

Name : Faricha Aulia
 Class / Num : 1I TI / 08
 NIM : 2141720155

1. Normalization

1NF:

num_project	name_project	num_employee	name_employee	street_address	city	postal_code	num_jobclass	name_jobclass	chr_per_hour	hours_billed
15	Evergreen	103	June E. Arbough	Pazmaniteng 24-9	Vienna	A-1020	E01	Elec. Engineering	€ 84.50	23.8
15	Evergreen	101	John G. News	Weihburggasse 26	Vienna	A-1020	E02	Database Designer	€ 105.00	19.4
15	Evergreen	105	Alice K. Johnson	Pazmaniteng 25-19	Vienna	A-1020	E02	Database Designer	€ 105.00	35.7
15	Evergreen	106	William Smithfield	Gartenweg 8	Rafing	A-1010	E03	Programmer	€ 35.75	12.6
15	Evergreen	102	David H. Senior	Wiener Hauptstraße 10/A/4/1	Wien	A-1014	E04	System Analyst	€ 96.75	23.8
18	Amber Wave	114	Annelise Jones	Pazmaniteng 1-1	Vienna	A-1020	E05	Application Design	€ 48.10	24.6
18	Amber Wave	118	James J. Frommer	Gartenweg 20	Rafing	A-1010	E06	General Support	€ 18.36	45.3
18	Amber Wave	104	Anne K. Ramoras	Sterzinger Straße 1	Innsbruck	A-6020	E04	System Analyst	€ 96.75	32.4
18	Amber Wave	112	Darlene M. Smithson	Liebiggasse 5/1/5	Wien	A-1014	E07	DSS Analyst	€ 45.95	44
22	Einsten	105	Alice K. Johnson	Pazmaniteng 25-19	Vienna	A-1020	E02	Database Designer	€ 105.00	64.7
22	Einsten	104	Anne K. Ramoras	Sterzinger Straße 1	Innsbruck	A-6020	E04	System Analyst	€ 96.75	48.4
22	Einsten	113	Delbert K. Joenbrood	Liebiggasse 3/1/10	Wien	A-1014	E05	Application Design	€ 48.10	23.6
22	Einsten	111	Geoff B. Wabash	Krakaudorf 32	Krakaudorf	A-8854	E08	Clerical Support	€ 26.87	22
22	Einsten	106	William Smithfield	Gartenweg 8	Rafing	A-1010	E03	Programmer	€ 35.75	12.8
25	Phoenix	107	Maria D. Alonzo	Krakaudorf 11	Krakaudorf	A-8854	E03	Programmer	€ 35.75	24.6
25	Phoenix	115	Travis B. Bawangi	Liebiggasse 3/1/10	Wien	A-1014	E04	System Analyst	€ 96.75	45.8
25	Phoenix	101	John G. News	Weihburggasse 26	Vienna	A-1020	E02	Database Designer	€ 105.00	56.3
25	Phoenix	114	Annelise Jones	Pazmaniteng 1-1	Vienna	A-1020	E05	Application Design	€ 48.10	33.1
25	Phoenix	108	Ralph B. Washington	Krakaudorf 22	Krakaudorf	A-8854	E04	System Analyst	€ 96.75	23.6
25	Phoenix	118	James J. Frommer	Gartenweg 20	Rafing	A-1010	E06	General Support	€ 18.36	30.5
25	Phoenix	112	Darlene M. Smithson	Liebiggasse 5/1/5	Wien	A-1014	E07	DSS Analyst	€ 45.95	41.4

