

Date: _____

Section:-

V8

Lecturer:-

Mian Ahmed

Assignment (Normalization)

Group Members:-

Saffi Sardar (742)

Mian M. Harris (718)

Ibra Shefig (684)



UMT



Faisal Copier & Stationary

Date: _____

Book store checkout

receiptID	IssueID	membershipID	bookname	no of books	issuedate
256	123	25417	Harry Potter	1	23-5-2005
456	224	35174	Fiction nonf	2	24-5-2005

duedate	Hotelmembershipid	discount	Bonic	weight
24-5-2024	True	0.25	1	2.54
25-5-2006	False	0.75	2	7.65

1st Normal Form:

receiptID	IssueID	membershipID	bookname	no of books	issue date	due date	Hotel membership
256	123	25417	Harry Potter	1	23-5-24	24-5-24	True
456	224	35174	Fiction	2	24-5-2005	25-5-2006	False
456	224	35174	nonf	2	24-5-2005	25-5-2006	False

discount	Bonic	weight
0.75	2	7.65
0.75	2	7.65

2nd Normal Form

Bid	Bookname	Hid	HotelMembership
-----	----------	-----	-----------------

Brid	receipt id	Bid
------	------------	-----

receiptID	IssueID	membershipID	no of books	issue date	due date	Hid	discount
Bonic	weight						

* Already in 3rd Normal Form



UMT



Faisal Copier & Stationery

Date: _____

Reservation Records

Reservation ID	Worker ID	check in	check out	Table no	no of person	nic
250	1	30-3-2004	30-6-2004	5	3	1
450	2	23-2-2004	27-3-2004	6	4	2

* Already in First Normal Form

* Already in Second Normal Form

* Already in Third Normal Form



UMT



Faisal Copier & Stationary

Date: _____

Child care logs

cid	age	gender	check-in time	check-out time
1	3	Male	12.00	15.00
2	4	Female	13.00	17.00

wid	phoneno
1	0323,0312
2	3012,5122

* First Normal Form

cid	age	gender	cin	cout	wid	Phone No.
1	3	Male	12.00	15.00	1	0323
1	3	Male	12.00	15.00	1	0312
2	4	Female	13.00	17.00	2	3012

* 2nd Normal Form (already)

* 3rd Normal Form

Gender	cid	age	gid	cin	cout	wid	Phone
gid	gender	1	1	12	15	1	
1	Male	2	4	2	13	17	2
2	Female						
Tid	rid	cid				Pid	Phone Num
1	1	1				1	0323
2	2	1				2	0312
3	3	2				3	3012



UMT



Faisal Copier & Stationary

Date: _____

Worker logs h/r/b

Log ID arrival time ^{departur} time $\frac{h}{b}$ wid $\frac{h}{b}$ chic

1 00.00 02.00 1. 1

2 12.00 15.00 2. 1

* Already in 1st NF

* " " 2nd "

* " " 3rd "

Date:

Worker Details h/r/b

<u>b</u> wname	<u>b</u> wid	<u>b</u> DOB	<u>b</u> address	<u>b</u> phone no	<u>b</u> designation	<u>b</u> is-active
Ahmed	1	30-5-2003	XLR	0333491662	Manager	True
Saffi	2	30-5-2004	LHR	0333491662 0333455	Peon	False

*1st Normal Form

<u>b</u> wname	<u>b</u> wid	<u>b</u> DOB	<u>b</u> address	<u>b</u> phone	<u>b</u> designation	<u>b</u> is-active
Ahmed	1	30.5.3	XLR	0333491662	Manager	True
Saffi	2	30.5.4	LHR	0333491662	Peon	False
Saffi	2	30.5.4	LHR	0333455	Peon	False

*2nd Normal Form

<u>b</u> wname	<u>b</u> wid	<u>b</u> DOB	<u>b</u> address	<u>b</u> dnl	<u>b</u> ianl	<u>d</u> dl	<u>d</u> designation
						1	Manager
						2	Peon
<u>b</u> ianl						<u>i</u> anl	<u>i</u> is-active
						1	False
						2	True
Tid	wid	Did		<u>p</u> , <u>l</u>	Phone		
1	1	1		1	0333491662		
2	2	1		2	0333455		
3	2	2					

* already in 3rd NF



UMT



Faisal Copier & Stationary

Date: _____

Gym log

gPcl cPn cut CCNk wID				
1	20.19	23.00	123	1
2	12.00	14.00	456	2

Spa log

sid PackageType CCNk wID				
1	Pedicure	456	1	
2	FaceCream	123	1	

* Already in 1st NF

* " " 2nd "

