CASESTUDY-PAYXERT

PAYROLL MANAGEMENT SYSTEM

Name: Rohan Mahajan

This PayXpert application contains modules like

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

OUTPUT:

```
Connection established successfully.
Service instances initialized successfully.

===== Payroll Management System Menu =====
1. Add a new 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
Select an option: 1
```

1.ADD EMPLOYEE

```
Select an option: 1


Enter First Name: Vaibhav
Enter Last Name: Patil
Enter Date of Birth (YYYY-MM-DD): 2000-07-12
Enter Gender: Male
Enter Email: vaibhav@test.com
Enter Phone: 9174804241
Enter Address: mg road, Burhanpur
Enter Position: tester
Enter Joining Date (YYYY-MM-DD): 2020-07-05
Employee added successfully.
```

2.GET EMPLOYEE BY ID:

```
Select an option: 2


Enter Employee ID :4
Employee ID: 4
Name: priya patel
DOB: 1995-02-28
Gender: female
Email: priya.patel@example.com
Phone: 9176543210
Address: juhu beach, mumbai
Position: designer
Joining Date: 2021-06-01
Termination Date: None
```

3.GET ALL EMPLOYEES:

We can check the added employee is displayed here.(employee_id=14)

```
Select an option: 3


Employee ID: 1
Name: rohan mahajan
DOB: 1990-07-07
Gender: male
Email: rohan@example.com
Phone: 9171835808
Address: mg road, khandwa
Position: sde
Joining Date: 2024-05-06
Termination Date: None


Next

Employee ID: 2
Name: sneha sharma
DOB: 1985-03-15
Gender: female
Email: sneha.sharma@example.com
Phone: 9182736450
Address: baker street, mumbai
Position: hr manager
Joining Date: 2023-01-10
Termination Date: None


Next

Employee ID: 3
Name: amit verma
DOB: 1988-11-22
Gender: male
Email: amit.verma@example.com
Phone: 9198765432
Address: connaught place, delhi
Position: analyst
Joining Date: 2022-09-15
Termination Date: None


Next
```

```
Employee ID: 4
Name: priya patel
DOB: 1995-02-28
Gender: female
Email: priya.patel@example.com
Phone: 9176543210
Address: juhu beach, mumbai
Position: designer
Joining Date: 2021-06-01
Termination Date: None


Next

Employee ID: 5
Name: rohit kumar
DOB: 1993-05-12
Gender: male
Email: rahul.kumar@example.com
Phone: 9187654321
Address: mg road, indore
Position: developer
Joining Date: 2020-11-20
Termination Date: None


Next

Employee ID: 6
Name: anjali singh
DOB: 1992-08-30
Gender: female
Email: anjali.singh@example.com
Phone: 9165432109
Address: nehru place, delhi
Position: tester
Joining Date: 2023-03-15
Termination Date: None


Next

Employee ID: 7
Name: vikram reddy
DOB: 1987-12-25
Gender: male
Email: vikram.reddy@example.com
Phone: 9112345678
Address: bangalore road, hyderabad
Position: devops engineer
Joining Date: 2022-04-10
Termination Date: None
```

Next

Employee ID: 8
Name: neha gupta
DOB: 1994-09-18
Gender: female
Email: neha.gupta@example.com
Phone: 9190123456
Address: andheri east, mumbai
Position: marketing executive
Joining Date: 2023-07-20
Termination Date: None

Next

Employee ID: 9
Name: karan chopra
DOB: 1991-06-14
Gender: male
Email: karan.chopra@example.com
Phone: 9178901234
Address: sector 17, chandigarh
Position: sales manager
Joining Date: 2024-01-05
Termination Date: None

Next

Employee ID: 10
Name: pooja bansal
DOB: 1989-10-30
Gender: female
Email: pooja.bansal@example.com
Phone: 9187654321
Address: navi mumbai
Position: finance analyst
Joining Date: 2023-02-18
Termination Date: None

Next

Next

Employee ID: 12
Name: Nidya Trishala
DOB: 2002-05-04
Gender: female
Email: nidya@example.com
Phone: 9174850748
Address: mg road, trivandrum
Position: SDE
Joining Date: 2024-07-05
Termination Date: None

Next

Employee ID: 13
Name: Sanjit Jha
DOB: 1980-04-02
Gender: Male
Email: sanjit@example.com
Phone: 914758623
Address: bandra, mumbai
Position: Tutor
Joining Date: 2010-01-05
Termination Date: None

Next

Employee ID: 14
Name: Vaibhav Patil
DOB: 2000-07-12
Gender: Male
Email: vaibhav@test.com
Phone: 9174804241
Address: mg road, Burhanpur
Position: tester
Joining Date: 2020-07-05
Termination Date: None