2 NF:

num_project	name_project
15	Evergreen
18	Amber Wave
22	Einsten
25	Phoenix

num_employee	name_employee	street_address	city	postal_code
103	June E. Arbough	Pazmaniteng 24-9	Vienna	A-1020
101	John G. News	Weihburggasse 26	Vienna	A-1020
105	Alice K. Johnson	Pazmaniteng 25-19	Vienna	A-1020
106	William Smithfield	Gartenweg 8	Rafing	A-1010
102	David H. Senior	Wiener Hauptstraße 10/A/4/1	Wien	A-1014
114	Annelise Jones	Pazmaniteng 1-1	Vienna	A-1020
118	James J. Frommer	Gartenweg 20	Rafing	A-1010
104	Anne K. Ramoras	Sterzinger Straße 1	Innsbruck	A-6020
112	Darlene M. Smithson	Liebiggasse 5/1/5	Wien	A-1014
105	Alice K. Johnson	Pazmaniteng 25-19	Vienna	A-1020
104	Anne K. Ramoras	Sterzinger Straße 1	Innsbruck	A-6020
113	Delbert K. Joenbrood	Liebiggasse 3/1/10	Wien	A-1014
111	Geoff B. Wabash	Krakaudorf 32	Krakaudorf	A-8854
106	William Smithfield	Gartenweg 8	Rafing	A-1010
107	Maria D. Alonzo	Krakaudorf 11	Krakaudorf	A-8854
115	Travis B. Bawangi	Liebiggasse 3/1/10	Wien	A-1014
101	John G. News	Weihburggasse 26	Vienna	A-1020
114	Annelise Jones	Pazmaniteng 1-1	Vienna	A-1020
108	Ralph B. Washington	Krakaudorf 22	Krakaudorf	A-8854
118	James J. Frommer	Gartenweg 20	Rafing	A-1010
112	Darlene M. Smithson	Liebiggasse 5/1/5	Wien	A-1014

num_jobclass	name_jobclass	chr_per_hour
E01	Elec. Engineering	€ 84.50
E02	Database Designer	€ 105.00
E02	Database Designer	€ 105.00
E03	Programmer	€ 35.75
E04	System Analyst	€ 96.75
E05	Application Designer	€ 48.10
E06	General Support	€ 18.36
E04	System Analyst	€ 96.75
E07	DSS Analyst	€ 45.95
E02	Database Designer	€ 105.00
E04	System Analyst	€ 96.75
E05	Application Designer	€ 48.10
E08	Clerical Support	€ 26.87
E03	Programmer	€ 35.75
E03	Programmer	€ 35.75
E04	System Analyst	€ 96.75
E02	Database Designer	€ 105.00
E05	Application Designer	€ 48.10
E04	System Analyst	€ 96.75
E06	General Support	€ 18.36
E07	DSS Analyst	€ 45.95

num_project	num_employee	num_jobclass	hours_billed
15	103	E01	23.8
15	101	E02	19.4
15	105	E02	35.7
15	106	E03	12.6
15	102	E04	23.8
18	114	E05	24.6
18	118	E06	45.3
18	104	E04	32.4
18	112	E07	44
22	105	E02	64.7
22	104	E04	48.4
22	113	E05	23.6
22	111	E08	22
22	106	E03	12.8
25	107	E03	24.6
25	115	E04	45.8
25	101	E02	56.3
25	114	E05	33.1
25	108	E04	23.6
25	118	E06	30.5
25	112	E07	41.4

3NF:

num_project	name_project
15	Evergreen
18	Amber Wave
22	Einsten
25	Phoenix

num_employee	name_employee	street_address
101	John G. News	Weihburggasse 26
102	David H. Senior	Wiener Hauptstraße 10/A/4/15
103	June E. Arbough	Pazmaniteng 24-9
104	Anne K. Ramoras	Sterzinger Straße 1
105	Alice K. Johnson	Pazmaniteng 25-19
106	William Smithfield	Gartenweg 8
107	Maria D. Alonzo	Krakaudorf 11
108	Ralph B. Washington	Krakaudorf 22
111	Geoff B. Wabash	Krakaudorf 32
112	Darlene M. Smithson	Liebiggasse 5/1/5
113	Delbert K. Joenbrood	Liebiggasse 3/1/10
114	Annelise Jones	Pazmaniteng 1-1
115	Travis B. Bawangi	Liebiggasse 3/1/10
118	James J. Frommer	Gartenweg 20

num_jobclass	name_jobclass	chr_per_hour
E01	Elec. Engineering	€ 84.50
E02	Database Designer	€ 105.00
E03	Programmer	€ 35.75
E04	System Analyst	€ 96.75
E05	Application Designer	€ 48.10
E06	General Support	€ 18.36
E07	DSS Analyst	€ 45.95
E08	Clerical Support	€ 26.87

num_project	num_employee	num_jobclass	hours_billed
15	103	E01	23.8
15	101	E02	19.4
15	105	E02	35.7
15	106	E03	12.6
15	102	E04	23.8
18	114	E05	24.6
18	118	E06	45.3
18	104	E04	32.4
18	112	E07	44
22	105	E02	64.7
22	104	E04	48.4
22	113	E05	23.6
22	111	E08	22
22	106	E03	12.8
25	107	E03	24.6
25	115	E04	45.8
25	101	E02	56.3
25	114	E05	33.1
25	108	E04	23.6
25	118	E06	30.5
25	112	E07	41.4

