Happy Supplies Part Warehous

customerName	customerNumber	customerType	date	time	employee	partNumber	name	type	cageCode	quantityOrdered	unitPrice
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10654	FloatControl	plumbing	G413	4	12
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10456	Modulator	Electrical	H433	3	7
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10776	Hose Assembly	Plumbing	G413	9	7
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10657	Float Assembly	Plumbing	G413	5	10

Cutomer Number is unique Part number represent the number for a specific type of SKU/part One employee will serve the whole order and will help one customer at a time (will not be serving both customer same time)

Customer type is bind to customer number Unit price is ony determined by specific part, won't change (no discount for orders)

atttribute: all headers are attribute Primary key: customer number, part number, date, time Candidate key: customer number, date, time, part number Functional dependency: customer number 🔁 cutomer type, customer name part number 🔁 name, type, cage code, unit price

(customer number, part number, date, time) 🛂 quantity ordered (customer number, date, time) 🔁 employee

Transitive dependency:

What normal form:

customerName(PK)	customerNumber	customerType	date(PK)	time(PK)	employee	partNumber	name	type	cageCode	quantityOrdered	unitPr
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10654	FloatControl	plumbing	G413	4	12
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10456	Modulator	Electrical	H433	3	7
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10776	Hose Assembly	Plumbing	G413	9	7
jeffPeterson	HG54587	consumer	7/1/2024	10:30am	DHarisson	10657	Float Assembly	Plumbing	G413	5	10

transfer to 2NF because there are partial dependency



cageCode unitPrice

G413

G413

7/1/2024 10:30am DHarisson

 customerNumber(PK,FK)
 date(PK,FK)
 time(PK,FK)
 partNumber(PK,FK)
 quantityOrdered

10:30am

10:30am

10:30am

10:30am

part

order

order_detail

7/1/2024

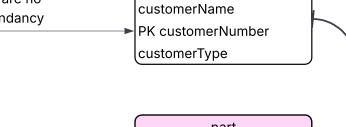
7/1/2024

7/1/2024

7/1/2024

 customerNumber(PK,FK)
 date(PK)
 time(PK)
 employee

type



cageCode

unitPrice

customer place order_detail PK customerNumber ✓ PK customerNumber consist of PK date PK time part PK partNumber (employee PK partNumber quantityOrdered name

included in

partNumber(PK) name Modulator 10776 Hose Assembly Plumbing Float Assembly Plumbing order

> customerNumber(PK,FK)
> date(PK)
> time(PK)
> HG54587 7/1/2024 10:30am

> > order_detail

customer

part

customerName customerNumber(PK) customerType HG54587

ustomerNumber(PK,FK)	date(PK,FK)	time(PK,FK)	partNumber(PK,FK)	quantityOrdered
HG54587	7/1/2024	10:30am	10654	4
HG54587	7/1/2024	10:30am	10456	3
HG54587	7/1/2024	10:30am	10776	9
HG54587	7/1/2024	10:30am	10657	5

staff

pat

branch

PK staffNo

PK patNo

patName

PK branchNo

therapistName

Panacea Mental Health Corporation

staffNo	therapistName	patNo	patName	appointmentDateTime	branchNo
S1011	Fred Smith	P100	Lily White	9/12/2022, 10:00	M15
S1011	Fred Smith	P105	Jill Baker	9/12/2022, 12:00	M15
S1024	Heidi Pierce	P108	Andy McKee	9/12/2022, 10:00	Q10
S1024	Heidi Pierce	P108	Andy McKee	9/14/2022, 14:00	Q10
S1032	Richard Levin	P105	Jill Baker	9/14/2022, 16:30	M15
S1032	Richard Levin	P110	Jimmy Winter	9/15/2022, 18:00	B13

Assumption: staff number is unique for every staff, branch number is also unique, pat number is also unique, A therapist may work at many branches across days, but on any given day a therapist works at exactly one branch

atttribute: all headers are attribute Primary key: (staffNo, appointmentDateTime) Candidate key: (staffNo, appointmentDateTime) Functional dependency: staffNo 🔁 therapistName patNo 🖸 patNme

(staffNo, appointmentDateTime) 🔁 branchNo, patNo Transitive dependency:

What normal form:

raw table not belong to any normal form

	staffNo(PK)	therapistName	patNo	patName	appointmentDate(PK)	branchNo	appointmentTime
	S1011	Fred Smith	P100	Lily White	9/12/2022	M15	10:00
	S1011	Fred Smith	P105	Jill Baker	9/12/2022	M15	12:00
	S1024	Heidi Pierce	P108	Andy McKee	9/12/2022	Q10	10:00
	S1024	Heidi Pierce	P108	Andy McKee	9/14/2022	Q10	14:00
	S1032	Richard Levin	P105	Jill Baker	9/14/2022	M15	16:30
	S1032	Richard Levin	P110	Jimmy Winter	9/15/2022	B13	18:00

HG54587

HG54587

HG54587

partNumber(PK)