* " " 3rd "

* Already in First NF

* " " 2nd "

* 3rd Normal Form

main

sid	PType-id	CNIC	wID
1	1	456	1
2	2	123	1

Package

PType-id	PackageType
1	Pedicure
2	FaceCream



UMT



Faisal Copier & Stationary

Room logs

rid RoomNo RoomInventory CCNIC WID pid Cin Cout CCNK WID

1	43	Yes	123	1	1	20.00	24.00	123	2
---	----	-----	-----	---	---	-------	-------	-----	---

2	31	No	456	2	2	11.00	13.00	456	2
---	----	----	-----	---	---	-------	-------	-----	---

* Already in 1st NF

* Already in 2nd NF

* already in 1 NF

* " " " 2 "

* " " " 3 "

rid RoomNo CCNIC WID lid

lid	RoomInventory
1	Yes
2	No

* already in 3rd NF



UMT



Faisal Copier & Stationary

Drone Details

Drone id	Model	Type	Availability_Status
1	Heavy	X	True
2	Light	Y	False

* Already in First Normal Form

Second Normal Form

→ Model and type are repeated for drones

Model

MID	Model
1	Heavy

Type

Tid	Type
1	True

Drone Details

Drone id	Mid	Tid	Availability_Status
1	1	1	True
2	2	2	False

Avalibility_Status	AID	Avalibility_Status
True	1	False

Drone id	Mid	Tid	AID
1	1	1	1

* Already in third normal form



Date: _____

Drone ORDER DETAILS

LaunchID	DroneID	KorderID	ReceiptID	Weight	Price	BCNIC
----------	---------	----------	-----------	--------	-------	-------

223	1	1	256	2.54	1000	1
456	2	2	450	7.56	2000	2

rcnic	Address	DeliveryStatus (is-active)
-------	---------	----------------------------

1	XRZ	True
2	LXR	False

* Already in First Normal Form

SECOND NORMAL FORM

DID	DeliveryStatus
-----	----------------

LaunchID	DroneID	KorderID	ReceiptID	Weight	Price	BCNIC	Rcnic
----------	---------	----------	-----------	--------	-------	-------	-------

* Already in Third normal Form



UMT



Faisal Copier & Stationary

Date: _____

Worker Reviews - h/r/b

B

P

ReviewID	Totalpoints	Reviewscale	WID
1	71	4	1
2	89	2	2

* Already in 1st Normal Form

* " " 2nd " "

* " " 3rd " "



UMT



Faisal Copier & Stationary

Date: _____

Membership Record-B

MembershipID	address	Is-actPve	BCNIC	CNIC
25417	118 B1	Yes	1	1
35174	200 E1	Yes	2	NULL

* Already In First Normal Form

* Already " Second " "

* Already " Third " "



UMT



Faisal Copier & Stationary

Date: _____

KitchenInventory-OrderFeed - r

		per	per	per	per	per	per
k-orderid	orderstatus	items	price	weight	StockID	Itemname	Quantity
1	Pending	Aloo, egg	2,3	150,200	1	apple	7
2	Completed	Spinach	5	100	2	mango	10

1st Normal Form

		per	per	per	per	per	per
k-orderid	orderstatus	items	price	weight	stockid	itemname	Quantity
1	Pending	Aloo	2	150	1	apple	7
1	Pending	egg	3	200	2	mango	7
2	Completed	spinach	5	100	2	mango	10

Kitchen Order Feed

k-orderid	orderstatus	items	price	weight
Kitchen inventory				
stockid	itemname	Quantity		

2ND NORMAL FORM

Kitchen order feed

k-orderid	orderstatus	items	price	weight
Kitchen inventory				
stockid	itemname	Quantity		

Kitchen inventory - Order feed

k-stockid	k-orderid	stockid
-----------	-----------	---------

* Already in 3rd Normal Form



UMT



Faisal Copier & Stationary

Date: _____

Customer details - r

rcnic	rname	no.ofmembers	PhoneNum	email	OrderMethod	is-active
352	Ali	5	030284 031284	s@gmail	Physical	True
451	Sam	6	1234	a@gmail	Online	False

1st Normal Form

rcnic	rname	no.ofmembers	Phone num	email	OrderMethod	is-active
352	Ali	5	030284	s@gmail	Physical	True
352	Ali	5	031284	s@gmail	Physical	True
451	Sam	6	1234	a@gmail	Online	False

2nd Normal Form

pid	phonenum
-----	----------

pcid	Pid	rcnic
------	-----	-------

Oid	ORDERMETHOD
-----	-------------

Aid	is-active
-----	-----------

rcnic	rname	no.ofmembers	email	Oid	Aid
-------	-------	--------------	-------	-----	-----