city	street_address	postal_code
Vienna	Pazmaniteng 24-9	A-1020
Vienna	Weihburggasse 26	A-1020
Vienna	Pazmaniteng 25-19	A-1020
Vienna	Pazmaniteng 1-1	A-1020
Rafing	Gartenweg 8	A-1010
Rafing	Gartenweg 20	A-1010
Wien	Wiener Hauptstraße 10/A/4	A-1014
Wien	Liebiggasse 5/1/5	A-1014
Wien	Liebiggasse 3/1/10	A-1014
Innsbruck	Sterzinger Straße 1	A-6020
Krakaudorf	Krakaudorf 32	A-8854
Krakaudorf	Krakaudorf 11	A-8854
Krakaudorf	Krakaudorf 22	A-8854

name_project	name_employee	name_jobclass
Evergreen	June E. Arbough	Elec. Engineering
Evergreen	John G. News	Database Designer
Evergreen	Alice K. Johnson	Database Designer
Evergreen	William Smithfield	Programmer
Evergreen	David H. Senior	System Analyst
Amber Wave	Annelise Jones	Application Designer
Amber Wave	James J. Frommer	General Support
Amber Wave	Anne K. Ramoras	System Analyst
Amber Wave	Darlene M. Smithson	DSS Analyst
Einsten	Alice K. Johnson	Database Designer
Einsten	Anne K. Ramoras	System Analyst
Einsten	Delbert K. Joenbrood	Application Designer
Einsten	Geoff B. Wabash	Clerical Support
Einsten	William Smithfield	Programmer
Phoenix	Maria D. Alonzo	Programmer
Phoenix	Travis B. Bawangi	System Analyst
Phoenix	John G. News	Database Designer
Phoenix	Annelise Jones	Application Designer
Phoenix	Ralph B. Washington	System Analyst
Phoenix	James J. Frommer	General Support
Phoenix	Darlene M. Smithson	DSS Analyst

name_employee	name_jobclass	chr_per_hour
John G. News	Database Designer	€ 105.00
David H. Senior	System Analyst	€ 96.75
June E. Arbough	Elec. Engineering	€ 84.50
Anne K. Ramoras	System Analyst	€ 96.75
Alice K. Johnson	Database Designer	€ 105.00
William Smithfield	Programmer	€ 35.75
Maria D. Alonzo	Programmer	€ 35.75
Ralph B. Washington	System Analyst	€ 96.75
Geoff B. Wabash	Clerical Support	€ 26.87
Darlene M. Smithson	DSS Analyst	€ 45.95
Delbert K. Joenbrood	Application Designer	€ 48.10
Annelise Jones	Application Designer	€ 48.10
Travis B. Bawangi	System Analyst	€ 96.75
James J. Frommer	General Support	€ 18.36

2. Normalization

1NF:

No.Trans.	No.Anggota	Nama	Status	KodeBuku	Judul	Pengarang	Penerbit	ISBN	Jml	TglPinjam	TglKembali	JmlHari
12001	A-001	Budi	Tetap	B-001	Delphi	Antoni	Informatika Bandung	978-979-769-513-2	1	10/12/2016	15-12-2016	5
12001	A-001	Budi	Tetap	B-002	Visual Basic	Joni	Erlangga	978-979-518-852-0	1	10/12/2016	15-12-2016	5
12001	A-001	Budi	Tetap	B-003	Foxpro	Andrea	Andi	978-979-8340-17-8	1	10/12/2016	15-12-2016	5
12002	A-002	Aulia	Tidak Tetap	B-001	Delphi	Antoni	Informatika Bandung	978-979-769-513-2	1	11/12/2016	14-12-2016	3
12002	A-002	Aulia	Tidak Tetap	B-002	Visual Basic	Joni	Erlangga	978-979-518-852-0	1	11/12/2016	14-12-2016	3
12003	A-003	Susan	Tetap	B-001	Delphi	Antoni	Informatika Bandung	978-979-769-513-2	1	12/12/2016	17-12-2016	5
12003	A-003	Susan	Tetap	B-004	Pascal	Abdul	Modula	978-979-692-046-4	1	12/12/2016	17-12-2016	5

