Project Report

Second delivery

Database Management System

ITCS241

– SIMPLE HAPPY TOGETHER –

Domain: Online marketplace

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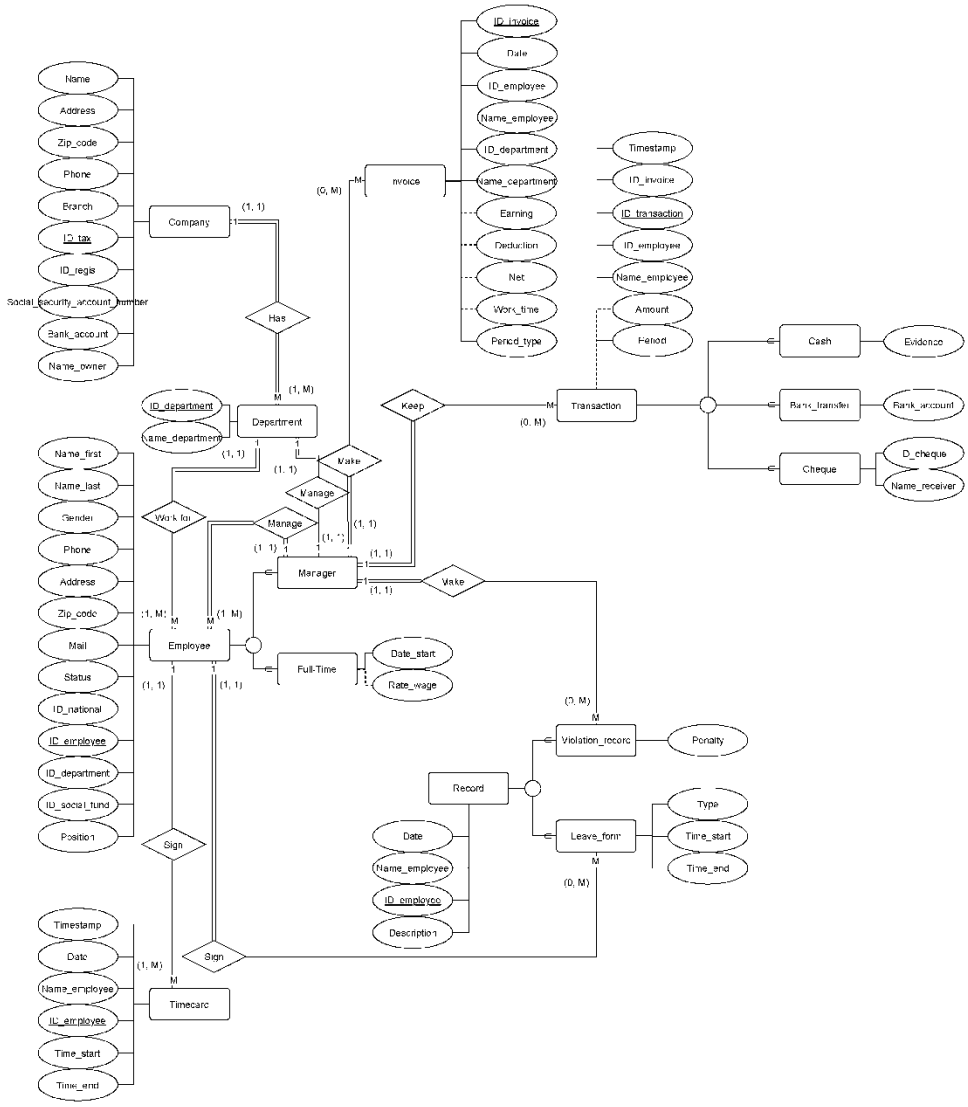
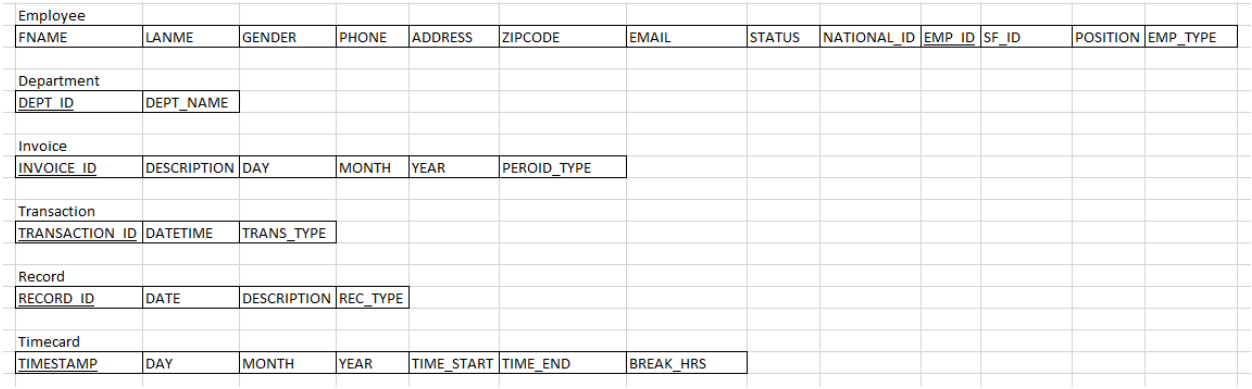
REVISED ERD


