

CASE STUDY

PayXpert,PAYROLL MANAGEMENT SYSTEM

Creating employee table:

```
mysql> create table employee(  
-> employee_id varchar(10) primary key,  
-> first_name varchar(30),  
-> last_name varchar(30),  
-> date_of_birth date,  
-> gender varchar(30),  
-> email varchar(30),  
-> phone_number varchar(30),  
-> address varchar(30),  
-> position varchar(30),  
-> joining_date date,  
-> termination_date date);  
Query OK, 0 rows affected (0.05 sec)
```

Field	Type	Null	Key	Default	Extra
employee_id	varchar(10)	NO	PRI	NULL	
first_name	varchar(30)	YES		NULL	
last_name	varchar(30)	YES		NULL	
date_of_birth	date	YES		NULL	
gender	varchar(30)	YES		NULL	
email	varchar(30)	YES		NULL	
phone_number	varchar(30)	YES		NULL	
address	varchar(30)	YES		NULL	
position	varchar(30)	YES		NULL	
joining_date	date	YES		NULL	
termination_date	date	YES		NULL	

11 rows in set (0.01 sec)

Creating payroll table:

```
mysql> create table payroll(  
-> payroll_id varchar(10) primary key,  
-> employee_id varchar(10),  
-> pay_period_start_date date,  
-> pay_period_end_date date,  
-> basic_salary decimal,  
-> overtime_pay decimal,  
-> deductions decimal,  
-> net_salary decimal,  
-> Foreign key (employee_id) references employee(employee_id));  
Query OK, 0 rows affected (0.06 sec)
```

Field	Type	Null	Key	Default	Extra
payroll_id	varchar(10)	NO	PRI	NULL	
employee_id	varchar(10)	YES	MUL	NULL	
pay_period_start_date	date	YES		NULL	
pay_period_end_date	date	YES		NULL	
basic_salary	decimal(10,0)	YES		NULL	
overtime_pay	decimal(10,0)	YES		NULL	
deductions	decimal(10,0)	YES		NULL	
net_salary	decimal(10,0)	YES		NULL	

8 rows in set (0.01 sec)

Creating tax table:

```
mysql> create table tax(  
-> tax_id varchar(10) primary key,  
-> employee_id varchar(10),  
-> tax_year year,  
-> taxable_income decimal,  
-> tax_amount decimal,  
-> Foreign key (employee_id) references employee(employee_id)  
-> );  
Query OK, 0 rows affected (0.05 sec)
```

Field	Type	Null	Key	Default	Extra
tax_id	varchar(10)	NO	PRI	NULL	
employee_id	varchar(10)	YES	MUL	NULL	
tax_year	year	YES		NULL	
taxable_income	decimal(10,0)	YES		NULL	
tax_amount	decimal(10,0)	YES		NULL	

5 rows in set (0.00 sec)

Creating financial record table:

```
mysql> create table financialrecord(
  -> record_id varchar(10) primary key,
  -> employee_id varchar(10),
  -> record_date date,
  -> description varchar(30),
  -> amount decimal,
  -> record_type varchar(30),
  -> Foreign key (employee_id) references employee(employee_id)
  -> );
Query OK, 0 rows affected (0.05 sec)
```

Field	Type	Null	Key	Default	Extra
record_id	varchar(10)	NO	PRI	NULL	
employee_id	varchar(10)	YES	MUL	NULL	
record_date	date	YES		NULL	
description	varchar(30)	YES		NULL	
amount	decimal(10,0)	YES		NULL	
record_type	varchar(30)	YES		NULL	

6 rows in set (0.01 sec)