4.UPDATE EMPLOYEE:

```
Select an option: 4


Enter Employee ID: 13
Enter First Name:
Enter Last Name:
Enter Date of Birth (YYYY-MM-DD):
Enter Gender:
Enter Email:
Enter Phone: 9174814241
Enter Address:
Enter Position: SDE
Enter Joining Date (YYYY-MM-DD):
Employee updated successfully.
```

5.REMOVE EMPLOYEE

```
Select an option: 5


Enter Employee ID to remove: 13
Employee removed successfully.
```

6.GET PAYROLL BY ID:

```
Select an option: 6


Enter Payroll Id: 106
Payroll ID: 106
Employee ID: 6
Start Date: 2023-03-01
End Date: 2023-03-31
Basic Salary: 48000.00
Overtime Pay: 1500.00
Deductions: 1200.00
Net Salary: 48300.00
```

7.ADD PAYROLL:

```
Select an option: 7


Enter Employee ID: 10
Enter Payroll Start Date (YYYY-MM-DD): 2023-05-01
Enter Payroll End Date (YYYY-MM-DD): 2024-05-01
Enter Basic Salary: 75000
Enter Overtime Pay: 0
Enter Deductions: 0
Payroll generated successfully.
```

8.GET PAYROLLS FOR EMPLOYEE:

```
Select an option: 8


Enter employee ID: 9
Payroll ID: 109
Employee ID: 9
Start Date: 2024-02-01
End Date: 2024-02-29
Basic Salary: 60000.00
Overtime Pay: 3000.00
Deductions: 1500.00
Net Salary: 61500.00
```

9.GET PAYROLLS FOR PERIOD:

```
Select an option: 9


Enter dates for generating payroll for a particular period
Enter start date (YYYY-MM-DD): 2023-07-01
Enter end date (YYYY-MM-DD): 2023-07-31
Payroll ID: 108
Employee ID: 8
Start Date: 2023-07-01
End Date: 2023-07-31
Basic Salary: 53000.00
Overtime Pay: 2500.00
Deductions: 1800.00
Net Salary: 53700.00
```

10.CALCULATE TAX:

```
Select an option: 10


Enter Employee ID: 4
Enter Tax Year: 2023
Employee ID: 4
Tax Year: 2023
Taxable Income: 60000
Tax Amount (20%): 12000.0
Tax calculated successfully.
```

11.GET TAX BY ID:

```
Select an option: 11


Enter Tax ID: 204
Tax ID: 204
Employee ID: 4
Tax Year: 2023
Taxable Income: 450000.00
Tax Amount: 67500.00
```

12.GET TAX FOR EMPLOYEE:

```
Select an option: 12


Enter Employee ID: 5
Tax ID: 205
Employee ID: 5
Tax Year: 2022
Taxable Income: 700000.00
Tax Amount: 105000.00
Tax ID: 213
Employee ID: 5
Tax Year: 2022
Taxable Income: 60000.00
Tax Amount: 12000.00
```

13.GET TAX FOR YEAR:

```
Select an option: 13


Enter Tax Year: 2024
Tax ID: 203
Employee ID: 3
Tax Year: 2024
Taxable Income: 550000.00
Tax Amount: 82500.00
Tax ID: 211
Employee ID: 3
Tax Year: 2024
Taxable Income: 60000.00
Tax Amount: 12000.00
Tax ID: 212
Employee ID: 3
Tax Year: 2024
Taxable Income: 60000.00
Tax Amount: 12000.00
Tax ID: 214
Employee ID: 1
Tax Year: 2024
Taxable Income: 60000.00
Tax Amount: 12000.00
```

14.GET FINANCIAL RECORD BY ID:

```
Select an option: 14


Enter Record ID: 304
Record ID: 304
Employee ID: 4
Record Date: 2024-06-25
Description: travel allowance
Amount: 2500.50
Type: income
```

15.ADD FINANCIAL RECORD:

```
Select an option: 15


Enter Employee ID: 5
Enter Record Date: 2023-11-04
Enter Description: tax payment
Enter Amount: 45000
Enter Record Type (income/expense/tax): tax
Financial record added successfully.
```

16.GET FINANCIAL RECORD FOR EMPLOYEE:

```
Select an option: 16


Enter Employee Id: 6
Record ID: 306
Employee ID: 6
Record Date: 2023-03-15
Description: salary payment
Amount: 48050.50
Type: income
```

17.GET FINANCIAL RECORD FOR DATE:

```
Select an option: 17


Enter Date of Record: 2022-04-27
Record ID: 307
Employee ID: 7
Record Date: 2022-04-27
Description: equipment purchase
Amount: 150000.50
Type: expense
```

