

MOCKSLACK

(Part-1)

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Naming Attributes:

Company_ID	A
Company_Name	B
Company_Admin	C
Channel_ID	D
Channel_Name	E
Channel_Admin	F
Email_ID	G
User_Name	H
Password	I
Designation	J
Contact Number	K
Skype_ID	L
Image_URL	M
Thread_name	N
Thread_type	O
Status	P
Time_stamp	Q
Sender_Email_ID	R
Receiver_Email_ID	S
Channel_ID	T
Comment	U
Block_ID	V
Email_ID_1	W
Email_ID_2	X
Reaction_ID	Y
Reactedby_Email_ID	Z
Star_ID	a
Sttared_by_Email_ID	b

Functional Dependencies:

A	->	BC
B	->	CA
D	->	EF
G	->	HIJKLM
AG	->	P
AN	->	OG
V	->	WX
QDR	->	SU
QAG	->	DU
a	->	NAQb

Assumption:

Assuming that a particular channel_comment can be identified only by the Time_stamp, Email_ID of the sender and Company_ID of the company in which the message has been sent.

Step-1:

Breaking RHS

A	->	B
A	->	C
B	->	C
B	->	A
D	->	E
D	->	F
L	->	G
G	->	H
G	->	I
G	->	J
G	->	K
G	->	L
G	->	M
AG	->	P
AN	->	O
AN	->	G

V	->	W
V	->	X
QDR	->	S
QDR	->	U
QAG	->	D
QAG	->	U
a	->	N
a	->	A
a	->	Q
a	->	b

Closures:

A^+ : {A,B,C};
 B^+ : {A,B,C}
 D^+ : {E,F}
 AG^+ : {A,B,C,G,P,H,I,J,K,L,M}
 AN^+ : {A,B,C,N,O,G,P,H,I,J,K,L,M}
 V^+ : {W,X}
 QDR^+ : {Q,D,R,S,U,E,F}
 QAG^+ : {Q,A,G,P,D,U,E,F,B,C,H,I,J,K,L,M};
 L^+ : {G,H,I,J,K,L,M}
 G^+ : {G,H,I,J,K,L,M}
 a^+ : {a,A,N,Q,b,B,C,O,G,P,H,I,J,K,L,M}

Removed Dependency:

A	->	C
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Step-2:

Breaking LHS.

No dependency removed.

A	->	B
B	->	C
B	->	A
D	->	E

D	->	F
L	->	G
G	->	H
G	->	I
G	->	J
G	->	K
G	->	L
G	->	M
AG	->	P
AN	->	O
AN	->	G
V	->	W
V	->	X
QDR	->	S
QDR	->	U
QAG	->	D
QAG	->	U
a	->	N
a	->	A
a	->	Q
a	->	b

Step-3:

Minimal Cover is

A	->	B
B	->	C
B	->	A
D	->	EF
L	->	G
G	->	HIJKLM
AG	->	P
AN	->	OG
V	->	WX
QDR	->	SU

QAG	->	DU
a	->	NAQb

Candidate Key:
RTVYZa.

Tables:

1. Channel_comment:

a. *Contains:*

Time_stamp, Company_ID, Channel_ID, Email_ID, Comment.

b. *Functional Dependencies:*

QAG	->	D
QAG	->	U

c. *Candidate Key:*
QAG

d. *Normalisation:*
In BCNF (as the LHS is superkey).

2. Company:

a. *Contains:*

Company_ID, Company_name, Company_admin

b. *Functional Dependencies:*

A	->	B
B	->	C
B	->	A

c. *Candidate Key:*
A,B.

d. *Normalization:*
In BCNF (as the LHS is superkey).

3. User:

a. *Contains:*

Email_ID, name, Password, Designation, Company_ID, Contact Number, Skype_ID, Image_URL.

b. Functional Dependencies:

L	->	G
G	->	H
G	->	I
G	->	J
G	->	K
G	->	L
G	->	M

c. Candidate Key:

G,L

d. Normalization:

In BCNF (as the LHS is superkey).

4. Threads:

a. Contains:

Company_ID, Thread_name, Thread_type, Email_ID.

b. Functional Dependency:

AN	->	O
AN	->	G

c. Candidate Key:

AN.

d. Normalization:

In BCNF (as the LHS is superkey).

5. Direct_Message:

a. Contains:

Time_stamp, Company_ID, Sender_Email_ID, Receiver_Email_ID,comment.

b. Functional Dependency:

QDR	->	S
QDR	->	U

c. *Candidate Key:*
QDR.

d. *Normalisation:*
In BCNF (as the LHS is superkey).

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