Inserting values in the employee table

```
mysql> insert into employee (employee_id,first_name,last_name,date_of_birth,gender,email,phone_number,address,position,joining_date,termination_date)
  -> values
  -> ('e0','Sadhana','Sellamuthu','2003-06-30','Female','sadhu@gmail.com','123423452','Palani','Web developer','2024-09-12',null),
  -> ('e1','Mathi','Saminathan','1998-11-21','Female','mathi@gmail.com','224356278','Dharapuram','Software engineer','2024-05-12',null),
  -> ('e2','Sowmiya','Kuppusamy','2003-02-14','Female','sowmiya@gmail.com','345627228','Karur','Manager','2024-11-10',null),
  -> ('e3','Manoj','Eswaran','2003-04-19','Male','manoj@gmail.com','342561746','Dindigul','Java developer','2024-06-05',null),
  -> ('e4','Sowmya','Madhavan','2002-12-21','Female','sowmya@gmail.com','432671846','Dindigul','Supervisor','2024-06-07',null),
  -> ('e5','Sanjai','Krshinan','2003-05-22','Male','sanjai@gmail.com','324516357','Tiruppur','Java developer','2024-10-09',null),
  -> ('e6','Vinothini','Srinivasan','2003-02-09','Female','vino@gmail.com','452647282','Thanjavur','Software engineer','2024-06-11',null),
  -> ('e7','Abinaya','Nallathambi','1999-06-21','Female','abi@gmail.com','121345627','Kanchipuram','Web designer','2024-12-14',null),
  -> ('e8','Ravi','Ramasamy','2000-07-15','Male','ravi@gmail.com','546374635','Trichy','Python developer','2024-08-15',null),
  -> ('e9','Raja','Raman','2001-09-22','Male','raja@gmail.com','847563957','Chennai','Front end developer','2024-07-17',null);
Query OK, 10 rows affected (0.02 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

employee_id	first_name	last_name	date_of_birth	gender	email	phone_number	address	position	joining_date	termination_date
e0	Sadhana	Sellamuthu	2003-06-30	Female	sadhu@gmail.com	123423452	Palani	Web developer	2024-09-12	NULL
e1	Mathi	Saminathan	1998-11-21	Female	mathi@gmail.com	224356278	Dharapuram	Software engineer	2024-05-12	NULL
e2	Sowmiya	Kuppusamy	2003-02-14	Female	sowmiya@gmail.com	345627228	Karur	Manager	2024-11-10	NULL
e3	Manoj	Eswaran	2003-04-19	Male	manoj@gmail.com	342561746	Dindigul	Java developer	2024-06-05	NULL
e4	Sowmya	Madhavan	2002-12-21	Female	sowmya@gmail.com	432671846	Dindigul	Supervisor	2024-06-07	NULL
e5	Sanjai	Krshinan	2003-05-22	Male	sanjai@gmail.com	324516357	Tiruppur	Java developer	2024-10-09	NULL
e6	Vinothini	Srinivasan	2003-02-09	Female	vino@gmail.com	452647282	Thanjavur	Software engineer	2024-06-11	NULL
e7	Abinaya	Nallathambi	1999-06-21	Female	abi@gmail.com	121345627	Kanchipuram	Web designer	2024-12-14	NULL
e8	Ravi	Ramasamy	2000-07-15	Male	ravi@gmail.com	546374635	Trichy	Python developer	2024-08-15	NULL
e9	Raja	Raman	2001-09-22	Male	raja@gmail.com	847563957	Chennai	Front end developer	2024-07-17	NULL

10 rows in set (0.00 sec)

Inserting values in the payroll table:

```
mysql> insert into payroll(payroll_id,employee_id,pay_period_start_date,pay_period_end_date,basic_salary,overtime_pay,deductions,net_salary)
-> values
-> ('p0','e3','2024-06-07','2025-01-07','10000','4500','1000','13500'),
-> ('p1','e7','2024-12-14','2025-05-12','12000','3000','1000','14000'),
-> ('p2','e4','2024-06-08','2025-02-21','15000','5000','2000','18000'),
-> ('p3','e9','2024-07-18','2024-12-18','20000','4000','500','23500'),
-> ('p4','e5','2024-10-10','2024-12-12','13000','2000','3000','12000'),
-> ('p5','e0','2024-09-13','2025-09-13','18000','6000','1000','23000'),
-> ('p6','e8','2024-08-16','2025-08-16','30000','4000','2000','32000'),
-> ('p7','e1','2024-05-14','2025-10-14','16000','2500','1500','17000'),
-> ('p8','e6','2024-06-12','2025-03-13','14000','4000','2300','15700'),
-> ('p9','e2','2024-11-11','2025-09-12','19000','5000','4000','20000');
Query OK, 10 rows affected (0.01 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