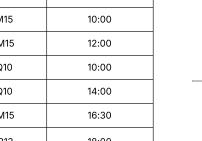
name

Modulator

10776 Hose Assembly Plumbing

10657 Float Assembly Plumbing

FloatControl plumbing



10654

10456

10776

10657

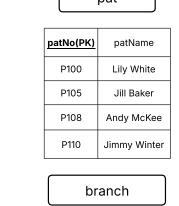
9

transfer to 3NF because

there is transitive

dependancy





branchNo(PK) M15 Q10 B13

employee

contract

staffNo(PK) therapistName S1011 Fred Smith S1024 Heidi Pierce S1032 Richard Levin

staff

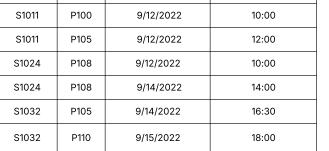
staffNo(PK) patNo appointmentDate(PK) appointmentTime(PK) S1011 P105 S1024 P108 S1024 P108

pat				
patName				
Lily White				
Jill Baker				
Andy McKee				
Jimmy Winter				

S1024 S1032 S1032 9/15/2022 B13

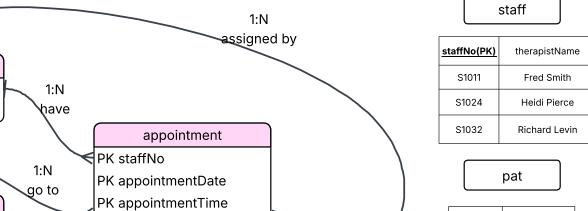
transfer directly to 3NF because there are no

transitive dependancy



appointment

staff_assignment						
staffNo(PK FK)	appointmentDate(PK FK)	branchNo(FK)				
S1011	9/12/2022	M15				
S1024	9/12/2022	Q10				
S1024	9/14/2022	Q10				
S1032	9/14/2022	M15				

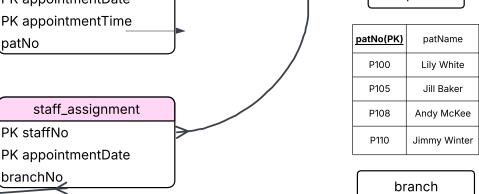


PK staffNo

branchNo

1:N

assigned by



branchNo(PK) M15 Q10 B13



appointment

staff_assignment

9/14/2022

9/15/2022

16:30

18:00

S1032 P105

S1032 P110

branchNo(F	appointmentDate(PK FK)	staffNo(PK FK)
M15	9/12/2022	S1011
Q10	9/12/2022	S1024
Q10	9/14/2022	S1024
M15	9/14/2022	S1032
B13	9/15/2022	S1032

Maid Better temp agency

eNo	contractNo	hours	eName	eventNo	eventLoc
1135	C1024	16	Smith J	H25	Quenns
1057	C1024	24	Hocine D	H25	Queens
1068	C1025	28	White T	H4	Yonkers
1135	C1025	15	Smith J	H4	Yonkers
1135	C1026	10	Smith J	H25	Queens

Assumption: eNo uniquely identifies each employee, contractNo is also unique pointing to one event, an employee can work on many contracts; a contract can have many employees

atttribute: all headers are attribute Primary key: (eNo, contractNo) Candidate key: (eNo, contractNo) Functional dependency: eNo D eName

contractNo 🔂 eventNo eventNo 🔁 eventLoc (contractNo, eNo) 🔁 hours Transitive dependency:

contractNo 🛂 eventNo eventNo 🛂 eventLoc contractNo 🔁 eventNo🔁 eventLoc What normal form:

transfer to 2NF because there are partial dependency

1057 C1024 24 Hocine D H25 Queens

1135 C1026 10 Smith J H25 Queens

C1025 28 White T H4 Yonkers

C1025 15 Smith J H4 Yonkers

	contract	
contractNo(PK)	eventNo	eve
C1024	H25	Qu
C1025	H4	Yor
C1026	H25	Qu

employee eNo(PK) eName 1057 Hocine D

actNo(PK)	eventNo	eventLoc
C1024	H25	Queens
C1025	H4	Yonkers
C1026	H25	Queens

employee_contract

1057

1068

1135

, , , , , , , , , , , , , , , , , , ,	110410	
C1024	16	
C1024	24	
C1025	28	
C1025	15	
C1026	10	

No(FK,PK)	hours
1024	16
1024	24
1025	28
1025	15

eNo(PK) eName 1135 Smith J 1057 Hocine D 1068 White T

contractNo(PK)	eventNo(F
C1024	H25
C1025	Н4
C1026	H25
Ovo	nt



employee_contract

eNo(FK,PK)	contractNo(FK,PK)	hours
1135	C1024	16
1057	C1024	24
1068	C1025	28
1135	C1025	15
1135	C1026	10

employee	1.11	
PK eNo	1:N has	
eName	employee_contract	
	1:N PK eNo	
contract	subject to PK contractNo	
PK contractNo	hours	
eventNo	J	
1:N		
contain	ns event	
	PK eventNo	
	eventloc	