* Already in Third Normal Form



UMT



Faisal Copier & Stationary

Date: _____

Bookstore inventory

BookID	Bookname	Bookprice	Number of books	Book type	is-active books
1	FJK Book	25	91	Terror	True
2	PES Book	32	101	Fiction	True

* Already In 1st NF

* Second Normal Form (already)

* Third NF

Bookid	Bookname	Bookprice	NoofBooks	B1id	catid	B1id	Booktype	catid	isactive
						1	Horror	1	True
						2	Fiction	2	False

* Third Normal Form (already)



UMT



Faisal Copier & Stationary

Date: _____

Customer details h

ccnic	cname	no-of-members	RoomType	No-of-rooms	Days-of-duration
123	Mian	7	Deluxe, Master	2	7
456	Saff.	8	Single	4	8

phoneno	Reservationdate	email	address	DOB	servicecharge	is-active c-h
12345678	12-2-19	m@email	108,F1	18/8/2018	150	True
8765432	13-1-17	s@email	211,S1	12/11/2000	75	False

First Normal Form

ccnic	cname	nofmembers	RoomType	No-of-rooms	Days-of-duration
123	Mian	7	Deluxe	2	7
123	Mian	7	Master	2	7

phoneno	Reservationdate	email	address	DOB	servicecharge	is-active c-h
1234	12-2-19	m@email	108F1	18/8/2018	150	True
1234	12-2-19	m@email	108F1	18/8/2018	150	True

SECOND NORMAL FORM

RoomType

RID	Room Type
X	

ccnic	cname	no of members	RID	N of rooms	Days of duration
phoneno	Reservationdate	email	address	DOB	servicecharge
TCID	cnic	RID			



UMT



Faisal Copier & Stationary

Date: _____

cnic	name	no of member	7000	no of rooms	Days of duration	
phone no	reservation date	email	address	DOB	Service charges	is active

3rd Normal Form

→ Service charges can be calculated through Days of duration and no of rooms and type of room

Total Price

Prid	TCID	no of rooms	Day of duration
------	------	-------------	-----------------

MUSLIM LAMPSHA QUADRI



UMT



Faisal Copier & Stationary

Date: _____

Checkout Record-h

ReceiptID Checkoutprice CCNIC

7 2000
8 2000

ReceiptID Price Icnic kardID CCNIC

9 1000
10 2000

* Already in 1st Normal Form

* " " 2nd Normal Form

* " " 3rd Normal Form



UMT



Faisal Copier & St

Membership Status-h

MembershipID Restaurant Membership Bookstore Membership is-active CCNIC

1571	True	True	True	1
2178	False	True	False	2

* Already in First Normal Form

* Already in Second Normal form

* Already in Third Normal Form



UMT



Faisal Copier & Stationery

Date: _____

Customer details - BS

bcnic	bname	PhoneNum	Address	Email	OrderMethod	is-active
S18	Rajq	03123	187P1	r@gmail	Online	True
712	Fara	1234	208E1	f@gmail	Physical	False

* 1st Normal Form

bcnic	bname	PhoneNum	Address	Email	OrderMethod	is-active
S18	Rajq	03123	187P1	r@gmail	Online	True
S18	Rajq	04123	187P1	r@gmail	Online	True
712	Fara	1234	208E1	f@gmail	Physical	False

* 2nd Normal Form ()

bcnic	bname	Address	Email	OrderMethod	is-active

Tid	bcnic	Pid	Pid	PhoneNum
1	S18	1	1	03123
2	S18	2	2	04123
3	712	3	3	1234

* 3rd Normal Form

bcnic	bname	Address	Email	oid	ord	oid	OrderMethod	aid	is-active
				1	Online	1	True		
				2	Physical	2	False		

Tid	bcnic	Pid	Pid	PhoneNum



Date: _____

b
f Report Worker Salaries - h/r/b/s

<u>SalaryID</u>	<u>WorkedHours</u>	<u>BonusAchieved</u>	<u>SalaryTotal</u>	<u>WID</u>	<u>LogID</u>	<u>ReviewID</u>
1	50	5	6	256	1	1
2	70	6	7	427	2	2

* Already in 1st NF

* Already in 2nd NF

* 3rd NF

Report

<u>SalaryID</u>	<u>WID</u>	<u>LogID</u>	<u>ReviewID</u>	<u>Whid</u>	<u>Whid</u>	<u>WorkHours</u>	<u>Bonus</u>	<u>SalaryTotal</u>