

CASESTUDY-PAYXERT

PAYROLL MANAGEMENT SYSTEM

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This PayXpert application contains modules like

- Entity
- Dao
- Exception
- Util
- Pyunit
- Main

OUTPUT:

```
Connection successful
Connection successful

PayXpert Payroll Management System
1. Add Employee
2. Get Employee by ID
3. Get All Employees
4. Update Employee
5. Remove Employee
6. Get Payroll by ID
7. Add Payroll
8. Get Payrolls for Employee
9. Get Payrolls for Period
10. Calculate Tax
11. Get Tax By Id
12. Get Tax for Employee
13. Get Tax for Year
14. Get Financial Record by ID
15. Add Financial Record
16. Get Financial Records for Employee
17. Get Financial Records for Date
18. Exit
Enter your choice (1-18):
```

1.ADD EMPLOYEE

```
Enter your choice (1-18): 1
Enter first name: Ratan
Enter last name: Tata
Enter date of birth (YYYY-MM-DD): 1988-04-30
Enter gender: Male
Enter email: ratantata@gmail.com
Enter phone number: 99846885645
Enter address: Chennai
Enter position: Founder
Enter joining date (YYYY-MM-DD): 2004-05-24
Enter termination date (YYYY-MM-DD): 2024-10-09
Employee added successfully!
```

2.GET EMPLOYEE BY ID:

```
Enter your choice (1-18): 2
Enter employee ID: 4
Employee id :4,first_name:Vicky,last_name:Trevor,dob:2004-09-08,gender:Male,email:vicky@gmail.com,phone:9349514173,address:Pondy,position:Tester,joining_date:2022-04-09,termination_date:2027-04-09
```

3.GET ALL EMPLOYEES:

We can check the added employee is displayed here.(employee_id=11)

```
Enter your choice (1-18): 3
Employee id :1,first_name:Nidya,last_name:Thirshala,dob:2003-04-18,gender:Female,email:nidya@gmail.com,phone:892504989,address:Chennai,position:Trainee,joining_date:2023-09-12,termination_date:2026-09-12
Employee id :2,first_name:Jaya,last_name:Mala,dob:2002-07-12,gender:Female,email:jaya@gmail.com,phone:7094035067,address:Chennai,position:Teacher,joining_date:2023-08-07,termination_date:2025-08-07
Employee id :3,first_name:Mega,last_name:Nathan,dob:1998-04-13,gender:Male,email:mega@gmail.com,phone:9443908865,address:Villupuram,position:Engineer,joining_date:2016-09-08,termination_date:2024-09-08
Employee id :4,first_name:Vicky,last_name:Trevor,dob:2004-09-08,gender:Male,email:vicky@gmail.com,phone:9349514173,address:Pondy,position:Tester,joining_date:2022-04-09,termination_date:2027-04-09
Employee id :5,first_name:Victor,last_name:Raja,dob:2002-09-14,gender:Male,email:raja@gmail.com,phone:8382992445,address:Pondy,position>Data Engineer,joining_date:2023-08-06,termination_date:2028-08-06
Employee id :6,first_name:Sam,last_name:Mithra,dob:1999-09-02,gender:Female,email:mithra@gmail.com,phone:729028095,address:Chennai,position:Trainee,joining_date:2020-09-08,termination_date:2027-09-08
Employee id :7,first_name:Maha,last_name:Lakshmi,dob:2001-06-04,gender:Female,email:maha@gmail.com,phone:8968978735,address:Coimabtoe,position:Content Writer,joining_date:2021-09-02,termination_date:2024-09-02
Employee id :8,first_name:Pooja,last_name:Hegde,dob:1997-09-02,gender:Female,email:pooja@gmail.com,phone:9890743556,address:Coimbatore,position:Doctor,joining_date:2017-04-06,termination_date:2026-04-06
Employee id :9,first_name:Joseph,last_name:Vijay,dob:1999-09-15,gender:Male,email:joseph@gmail.com,phone:8983756875,address:Pondy,position:Software Engineer,joining_date:2020-08-09,termination_date:2024-08-09
Employee id :10,first_name:Vijay,last_name:Sethupathi,dob:2000-07-19,gender:Male,email:vijay@gmail.com,phone:9748549363,address:Villupuram,position:Trainee,joining_date:2024-09-27,termination_date:2030-09-27
Employee id :11,first_name:Ratan,last_name:Tata,dob:1988-04-30,gender:Male,email:ratantata@gmail.com,phone:9875978757,address:Chennai,position:Founder,joining_date:2004-05-24,termination_date:2024-10-09
```

4.UPDATE EMPLOYEE:

```
Enter your choice (1-18): 4
Enter employee ID to update: 7
Enter first name: Maha
Enter last name: Raghan
Enter date of birth (YYYY-MM-DD): 2002-06-06
Enter gender: Female
Enter email: raghan@gmail.com
Enter phone number: 8576987686
Enter address: Coimbatore
Enter position: Content Creator
Enter joining date (YYYY-MM-DD): 2021-09-02
Enter termination date (YYYY-MM-DD): 2026-09-08
Employee updated successfully!
```