Name
Address
Zip_code
Phone
Branch
ID_tax
ID_regis
Social_security_account_number
Bank_account
Name_owner
Company
(1, 1)
Has
(1, M)
M
ID_department
Name_department
Department
(1, 1)
(1, 1)
Make
Manage
Manage
(1, 1)
(1, 1)
(1, *)
(1, 1)
Work for
Manager
(1, 1)
Make
Name_first
Name_last
Gender
Phone
Address
Zip_code
Mail
Status
ID_national
ID_employee
ID_department
ID_social_fund
Position
(1, M)
(1, M)
Employee
(1, 1)
(1, 1)
Full-Time
Date_start
Rate_wage
Sign
Timestamp
Date
Name_employee
ID_employee
Time_start
Time_end
(1, M)
M
Timecard
Sign
ID_invoice
Date
ID_employee
Name_employee
ID_department
Name_department
Earning
Deduction
Net
Work_time
Period_type
(0, M)
M
Invoice
Timestamp
ID_invoice
ID_transaction
ID_employee
Name_employee
Amount
Period
Keep
(0, M)
M
Transaction
Cash
Evidence
Bank_transfer
Bank_account
Cheque
D_cheque
Name_receiver
(0, M)
M
Violation_record
Penalty
Record
Leave_form
Type
Time_start
Time_end
M
(0, M)
Date
Name_employee
ID_employee
Description

8-steps to transforming ERD to relational schema (step-by-step)