payroll_id	employee_id	pay_period_start_date	pay_period_end_date	basic_salary	overtime_pay	deductions	net_salary
p0	e3	2024-06-07	2025-01-07	10000	4500	1000	13500
p1	e7	2024-12-14	2025-05-12	12000	3000	1000	14000
p2	e4	2024-06-08	2025-02-21	15000	5000	2000	18000
p3	e9	2024-07-18	2024-12-18	20000	4000	500	23500
p4	e5	2024-10-10	2024-12-12	13000	2000	3000	12000
p5	e0	2024-09-13	2025-09-13	18000	6000	1000	23000
p6	e8	2024-08-16	2025-08-16	30000	4000	2000	32000
p7	e1	2024-05-14	2025-10-14	16000	2500	1500	17000
p8	e6	2024-06-12	2025-03-13	14000	4000	2300	15700
p9	e2	2024-11-11	2025-09-12	19000	5000	4000	20000

10 rows in set (0.00 sec)

Inserting values in the tax table:

```
mysql> insert into tax(tax_id,employee_id,tax_year,taxable_income,tax_amount)
-> values
-> ('t0','e4',2024,16000,2000),
-> ('t1','e8',2024,28000,4000),
-> ('t2','e3',2024,12000,1500),
-> ('t3','e7',2025,10000,3500),
-> ('t4','e0',2024,20000,3000),
-> ('t5','e9',2024,21000,2500),
-> ('t6','e6',2024,13000,2700),
-> ('t7','e2',2025,17000,3000),
-> ('t8','e5',2025,10000,2000),
-> ('t9','e1',2024,13000,4000);
Query OK, 10 rows affected (0.01 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

tax_id	employee_id	tax_year	taxable_income	tax_amount
t0	e4	2024	16000	2000
t1	e8	2024	28000	4000
t2	e3	2024	12000	1500
t3	e7	2025	10000	3500
t4	e0	2024	20000	3000
t5	e9	2024	21000	2500
t6	e6	2024	13000	2700
t7	e2	2025	17000	3000
t8	e5	2025	10000	2000
t9	e1	2024	13000	4000

10 rows in set (0.00 sec)

Inserting values in the financial record table:

```
mysql> insert into financialrecord(record_id,employee_id,record_date,description,amount,record_type)
-> values
-> ('r0','e6','2024-12-30','income',15700,'income'),
-> ('r1','e3','2024-12-29','tax',1500,'tax'),
-> ('r2','e9','2024-12-28','expenses',7000,'expenses'),
-> ('r3','e0','2024-12-30','income',23000,'income'),
-> ('r4','e2','2024-12-31','tax',3000,'tax'),
-> ('r5','e1','2024-12-29','expenses',6000,'expenses'),
-> ('r6','e7','2024-12-28','income',14000,'income'),
-> ('r7','e5','2024-12-31','tax',2000,'tax'),
-> ('r8','e8','2024-12-29','expenses',10000,'expenses'),
-> ('r9','e4','2024-12-30','income',18000,'income');
Query OK, 10 rows affected (0.01 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

record_id	employee_id	record_date	description	amount	record_type
r0	e6	2024-12-30	income	15700	income
r1	e3	2024-12-29	tax	1500	tax
r2	e9	2024-12-28	expenses	7000	expenses
r3	e0	2024-12-30	income	23000	income
r4	e2	2024-12-31	tax	3000	tax
r5	e1	2024-12-29	expenses	6000	expenses
r6	e7	2024-12-28	income	14000	income
r7	e5	2024-12-31	tax	2000	tax
r8	e8	2024-12-29	expenses	10000	expenses
r9	e4	2024-12-30	income	18000	income

10 rows in set (0.00 sec)