5.REMOVE EMPLOYEE

```
Enter your choice (1-18): 5
Enter employee ID to remove: 10
Employee with ID 10 is removed successfully.
```

6.GET PAYROLL BY ID:

```
Enter your choice (1-18): 6
Enter payroll ID: 101
employee_id:101,PayPeriodStartDate:1,PayPeriodEndDate:2023-09-12,Basicsalary:2026-09-12,OvertimePay:50000.00,Ded
uctions:5000.00,Netsalary:2000.00
```

7.ADD PAYROLL:

```
Enter your choice (1-18): 7
Enter the employee id: 5
Enter Pay period start date (YYYY-MM-DD): 2020-09-30
Enter Pay period end date (YYYY-MM-DD): 2027-07-06
Enter Basic salary: 700000
Enter Overtime Pay: 5000
Enter Deductions: 500
Payroll generated successfully
```

8.GET PAYROLLS FOR EMPLOYEE:

```
Enter your choice (1-18): 8
Enter employee ID: 7
Connection successful
Payroll_id:107,employee_id:7,PayPeriodStartDate:2021-09-02,PayPeriodEndDate:2024-09-02,BasicSalary:35000.00,OvertimePay:2000.00,Deductions:1000.00,NetSalary:36000.00
```

9.GET PAYROLLS FOR PERIOD:

```
Enter your choice (1-18): 9
Enter start date (YYYY-MM-DD): 2020-09-08
Enter end date (YYYY-MM-DD): 2027-09-08
PayrollID:101, EmployeeID:1, PayPeriodStartDate:2023-09-12, PayPeriodEndDate:2026-09-12, BasicSalary:50000.00, OvertimePay:5000.00, Deductions:2000.00, NetSalary:53000.00
PayrollID:102, EmployeeID:2, PayPeriodStartDate:2023-08-07, PayPeriodEndDate:2025-08-07, BasicSalary:45000.00, OvertimePay:4000.00, Deductions:1500.00, NetSalary:47500.00
PayrollID:104, EmployeeID:4, PayPeriodStartDate:2022-04-09, PayPeriodEndDate:2027-04-09, BasicSalary:50000.00, OvertimePay:2000.00, Deductions:1200.00, NetSalary:50800.00
PayrollID:106, EmployeeID:6, PayPeriodStartDate:2020-09-08, PayPeriodEndDate:2027-09-08, BasicSalary:55000.00, OvertimePay:4000.00, Deductions:2000.00, NetSalary:57000.00
PayrollID:107, EmployeeID:7, PayPeriodStartDate:2021-09-02, PayPeriodEndDate:2024-09-02, BasicSalary:35000.00, OvertimePay:2000.00, Deductions:1000.00, NetSalary:36000.00
PayrollID:111, EmployeeID:5, PayPeriodStartDate:2020-09-30, PayPeriodEndDate:2027-07-06, BasicSalary:70000.00, OvertimePay:5000.00, Deductions:500.00, NetSalary:704500.00
```

10.CALCULATE TAX:

```
Enter your choice (1-18): 10
Enter employee ID: 5
Enter tax year: 2026
Tax calculated successfully
```

11.GET TAX BY ID:

```
Enter your choice (1-18): 11
Enter Tax ID: 202
Tax id :202,Employee id:2,Tax year:2024,Taxable Income:450000.00,Tax Amount:20000.00
```

12.GET TAX FOR EMPLOYEE:

```
Enter your choice (1-18): 12
Enter employee ID: 5
tax_id :206,employee_id:5,Taxyear:2022,TaxableIncome:600000.00,TaxAmount:30000.00
tax_id :212,employee_id:5,Taxyear:2026,TaxableIncome:60000.00,TaxAmount:12000.00
```

13.GET TAX FOR YEAR:

```
Enter your choice (1-18): 13
Enter Tax year: 2024
tax_id :201,employee_id:1,Taxyear:2024,TaxableIncome:500000.00,TaxAmount:25000.00
tax_id :202,employee_id:2,Taxyear:2024,TaxableIncome:450000.00,TaxAmount:20000.00
tax_id :205,employee_id:2,Taxyear:2024,TaxableIncome:500000.00,TaxAmount:25000.00
```

14.GET FINANCIAL RECORD BY ID:

```
Enter your choice (1-18): 14
Enter record ID: 301
Record id :301,Employee id:1,Record date:2023-09-12,Description:Record of Income,Amount:500000.00,Record type:Income
```

15.ADD FINANCIAL RECORD:

```
Enter your choice (1-18): 15
Enter employee ID: 6
Enter record date (YYYY-MM-DD): 2024-09-09
Enter description: Record of Expense
Enter the amount: 45000
Enter record type: Expense
Finanacial Record added successfully
```