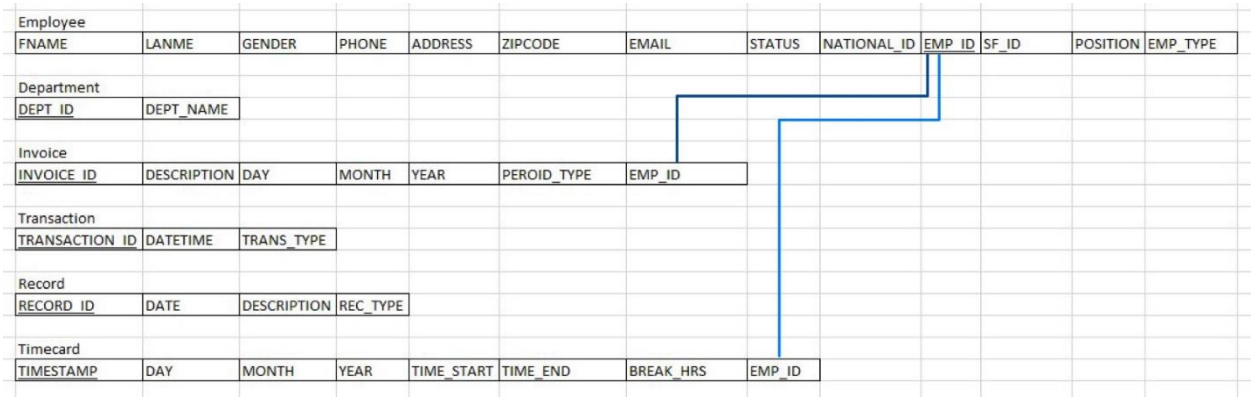
STEP 01



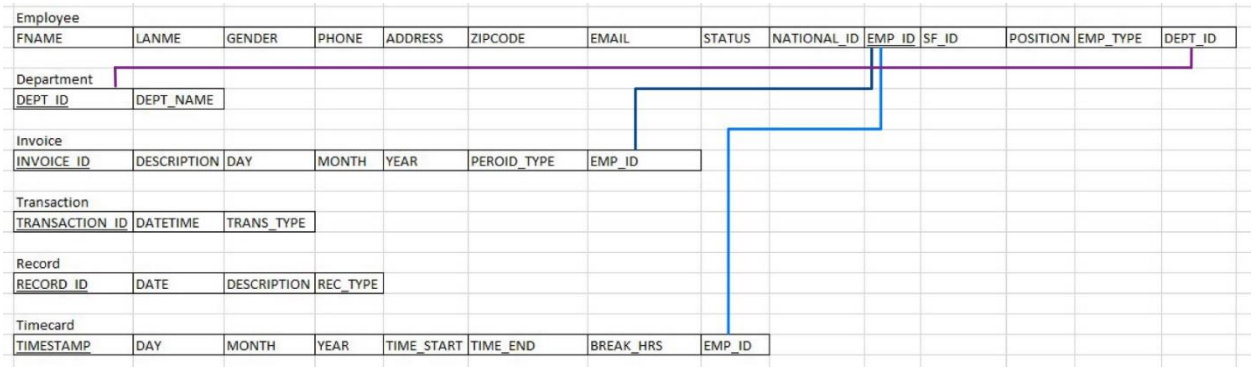
STEP 02

- No change

STEP 03



STEP 04



STEP 05

- No change

STEP 06

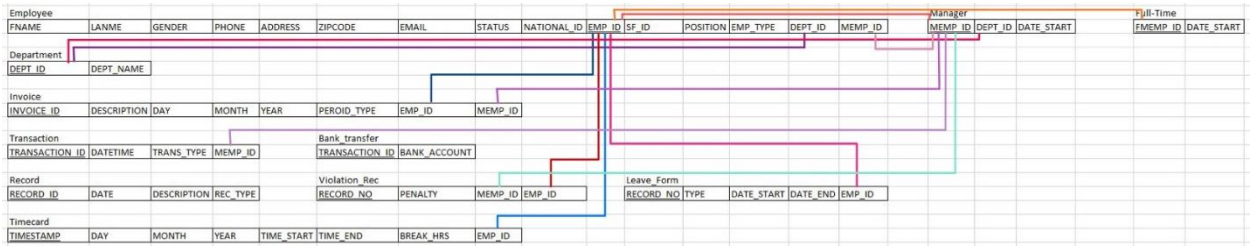
- No change

STEP 07

- No change

STEP 08

Final relational schrema



Data Dictionary

Table name	Attrubute Name	Contents	Type	Format	Nullable	Range	Key	FK Referenced Table
Employee	fname	Employee's first name	varchar(20)	Xxxxxx				
	lname	Employee's last name	varchar(20)	Xxxxxx				
	gender	Employee's gender	varchar(20)	Xxxxxx				
	phone	Employee's phone	varchar(10)	xxxxxxxxxx				
	address	Employee's address	varchar(100)	Xxxxxx				
	zip_code	Zip code of Address	int	xxxxx				
	email	Employee's personal mail	varchar(100)	Xxxxxx				
	status	Employee's status	varchar(20)	Xxxxxx	Y			
	national_ID	Employee's national number	int(10)	xxxxxxxxxxxx				
	emp_id	Employee's number	int	xxx			PK	
	sf_id	Employee's social fund id	varchar(10)	xxxxxxxxxx				
	position	Position of employee	varchar(50)	Xxxxxx				
	dept_id	Department number	int	x	Y		FK	Department(dept_id)
	memp_id	Manager's id	int	xxxxxxxxxx	Y		FK	Manager(memp_id)
	emp_type	Type of employee	varchar(10)	Xxxxxx				
Manager	memp_ID	Employee's number	int	xxx	Y		PK,FK	Employee(emp_ID)
	dept_ID	Department number	int	x	Y		FK	Department(dept_id)
	start_date	Start date	DATE		Y			
Full-time	femp_id	Employee's number	INT	xxx			PK	
	date_start	Date of first day working	date	yyyy-mm-dd	Y			
Timecard	Timestamp	Time registered for employee	INT	x	Y			
	date	Working date	date	yyyy-mm-dd	Y			
	time_start	Start working time	time	hh:mm:ss				
	time_end	Stop working time	time	hh:mm:ss				
	emp_id	Employee's number	INT	xxx	Y		PK,FK	Employee(emp_id)
	break_hrs	Break time duration	INT	hh:mm	Y			
Department	dept_ID	Department's number	int	x			PK	
	Name	Department's name	varchar(50)	Xxxxxx				
Invoice	Description	Invoice description	varchar(100)	Xxxxxxx	Y			
	invoice_id	Invoice ID	INT	xxxx			PK	
	date	Order date	Date	yyyy-mm-dd				
	peroid_type	Payment interval	varchar(50)	Xxxxxx				
	emp_id	Employee's number	INT	xxx			FK	Employee(emp_id)
	memp_ID	Manager's number	INT	xxxxxxxxxx			FK	Manager(memp_id)
Transaction	transaction_id	transaction ID	INT	xxxx			PK	
	Datetime	Date of transaction	Date	hh:mm yyyy-mm-dd				
	memp_id	Manager's number	int	xxxxxxxxxx			FK	Manager(memp_id)
	trans_type	Transaction type	varchar(40)	Xxxxxx				
Bank_transfer	transaction_id	transaction ID	INT	xxxxxxxxxx			PK,FK	Transaction`(transaction_id
	bank_account	Bank account	varchar(10)	xxxxxxxxxx				
Record	date	Date of record	date	yyyy-mm-dd				
	record_id	Number of record	INT	xxxxxxxxxx			PK	
	description	record description	varchar(100)	Xxxxxx	Y			
	rec_type	Type of the record	varchar(50)	Xxxxxx				
Violation_Rec	record_id	Number of record	INT	xxxx			PK,FK	Record(record_id)
	emp_id	Employee's number	INT	xxx	Y		FK	Employee(emp_id)
	penalty	Penalty description	varchar(100)	Xxxxxx	Y			
	memp_id	Manager's number	INT	xxx	Y		FK	`Manager`(memp_id)
Leave_Form	record_id	Number of record	INT	xxxx			PK,FK	record(record_id)
	type	The reason for absence	varchar(50)	Xxxxxx	Y			
	date_start	Date to start leaving	date	yyyy-mm-dd				
	date_end	Date returned from vacation	date	yyyy-mm-dd				
	emp_id	Employee's number	INT	xxx			FK	Employee(emp_id)

List of queries

BASIC QUERIES

1 .

