

id username firstname surname

1 sathiya SathiyaRaj Prakash

2 punitha Punitha Vasudevan

**Address Table :**

**Table Structure**

CREATE TABLE `address` (

`id` int(11) NOT NULL,

`type` varchar(60) DEFAULT NULL,

`user\_id` int(11) DEFAULT NULL,

`city` varchar(60) DEFAULT NULL,

`street` varchar(60) DEFAULT NULL,

`country` varchar(60) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=latin1;

**Data:**

INSERT INTO `address` (`id`, `type`, `user\_id`, `city`, `street`, `country`) VALUES

(1, 'billing', 1, 'coimbatore', 'tamilnadu', 'india'),

(2, 'billing', 2, 'vellore', 'tamilnadu', 'india'),

(3, 'delivery', 1, 'chennai', 'tamilnadu', 'india'),

(4, 'delivery', 2, 'vellore\_ponnai', 'taminadu', 'india'),

(7, 'communication', 2, 'alandur', 'tamilnadu', 'india');

**In Table :**

id type user\_id city state country

1 billing 1 coimbatore tamilnadu india

2 billing 2 vellore tamilnadu india

3 delivery 1 chennai tamilnadu india

4 delivery 2 vellore\_ ponnai taminadu india

7 communication 2 alandur tamilnadu india

**Rewards Table:**

**Table Structure**

CREATE TABLE `rewards` (

`id` int(11) NOT NULL,

`user\_id` int(11) DEFAULT NULL,

`amount` double(4,2) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=latin1

**Data:**

INSERT INTO `rewards` (`id`, `user\_id`, `amount`) VALUES

(1, 1, 65.50),

(2, 2, 75.50),

(3, 1, 25.50),

(4, 2, 55.00);

**In Table:**

id user\_id amount

1 1 65.50

2 2 75.50

3 1 25.50

4 2 55.00

**Task 1**:

When we need to set unique for user id and type. For e.g. : User may have address type as billing address, communication address and delivery address at maximum of 1 of same address type.

**Syntax: ALTER TABLE** table\_name ADD **CONSTRAINT** constraint\_name **UNIQUE** (column1, column2, column n);

**Query 1**: ALTER TABLE address ADD CONSTRAINT same\_type UNIQUE (user\_id, type)

**Query 2:** ALTER TABLE `address` ADD PRIMARY KEY (`id`), ADD UNIQUE KEY `constraint\_name` (`user\_id`,`type`);

**Task 2: To get the maximum reward got by users :**

Select \* from users LEFT JOIN (select max(amount), id, user\_id from rewards GROUP BY rewards.user\_id) as reward ON users.id = reward.user\_id

**Task 3: To get the highest reward in total got by users:**

Select \* from users LEFT JOIN (select SUM(amount), id, user\_id from rewards GROUP BY rewards.user\_id) as reward ON users.id = reward.user\_id

**Task 4: To get the billing address and delivery address of the users:**

select

users.\*, ab.city as b\_city, ab.street as b\_state, ab.country as b\_country,

ad.city as d\_city, ad.street as d\_state, ad.country as d\_country

from users

LEFT JOIN address as ab ON ab.user\_id = users.id AND ab.type = 'billing'

LEFT JOIN address as ad ON ad.user\_id = users.id AND ad.type = 'delivery'

**Task 5: To write a view for the sql query (Task 4):**

CREATE VIEW user\_shipping\_details AS  
select

users.\*, ab.city as b\_city, ab.street as b\_state, ab.country as b\_country,

ad.city as d\_city, ad.street as d\_state, ad.country as d\_country

from users

LEFT JOIN address as ab ON ab.user\_id = users.id AND ab.type = 'billing'

LEFT JOIN address as ad ON ad.user\_id = users.id AND ad.type = 'delivery'

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