16.GET FINANCIAL RECORD FOR EMPLOYEE:

```
Enter your choice (1-18): 16
Enter employee ID: 6
Record id :306,Employee id:6,Record date:2023-09-08,Description:Record of Expense,Amount:50000.00,Record type:Expense
Record id :311,Employee id:6,Record date:2024-09-09,Description:Record of Expense,Amount:45000.00,Record type:Expense
```

17.GET FINANCIAL RECORD FOR DATE:

```
Enter your choice (1-18): 17
Enter record date (YYYY-MM-DD): 2023-08-09
Record id :309,Employee id:9,Record date:2023-08-09,Description:Record of Expense,Amount:65000.00,Record type:Expense
```

SQL TABLE

- Employee
- Payroll
- Tax
- Financial Record

Results Messages

	employee_id	Firstname	Lastname	Dateofbirth	Gender	Email	Phonenumber	Address	Position	Joiningdate	Terminationdate	
1	1	Nidya	Thirshala	2003-04-18	Female	nidya@gmail.com	892504989	Chennai	Trainee	2023-09-12	2026-09-12	
2	2	Jaya	Mala	2002-07-12	Female	jaya@gmail.com	7094035067	Chennai	Teacher	2023-08-07	2025-08-07	
3	3	Mega	Nathan	1998-04-13	Male	mega@gmail.com	9443908865	Villupuram	Engineer	2016-09-08	2024-09-08	
4	4	Vicky	Trevor	2004-09-08	Male	vicky@gmail.com	9349514173	Pondy	Tester	2022-04-09	2027-04-09	
5	5	Victor	Raja	2002-09-14	Male	raja@gmail.com	8382992445	Pondy	Data Engineer	2023-08-06	2028-08-06	
6	6	Sam	Mithra	1999-09-02	Female	mithra@gmail.com	729028095	Chennai	Trainee	2020-09-08	2027-09-08	
7	7	Maha	Lakshmi	2001-06-04	Female	maha@gmail.com	8968978735	Coimabto	Content Writer	2021-09-02	2024-09-02	
8	8	Pooja	Hegde	1997-09-02	Female	pooja@gmail.com	9890743556	Coimbatore	Doctor	2017-04-06	2026-04-06	
9	9	Joseph	Vijay	1999-09-15	Male	joseph@gmail.com	8983756875	Pondy	Software Engineer	2020-08-09	2024-08-09	

	Payroll_id	employee_id	PayPeriodStartDate	PayPeriodEndDate	BasicSalary	OvertimePay	Deductions	Netsalary	
1	101	1	2023-09-12	2026-09-12	50000.00	5000.00	2000.00	53000.00	
2	102	2	2023-08-07	2025-08-07	45000.00	4000.00	1500.00	47500.00	
3	103	3	2016-09-08	2024-09-08	60000.00	3000.00	2500.00	60500.00	
4	104	4	2022-04-09	2027-04-09	50000.00	2000.00	1200.00	50800.00	
5	105	5	2023-08-06	2028-08-06	48000.00	3000.00	2800.00	48200.00	
6	106	6	2020-09-08	2027-09-08	55000.00	4000.00	2000.00	57000.00	
7	107	7	2021-09-02	2024-09-02	35000.00	2000.00	1000.00	36000.00	
8	108	8	2017-04-06	2026-04-06	45000.00	2500.00	1000.00	46500.00	

	tax_id	employee_id	Taxyear	TaxableIncome	TaxAmount	
4	204	4	2023	500000.00	25000.00	
5	205	2	2024	500000.00	25000.00	
6	206	5	2022	600000.00	30000.00	
7	207	6	2023	400000.00	20000.00	
8	208	2	2020	500000.00	22000.00	
9	209	1	2022	700000.00	29000.00	
10	211	1	2026	60000.00	12000.00	
11	212	5	2026	60000.00	12000.00	

	record_id	employee_id	Recorddate	Description	Amount	Recordtype	
1	301	1	2023-09-12	Record of Income	500000.00	Income	
2	302	2	2024-08-07	Record of Tax	450000.00	Tax	
3	303	3	2020-09-08	Record of Expe...	300000.00	Expense	
4	304	4	2022-04-09	Record of Income	500000.00	Income	
5	305	5	2024-03-09	Record of Tax	500000.00	Tax	
6	306	6	2023-09-08	Record of Expe...	50000.00	Expense	
7	307	7	2017-04-06	Record of Income	450000.00	Income	

PYUNIT:

```
Data/Local/Programs/Python/Python39/python.exe C:/Users/Thirshala/OneDrive/Documents/
/casestudy_PayXpert/pyunit/Unittest.py"
Connection successful
.Connection successful
.Connection successful
.Connection successful
.Connection successful
.
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Ran 5 tests in 1.308s

OK
```