Select fname as firstname, lname as lastname,emp_id,position,dept_id

From employee;

- **List all the employees and show their “First Name”, “Last Name”, “Employee ID”, “Position” and which “Department” they are currently working.**

firstname	lastname	emp_id	position	dept_id
Pattadon	Singhajan	100	CEO	1
Celie	Tofts	101	Production Manager	2
Sander	Percy	102	Marketing Manager	3
Jolie	Cazereau	103	Quality control manager	4
Torey	Nuscher	104	Human resource management manager	5
Peder	Devaney	105	Financial manager	6
Dilan	Irons	106	Logistic manager	7
Jamie	Jex	107	Maid head	8
Jamey	List	108	Security head	9
Kevina	Beadham	109	Information technology manager	10
Kissee	Vail	110	Worker	2
Selina	Stobe	111	Worker	2
Juliana	Vineall	112	Analyst	3
Jamie	Jex	113	SNS admin	3
Jamey	List	114	Tester	4
Jamie	Goodacre	115	Advertisement	3
Kathrine	Priden	116	Recruiter	5
Aksel	Punter	117	Evaluator	5
Vincent	Pecey	118	Accountant	6
Darb	Stanbro	119	Auditor	6
Chrissy	Merigeau	120	Driver	7
Tamas	Seegar	121	Driver	7
Nayika	Srinean	122	Secretary	1
Nathanil	Sammon	123	Maid	8
Myrah	McIlory	124	Security guard	9
Tiertza	Morcom	125	Security guard	9
Sal	Leaburn	126	Front end dev	10
Roldan	Phant	127	back end dev	10
Tammy	Micklewri...	128	Full stack dev	10
Cloe	Hickinbot...	129	Senior dev	10
NULL	NULL	NULL	NULL	NULL

2.

```
Select concat(fname," ",lname) as Name,dept_id,position
From employee
where dept_id = 10;
```

- **List all the employees who are working in “Information Technology department”.**

Name	dept_id	position
Kevina Beadham	10	Information technology manager
Sal Leaburn	10	Front end dev
Roldan Phant	10	back end dev
Tammy Micklewright	10	Full stack dev
Cloe Hickinbottom	10	Senior dev

3.

```
Select fname,lname
From employee
where gender = 'F';
```

- **Select only female employees and show their names sort by one’s “First Name” lexicographically in ascending order.**

firstname	lastname
Celie	Tofts
Chrissy	Merigeau
Jamey	List
Jolie	Cazereau
Juliana	Vineall
Kathrine	Priden
Kevina	Beadham
Kissee	Vail
Myrah	McIlory
Nathanil	Sammon
Nayika	Srinean
Sander	Percy
Selina	Stobe
Tammy	Micklewri...
Tiertza	Morcom

4.

```
SELECT fname,lname,dept_id
FROM employee
WHERE emp_type = "full-time"
ORDER BY dept_id ASC;
```

- **List all the full-time employees and shows their “First name”, Last Name” and “Department ID” ordered by their “Department ID” in ascending order.**

Nayika	Srinean	1
Kissee	Vail	2
Selina	Stobe	2
Juliana	Vineall	3
Jamie	Jex	3
Jamie	Goodacre	3
Jamey	List	4
Kathrine	Priden	5
Aksel	Punter	5
Vincent	Pecey	6
Darb	Stanbro	6
Chrissy	Merigeau	7
Tamas	Seegar	7
Nathanil	Sammon	8
Myrah	McIlory	9
Tiertza	Morcom	9
Sal	Leaburn	10
Roldan	Phant	10
Tammy	Micklewri...	10
Cloe	Hickinbot...	10

5.

```
Select invoice_id, emp_id
From invoice;
```

- **List “Invoice ID” and “Employee ID” so that we can know what each “Invoice ID” belongs to.**

invoice_id	emp_id
1094	100
1002	101
1003	102
1004	103
1005	104
1006	105
1007	106
1008	107
1009	108
1099	109
1010	110
1012	111
1013	112
1014	113
1015	114
1016	115
1017	116
1018	117
1019	118
1020	119
1021	120
1022	121
1023	122
1024	123
1025	124
1026	125
1027	126
1028	127
1029	128
1030	129

6.

```
Select transaction_id,Datetime as date , trans_type
From `Transaction`
Where trans_type = "bank_transfer";
```

- **List all the “Transaction ID” that “Transaction Type” is “Bank Transfer”.**

transaction_id	date	trans_type
2000	2015-05-22	Bank_transfer
2001	2021-05-10	Bank_transfer
2002	2021-09-14	Bank_transfer
2003	2021-01-08	Bank_transfer
2004	2021-02-01	Bank_transfer
2005	2020-08-23	Bank_transfer
2006	2020-11-20	Bank_transfer
2007	2021-11-16	Bank_transfer
2008	2021-11-19	Bank_transfer
2009	2020-03-20	Bank_transfer
2010	2020-07-08	Bank_transfer
2011	2020-08-06	Bank_transfer
2012	2021-07-02	Bank_transfer
2013	2020-08-21	Bank_transfer
2014	2020-06-14	Bank_transfer
2015	2020-02-28	Bank_transfer
2016	2020-12-12	Bank_transfer
2017	2020-04-12	Bank_transfer
2018	2020-07-14	Bank_transfer
2019	2020-09-09	Bank_transfer
2020	2021-09-27	Bank_transfer
2021	2020-09-04	Bank_transfer
2022	2020-09-25	Bank_transfer
2023	2019-12-11	Bank_transfer
2024	2020-09-11	Bank_transfer
2025	2020-12-11	Bank_transfer
2026	2020-08-07	Bank_transfer
2027	2021-04-20	Bank_transfer
2028	2020-07-31	Bank_transfer
2029	2021-08-26	Bank_transfer