2NF:

No.Trans.	No.Anggota	Nama
12001	A-001	Budi
12002	A-002	Aulia
12003	A-003	Susan

KodeBuku	Judul	Pengarang	Penerbit	ISBN
B-001	Delphi	Antoni	Informatika Bandung	978-979-769-513-2
B-002	Visual Basic	Joni	Erlangga	978-979-518-852-0
B-003	Foxpro	Andrea	Andi	978-979-8340-17-8
B-001	Delphi	Antoni	Informatika Bandung	978-979-769-513-2
B-002	Visual Basic	Joni	Erlangga	978-979-518-852-0
B-001	Delphi	Antoni	Informatika Bandung	978-979-769-513-2
B-004	Pascal	Abdul	Modula	978-979-692-046-4

No.Trans.	KodeBuku	Jml	TglPinjam	TglKembali	JmlHari
12001	B-001	1	10/12/2016	15-12-2016	5
12001	B-002	1	10/12/2016	15-12-2016	5
12001	B-003	1	10/12/2016	15-12-2016	5
12002	B-001	1	11/12/2016	14-12-2016	3
12002	B-002	1	11/12/2016	14-12-2016	3
12003	B-001	1	12/12/2016	17-12-2016	5
12003	B-004	1	12/12/2016	17-12-2016	5

3NF:

No.Trans.	No.Anggota	Nama	Status
12001	A-001	Budi	Tetap
12002	A-002	Aulia	Tidak Tetap
12003	A-003	Susan	Tetap

KodeBuku	Judul	Pengarang	Penerbit
B-001	Delphi	Antoni	Informatika Bandung
B-002	Visual Basic	Joni	Erlangga
B-003	Foxpro	Andrea	Andi
B-004	Pascal	Abdul	Modula

No.Anggota	ISBN	TglPinjam	TglKembali	JmlHari
A-001	978-979-769-513-2	10/12/2016	15-12-2016	5
A-001	978-979-518-852-0	10/12/2016	15-12-2016	5
A-001	978-979-8340-17-8	10/12/2016	15-12-2016	5
A-002	978-979-769-513-2	11/12/2016	14-12-2016	3
A-002	978-979-518-852-0	11/12/2016	14-12-2016	3
A-003	978-979-769-513-2	12/12/2016	17-12-2016	5
A-003	978-979-692-046-4	12/12/2016	17-12-2016	5

KodeBuku	ISBN	Jml
B-001	978-979-769-513-2	1
B-002	978-979-518-852-0	1
B-003	978-979-8340-17-8	1
B-001	978-979-769-513-2	1
B-002	978-979-518-852-0	1
B-001	978-979-769-513-2	1
B-004	978-979-692-046-4	1

3. Normalization

1 NF:

FROM	TO	FLIGHT NO.	ETA	ETD	DAY OF SERVICE	FLEET	REMARKS
BANDUNG	PADANG	18 6420	6:00	7:40	DAILY	A320	DIRECT
BANDUNG	PALEMBANG	18 6440	10:10	11:20	DAILY	A320	DIRECT
BANDUNG	MEDAN	18 6440	10:10	13:20	DAILY	A320	VIA PALEMBANG
BANDUNG	PEKANBARU	18 6450	17:30	19:10	DAILY	A320	DIRECT
MEDAN	PALEMBANG	18 6442	13:50	15:30	DAILY	A320	DIRECT
MEDAN	BANDUNG	18 6442	13:50	17:05	DAILY	A320	VIA PALEMBANG
PADANG	BANDUNG	18 6251	8:05	9:45	DAILY	A320	DIRECT
PEKANBARU	BANDUNG	18 6251	19:35	21:15	DAILY	A320	DIRECT
PALEMBANG	BANDUNG	18 6441	15:55	17:05	DAILY	A320	DIRECT
PALEMBANG	MEDAN	18 6440	11:45	13:02	DAILY	A320	DIRECT
PONTIANAK	SINTANG	18 200	8:00	8:45	FRIDAY & SUNDAY	ATR42	DIRECT
PONTIANAK	PANGKALANBUN	18 206	10:15	11:15	MON, FRI, SAT, SUN	ATR42	DIRECT
PONTIANAK	KETAPANG	18 202	8:10	8:45	MONDAY & SATURDAY	ATR42	DIRECT
SINTANG	PONTIANAK	18 201	9:00	9:45	FRIDAY & SUNDAY	ATR42	DIRECT
PANGKALANBUN	PONTIANAK	18 207	15:30	16:30	MON, FRI, SAT, SUN	ATR42	DIRECT
KETAPANG	PONTIANAK	18 203	9:00	9:35	MONDAY & SATURDAY	ATR42	DIRECT