7.

```
Select record_id,date,description
From Record
Where `description` IS NULL;
```

- **Select “Records” that does not have a “Description”.**

record_id	date	description
3000	2021-05-30	NULL
3001	2020-01-03	NULL
3004	2021-06-27	NULL
3010	2020-05-04	NULL
3011	2020-09-27	NULL
3013	2021-08-27	NULL
3014	2021-03-19	NULL
3015	2021-01-21	NULL
3018	2021-03-28	NULL
3019	2021-03-08	NULL
3021	2021-09-27	NULL
3022	2019-12-24	NULL
3023	2021-10-25	NULL
3024	2019-12-28	NULL
3025	2021-07-07	NULL
3027	2020-04-02	NULL
3028	2019-12-10	NULL
3029	2021-09-20	NULL
NULL	NULL	NULL

8.

```
Select record_id,date,description
From Record
Where `description` IS NOT NULL;
```

- **Select “Records” that has a “Description”.**

record_id	date	description
3002	2021-06-20	Smoking in office
3003	2020-03-07	Punch his manager
3005	2020-09-20	forgot to turn off the light
3006	2021-03-30	Break office's mirror
3007	2020-02-20	Sleep in worktime
3008	2020-06-09	Sleep
3009	2020-06-17	Too bad
3012	2020-03-19	I need to went to music festival
3016	2020-07-05	for the vacation
3017	2020-07-11	family dinner!
3020	2021-02-05	for full moon party
3026	2020-10-26	Game release

9.

```
Select record_id,penalty,emp_id
From violation_rec
Where Penalty = 'salary deduction';
```

- **List employees that got “Salary Deduction” = “Penalty”.**

record_id	penalty	emp_id
3000	Salary deduction	112
3001	Salary deduction	113
3003	Salary deduction	123
3005	Salary deduction	127
3006	Salary deduction	114
3007	Salary deduction	121
3009	Salary deduction	111

10.

```
Select record_id,date_start,date_end,emp_id
From Leave_form
Where type = 'Annual leave';
```

- **Select employees who has an “Annual Leave” form**

record_id	date_start	date_end	emp_id
3010	2021-05-11	2020-09-14	100
3012	2020-02-21	2020-10-03	123
3013	2019-12-12	2020-01-16	117
3014	2021-02-07	2020-06-20	125
3016	2021-07-08	2020-01-11	108
3018	2021-02-21	2021-11-15	102
3019	2020-09-15	2021-04-20	100
3020	2021-09-10	2021-11-29	114
3021	2019-12-26	2021-10-07	117
3024	2019-12-19	2021-05-18	104
3025	2021-04-26	2019-12-09	101
3026	2021-04-30	2021-06-17	103
3027	2021-06-17	2020-06-09	124
3028	2020-08-29	2020-11-01	109
3029	2020-07-29	2020-05-10	108

11.

```
Select Record_id,rec_type
From Record
Where Rec_type = "violation_rec";
```

- **Select “Record ID” that “Record Type” is “Violation Record”**

Record_id	rec_type
3000	violation_rec
3001	violation_rec
3002	violation_rec
3003	violation_rec
3004	violation_rec
3005	violation_rec
3006	violation_rec
3007	violation_rec
3008	violation_rec
3009	violation_rec

12.

Select Timestamp,emp_id

From timecard
order by timestamp asc;

- **list “Timestamp” and "Employee ID” sorted by “Timestamp” in ascending order.**

Timestamp	emp_id
1001	100
1002	101
1003	102
1004	103
1005	104
1006	105
1007	106
1008	107
1009	108
1010	109
1011	110
1012	111
1013	112
1014	113
1015	114
1016	115
1017	116
1018	117
1019	118
1020	119
1021	120
1022	121
1023	122
1024	123
1025	124
1026	125
1027	126

13.

```
Select timestamp, emp_id, break_hrs
From timecard
Where break_hrs = 1;
```

- **List “Employee ID” which “Break Hour” is “1”.**

timestamp	emp_id	break_hrs
1002	101	1
1004	103	1
1005	104	1
1006	105	1
1008	107	1
1009	108	1
1010	109	1
1011	110	1
1017	116	1
1019	118	1
1021	120	1
1022	121	1
1024	123	1
1025	124	1
1026	125	1
1028	127	1

14.

```
Select timestamp, emp_id, break_hrs
From timecard
Where break_hrs = 2;
```

- **List “Employee ID” which “Break Hour” is 2.**

timestamp	emp_id	break_hrs
1001	100	2
1003	102	2
1007	106	2
1012	111	2
1013	112	2
1014	113	2
1015	114	2
1016	115	2
1018	117	2
1020	119	2
1023	122	2
1027	126	2
1029	128	2
1030	129	2
1031	100	2

15.

```
SELECT fname,lname,dept_id
FROM employee
WHERE emp_type = "Manager"
ORDER BY dept_id ASC;
```

- **List the "Managers' Name" and what "Department" that they are in.**

fname	lname	dept_id
Pattadon	Singhajan	1
Celie	Tofts	2
Picha	Wanichayagosol	3
Thanakrit	Manesawas	4
Torey	Nuscher	5
Peder	Devaney	6
Dilan	Irons	7
Jamie	Jex	8
Jamey	List	9
Kevina	Beadham	10

ADVANCE QUERIES

16.
Select CONCAT(fname," ",lname) AS Name,d.name as Department
From employee e JOIN Department d on e.dept_id = d.dept_id;

- **List of all "Employees' Name" and what "Department" that they are currently working.**

Name	Department
Pattadon Singhajan	Administration
Nayika Srinean	Administration
Celie Tofts	Production
Kissee Vail	Production
Selina Stobe	Production
Picha Wanichayagosol	Marketing
Juliana Vineall	Marketing
Jamie Jex	Marketing
Jamie Goodacre	Marketing
Thanakrit Manesawas	Quality control
Jamey List	Quality control
Torey Nuscher	Human resour...
Kathrine Priden	Human resour...
Aksel Punter	Human resour...
Peder Devaney	Financial
Vincent Pecey	Financial
Darb Stanbro	Financial
Dilan Irons	Logistic
Chrissy Merigeau	Logistic
Tamas Seegar	Logistic
Jamie Jex	Maid
Nathanil Sammon	Maid
Jamey List	Security
Myrah McIlory	Security
Tiertza Morcom	Security
Kevina Beadham	Information t...
Sal Leaburn	Information t...
Roldan Phant	Information t...
Tammy Micklewright	Information t...
Cloe Hickinbottom	Information t...

17.

```
Select invoice_id,peroid_type,date,e.emp_id,concat(e.fname," ",lname) as name
FROM invoice i
INNER JOIN employee e on i.emp_id = e.emp_id;
```

- **List "Invoice ID" and other information, like "Period Type" then show the "Name" of employee.**

invoice_id	peroid_type	date	emp_id	name
1002	Daily	2020-05-08	101	Celie Tofts
1003	Weekly	2020-02-17	102	Picha Wanichayagosol
1004	Weekly	2020-11-15	103	Thanakrit Maneesawas
1005	Daily	2020-02-07	104	Torey Nuscher
1006	Daily	2020-05-04	105	Peder Devaney
1007	Monthly	2020-07-27	106	Dilan Irons
1008	Monthly	2019-12-03	107	Jamie Jex
1009	Monthly	2020-06-18	108	Jamey List
1010	Monthly	2020-01-03	110	Kissee Vail
1012	Monthly	2020-12-02	111	Selina Stobe
1013	Monthly	2020-01-17	112	Juliana Vineall
1014	Monthly	2020-05-11	113	Jamie Jex
1015	Monthly	2020-03-02	114	Jamey List
1016	Monthly	2020-04-20	115	Jamie Goodacre
1017	Monthly	2020-05-05	116	Kathrine Priden
1018	Monthly	2020-01-10	117	Aksel Punter
1019	Monthly	2020-05-24	118	Vincent Pecey
1020	Monthly	2020-03-23	119	Darb Stanbro
1021	Monthly	2020-07-20	120	Chrissy Merigeau
1022	Daily	2020-09-24	121	Tamas Seegar
1023	Monthly	2020-08-22	122	Nayika Srinean
1024	Monthly	2020-07-08	123	Nathanil Sammon
1025	Monthly	2020-10-15	124	Myrah McIlory
1026	Monthly	2020-02-23	125	Tiertza Morcom
1027	Monthly	2020-11-01	126	Sal Leaburn
1028	Monthly	2020-09-16	127	Roldan Phant
1029	Monthly	2020-04-10	128	Tammy Micklewright
1030	Monthly	2020-06-18	129	Cloe Hickinbottom
1094	Daily	2020-07-08	100	Pattadon Singhajan
1099	Monthly	2020-07-12	109	Kevina Beadham

18.

```
Select e.emp_id,concat(e.fname," ",lname) as name,t.timestamp,d.name as
Department, Count(t.emp_id) as Attendance
From employee e
JOIN timecard t on t.emp_id = e.emp_id
JOIN department d on d.dept_id = e.dept_id
group by t.emp_id
order by Attendance desc
Limit 1;
```

- **List the employee from who has the highest timestamp credits and what is his/her department.**

emp_id	name	timestamp	Department	Attendance
100	Pattadon Singhajan	1001	Administration	2

19.

```
SELECT SUM(CASE WHEN UPPER(Gender) = 'M' THEN 1 ELSE 0 END) AS
Male,
SUM(CASE WHEN UPPER(Gender) = 'F' THEN 1 ELSE 0 END) AS Female,
COUNT(emp_id) AS 'Total Employee'  FROM employee;
```

- **Count the employee's gender.**

Male	Female	Total Employee
17	13	30

20.

```
Select t.transaction_id,b.bank_account
From transaction t
JOIN bank_transfer b on t.transaction_id = b.transaction_id;
```