2 NF:

FROM	TO	FLIGHT NO.
BANDUNG	PADANG	18 6420
BANDUNG	PALEMBANG	18 6440
BANDUNG	MEDAN	18 6440
BANDUNG	PEKANBARU	18 6450
MEDAN	PALEMBANG	18 6442
MEDAN	BANDUNG	18 6442
PADANG	BANDUNG	18 6251
PEKANBARU	BANDUNG	18 6251
PALEMBANG	BANDUNG	18 6441
PALEMBANG	MEDAN	18 6440
PONTIANAK	SINTANG	18 200
PONTIANAK	PANGKALANBUN	18 206
PONTIANAK	KETAPANG	18 202
SINTANG	PONTIANAK	18 201
PANGKALANBUN	PONTIANAK	18 207
KETAPANG	PONTIANAK	18 203

FLIGHT NO.	ETA	ETD
18 6420	6:00	7:40
18 6440	10:10	11:20
18 6440	10:10	13:20
18 6450	17:30	19:10
18 6442	13:50	15:30
18 6442	13:50	17:05
18 6251	8:05	9:45
18 6251	19:35	21:15
18 6441	15:55	17:05
18 6440	11:45	13:02
18 200	8:00	8:45
18 206	10:15	11:15
18 202	8:10	8:45
18 201	9:00	9:45
18 207	15:30	16:30
18 203	9:00	9:35

FLIGHT NO.	DAY OF SERVICE	FLEET	REMARKS
18 6420	DAILY	A320	DIRECT
18 6440	DAILY	A320	DIRECT
18 6440	DAILY	A320	VIA PALEMBANG
18 6450	DAILY	A320	DIRECT
18 6442	DAILY	A320	DIRECT
18 6442	DAILY	A320	VIA PALEMBANG
18 6251	DAILY	A320	DIRECT
18 6251	DAILY	A320	DIRECT
18 6441	DAILY	A320	DIRECT
18 6440	DAILY	A320	DIRECT
18 200	FRIDAY & SUNDAY	ATR42	DIRECT
18 206	MON, FRI, SAT, SUN	ATR42	DIRECT
18 202	MONDAY & SATURDAY	ATR42	DIRECT
18 201	FRIDAY & SUNDAY	ATR42	DIRECT
18 207	MON, FRI, SAT, SUN	ATR42	DIRECT
18 203	MONDAY & SATURDAY	ATR42	DIRECT

3 NF:

FROM	TO	FLIGHT NO.
BANDUNG	PADANG	18 6420
BANDUNG	PALEMBANG	18 6440
BANDUNG	MEDAN	18 6440
BANDUNG	PEKANBARU	18 6450
MEDAN	PALEMBANG	18 6442
MEDAN	BANDUNG	18 6442
PADANG	BANDUNG	18 6251
PEKANBARU	BANDUNG	18 6251
PALEMBANG	BANDUNG	18 6441
PALEMBANG	MEDAN	18 6440
PONTIANAK	SINTANG	18 200
PONTIANAK	PANGKALANBUN	18 206
PONTIANAK	KETAPANG	18 202
SINTANG	PONTIANAK	18 201
PANGKALANBUN	PONTIANAK	18 207
KETAPANG	PONTIANAK	18 203

FLIGHT NO.	ETA	ETD
18 6420	6:00	7:40
18 6440	10:10	11:20
18 6440	10:10	13:20
18 6450	17:30	19:10
18 6442	13:50	15:30
18 6442	13:50	17:05
18 6251	8:05	9:45
18 6251	19:35	21:15
18 6441	15:55	17:05
18 6440	11:45	13:02
18 200	8:00	8:45
18 206	10:15	11:15
18 202	8:10	8:45
18 201	9:00	9:45
18 207	15:30	16:30
18 203	9:00	9:35

DAY OF SERVICE
DAILY
FRIDAY & SUNDAY
MON, FRI, SAT, SUN
MONDAY & SATURDAY

FLEET
A320
ATR42

REMARKS
DIRECT
VIA PALEMBANG