- **List all the “Transaction ID” and “Bank Account” corresponding to it.**

transaction_id	bank_account
2000	9046204851
2001	2551245643
2002	3986325371
2003	1402594955
2004	8646721938
2005	6562278680
2006	0738251511
2007	5839466544
2008	9532820217
2009	6031775169
2010	9760044937
2011	6436025380
2012	4021867800
2013	8976977493
2014	9215657648
2015	7062982132
2016	1283258040
2017	0219482795
2018	0532596325
2019	2538300012
2020	0002303714
2021	1894336244
2022	0780405000
2023	3322379137
2024	0459479767
2025	7588705568
2026	4383323379
2027	2938828274
2028	3760814679
2029	0712592855

21.

```
SELECT r.record_id,rec_type,emp_id,date_start,date_end
FROM Record r
JOIN leave_form l on l.record_id = r.record_id;
```

- **Select record which “Record Type” is “Leave Form”.**

record_id	rec_type	emp_id	date_start	date_end
3010	leave_form	119	2020-09-16	2021-01-05
3011	leave_form	122	2020-09-03	2021-01-10
3012	leave_form	113	2020-09-10	2021-01-06
3013	leave_form	102	2020-11-08	2021-01-06
3014	leave_form	108	2020-04-04	2021-01-07
3015	leave_form	120	2020-11-22	2021-01-09
3016	leave_form	122	2020-01-21	2021-01-05
3017	leave_form	129	2020-09-08	2021-01-07
3018	leave_form	120	2020-06-03	2021-01-09
3019	leave_form	110	2020-09-08	2021-01-07
3020	leave_form	114	2021-09-10	2021-11-29
3021	leave_form	117	2019-12-26	2021-10-07
3022	leave_form	105	2020-11-26	2020-04-27
3023	leave_form	100	2020-06-09	2021-11-25
3024	leave_form	104	2019-12-19	2021-05-18
3025	leave_form	101	2021-04-26	2019-12-09
3026	leave_form	103	2021-04-30	2021-06-17
3027	leave_form	124	2021-06-17	2020-06-09
3028	leave_form	109	2020-08-29	2020-11-01
3029	leave_form	108	2020-07-29	2020-05-10

22.

```
SELECT r.record_id,concat(e.fname," ",lname) as name,rec_type,v.emp_id,Penalty
FROM Record r
JOIN violation_rec v on v.record_id = r.record_id
JOIN employee e on e.emp_id = v.emp_id;
```

- **List employees who has any “Violation Penalty”.**

record_id	name	rec_type	emp_id	Penalty
3000	Juliana Vineall	violation_rec	112	Salary deduction
3001	Jamie Jex	violation_rec	113	Salary deduction
3002	Nathanil Sammon	violation_rec	123	Suspension
3003	Nathanil Sammon	violation_rec	123	Salary deduction
3004	Cloe Hickinbottom	violation_rec	129	Suspension
3005	Roldan Phant	violation_rec	127	Salary deduction
3006	Jamey List	violation_rec	114	Salary deduction
3007	Tamas Seegar	violation_rec	121	Salary deduction
3008	Jamie Goodacre	violation_rec	115	Suspension
3009	Selina Stobe	violation_rec	111	Salary deduction

23.

```
SELECT femp_id,concat(e.fname," ",lname)as name,invoice_id,peroid_type
From `full-time` f
JOIN employee e on e.emp_id = f.femp_id
JOIN invoice i on i.emp_id = f.femp_id;
```

- **List all “Full-Time” employees and show “Invoice ID” and “Period Type”.**

femp_id	name	invoice_id	peroid_type
110	Kissee Vail	1010	Monthly
111	Selina Stobe	1012	Monthly
112	Juliana Vineall	1013	Monthly
113	Jamie Jex	1014	Monthly
114	Jamey List	1015	Monthly
115	Jamie Goodacre	1016	Monthly
116	Kathrine Priden	1017	Monthly
117	Aksel Punter	1018	Monthly
118	Vincent Pecey	1019	Monthly
119	Darb Stanbro	1020	Monthly
120	Chrissy Merigeau	1021	Monthly
121	Tamas Seegar	1022	Daily
122	Nayika Srinean	1023	Monthly
123	Nathanil Sammon	1024	Monthly
124	Myrah McIlory	1025	Monthly
125	Tiertza Morcom	1026	Monthly
126	Sal Leaburn	1027	Monthly
127	Roldan Phant	1028	Monthly
128	Tammy Micklew...	1029	Monthly
129	Cloe Hickinbottom	1030	Monthly

24.

```
Select e.emp_id,concat(e.fname," ",lname) as name,t.timestamp,d.name as
Department, Count(t.emp_id) as Attendance
From employee e
JOIN timecard t on t.emp_id = e.emp_id
JOIN department d on d.dept_id = e.dept_id
group by t.emp_id
order by Attendance desc;
```

- **List “Name”, “ID”, “Timestamp” of an employee who has the highest times of “Timestamp” in ascending.**

emp_id	name	timestamp	Department	Attendance
100	Pattadon Singhajan	1001	Administration	2
122	Nayika Srinean	1023	Administration	1
101	Celie Tofts	1002	Production	1
110	Kissee Vail	1011	Production	1
111	Selina Stobe	1012	Production	1
102	Picha Wanichayagosol	1003	Marketing	1
112	Juliana Vineall	1013	Marketing	1
113	Jamie Jex	1014	Marketing	1
115	Jamie Goodacre	1016	Marketing	1
103	Thanakrit Maneesawas	1004	Quality control	1
114	Jamey List	1015	Quality control	1
104	Torey Nuscher	1005	Human resour...	1
116	Kathrine Priden	1017	Human resour...	1
117	Aksel Punter	1018	Human resour...	1
105	Peder Devaney	1006	Financial	1
118	Vincent Pecey	1019	Financial	1
119	Darb Stanbro	1020	Financial	1
106	Dilan Irons	1007	Logistic	1
120	Chrissy Merigeau	1021	Logistic	1
121	Tamas Seegar	1022	Logistic	1
107	Jamie Jex	1008	Maid	1
123	Nathanil Sammon	1024	Maid	1
108	Jamey List	1009	Security	1
124	Myrah McIlory	1025	Security	1
125	Tiertza Morcom	1026	Security	1
109	Kevina Beadham	1010	Information t...	1
126	Sal Leaburn	1027	Information t...	1
127	Roldan Phant	1028	Information t...	1
128	Tammy Micklewright	1029	Information t...	1
129	Cloe Hickinbottom	1030	Information t...	1

25.

```
SELECT concat(e.fname," ",e.lname)as name,e.emp_id
FROM employee e
WHERE e.emp_id NOT IN (
        SELECT v.emp_id
   FROM violation_rec v
   WHERE v.penalty = "suspension"
);
```

- **List all employees that have not been in suspension.**

name	emp_id
Pattadon Singhajan	100
Celie Tofts	101
Picha Wanichayagosol	102
Thanakrit Manesawas	103
Torey Nuscher	104
Peder Devaney	105
Dilan Irons	106
Jamie Jex	107
Jamey List	108
Kevina Beadham	109
Kissee Vail	110
Selina Stobe	111
Juliana Vineall	112
Jamie Jex	113
Jamey List	114
Kathrine Priden	116
Aksel Punter	117
Vincent Pecey	118
Darb Stanbro	119
Chrissy Merigeau	120
Tamas Seegar	121
Nayika Srinean	122
Myrah McIlory	124
Tiertza Morcom	125
Sal Leaburn	126
Roldan Phant	127
Tammy Micklewright	128

26.

Select m.memp_id, concat(e.fname," ",e.lname)as name,d.dept_id,name as department
From manager m JOIN employee e on e.emp_id = m.memp_id
JOIN department d on e.dept_id = d.dept_id;

- **List all "Manager" with common details, like his/her managing "Department"**

memp_id	name	dept_id	department
100	Pattadon Singhajan	1	Administration
101	Celie Tofts	2	Production
102	Picha Wanichayagosol	3	Marketing
103	Thanakrit Manesawas	4	Quality control
104	Torey Nuscher	5	Human resource management
105	Peder Devaney	6	Financial
106	Dilan Irons	7	Logistic
107	Jamie Jex	8	Maid
108	Jamey List	9	Security
109	Kevina Beadham	10	Information technology

27.
SELECT d.dept_id,d.name as department,COUNT(*) as `Number of employees`
FROM employee e
JOIN department d on e.dept_id = d.dept_id
GROUP BY d.dept_id;

- **Show the number of employees in each department.**

dept_id	department	Number of employees
1	Administration	2
2	Production	3
3	Marketing	4
4	Quality control	2
5	Human resource management	3
6	Financial	3
7	Logistic	3
8	Maid	2
9	Security	3
10	Information technology	5

28.

```
SELECT concat(e.fname,' ',e.lname) as `Bad employee`,COUNT(v.emp_id) as
`Number of violation`
   FROM violation_rec v
   JOIN employee e on e.emp_id = v.emp_id
   group by v.emp_id
   order by COUNT(v.emp_id) desc
   Limit 1;
```

- **Show employee who has a highest number of "Violation".**

Bad employee	Number of violation
Nathanil Sammon	2

29.

```
SELECT DISTINCT emp_id,count(*) As `Number of violation`
FROM violation_rec
WHERE emp_id IN
(
        SELECT emp_id
   FROM Employee
)
GROUP by emp_id
ORDER BY emp_id, `Number of violation` desc;
```

- **Show the "Employee ID" that has any number of "Violation" ordered in descending order.**

emp_id	Number of violation
111	1
112	1
113	1
114	1
115	1
121	1
123	2
127	1
129	1

30.

```
SELECT DISTINCT emp_id,count(*) As Amount
        FROM leave_form
        WHERE emp_id IN
        (
        SELECT emp_id
         FROM Employee
        )
        GROUP by emp_id
        ORDER BY Amount desc;
```

- **List all employee that has “Leave Form” ordered by “Employee ID”**

emp_id	Amount
108	2
120	2
122	2
100	1
101	1
102	1
103	1
104	1
105	1
109	1
110	1
113	1
114	1
117	1
119	1
124	1
129	1

REFERENCES

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