SQL TABLE

- **Employee**
- **Payroll**
- **Tax**
- **Financial Record**

	employeeId	firstName	lastName	dateOfBirth	gender	email	phoneNumber	address	position	joiningDate	terminationDate
1	1	rohan	mahajan	1990-07-07	male	rohan@example.com	9171835808	mg road, khandwa	sde	2024-05-06	NULL
2	2	sneha	sharma	1985-03-15	female	sneha.sharma@example.com	9182736450	baker street, mumbai	hr manager	2023-01-10	NULL
3	3	amit	verma	1988-11-22	male	amit.verma@example.com	9198765432	connaught place, delhi	analyst	2022-09-15	NULL
4	4	priya	patel	1995-02-28	female	priya.patel@example.com	9176543210	juhu beach, mumbai	designer	2021-06-01	NULL
5	5	rohit	kumar	1993-05-12	male	rahul.kumar@example.com	9187654321	mg road, indore	developer	2020-11-20	NULL
6	6	anjali	singh	1992-08-30	female	anjali.singh@example.com	9165432109	nehru place, delhi	tester	2023-03-15	NULL
7	7	vikram	reddy	1987-12-25	male	vikram.reddy@example.com	9112345678	bangalore road, hyderabad	devops engineer	2022-04-10	NULL
8	8	neha	gupta	1994-09-18	female	neha.gupta@example.com	9190123456	andheri east, mumbai	marketing executive	2023-07-20	NULL
9	9	karan	chopra	1991-06-14	male	karan.chopra@example.com	9178901234	sector 17, chandigarh	sales manager	2024-01-05	NULL
10	10	pooja	bansal	1989-10-30	female	pooja.bansal@example.com	9187654321	navi mumbai	finance analyst	2023-02-18	NULL
11	12	Nidya	Trishala	2002-05-04	female	nidya@example.com	9174850748	mg road, trivandrum	SDE	2024-07-05	NULL
12	14	Vaibhav	Patil	2000-07-12	Male	vaibhav@test.com	9174804241	mg road, Burhanpur	tester	2020-07-05	NULL

	payrollId	employeeId	payPeriodStartDate	payPeriodEndDate	basicSalary	overTimePay	deductions	netSalary
1	101	1	2024-05-01	2024-05-31	50000.00	5000.00	2000.00	53000.00
2	102	2	2024-01-01	2024-01-31	60000.00	3000.00	1500.00	61500.00
3	103	3	2024-09-01	2024-09-30	55000.00	4000.00	2500.00	56500.00
4	104	4	2024-06-01	2024-06-30	45000.00	2000.00	1000.00	46000.00
5	105	5	2024-11-01	2024-11-30	70000.00	6000.00	3000.00	73000.00
6	106	6	2023-03-01	2023-03-31	48000.00	1500.00	1200.00	48300.00
7	107	7	2022-04-01	2022-04-30	75000.00	3500.00	4000.00	74500.00
8	108	8	2023-07-01	2023-07-31	53000.00	2500.00	1800.00	53700.00
9	109	9	2024-02-01	2024-02-29	60000.00	3000.00	1500.00	61500.00
10	110	10	2023-12-01	2023-12-31	55000.00	2000.00	1000.00	56000.00
11	111	4	2024-04-01	2024-04-30	45000.00	4000.00	1500.00	47500.00
12	113	10	2023-05-01	2024-05-01	75000.00	0.00	0.00	75000.00

	taxId	employeeId	taxYear	taxableIncome	taxAmount
1	201	1	2023	500000.00	75000.00
2	202	2	2023	600000.00	90000.00
3	203	3	2024	550000.00	82500.00
4	204	4	2023	450000.00	67500.00
5	205	5	2022	700000.00	105000.00
6	206	6	2023	480000.00	72000.00
7	207	7	2022	750000.00	112500.00
8	208	8	2023	530000.00	79500.00
9	209	9	2023	900000.00	900000.00
10	210	10	2023	750000.00	750000.00
11	211	3	2024	60000.00	12000.00
12	212	3	2024	60000.00	12000.00
13	213	5	2022	60000.00	12000.00
14	214	1	2024	60000.00	12000.00
15	215	4	2023	60000.00	12000.00

	recordId	employeeId	reccordDate	description	amount	recordType
1	301	1	2024-05-15	salary payment	50050.50	income
2	302	2	2024-01-20	bonus payment	10050.50	income
3	303	3	2024-09-10	expense reimbursement	5000.50	expense
4	304	4	2024-06-25	travel allowance	2500.50	income
5	305	5	2024-11-30	medical expense	2000.50	expense
6	306	6	2023-03-15	salary payment	48050.50	income
7	307	7	2022-04-27	equipment purchase	150000.50	expense
8	308	8	2023-07-18	salary payment	53050.50	income
9	309	9	2019-02-12	tax payment	150000.50	tax
10	310	10	2018-12-31	investment income	200000.50	income
11	311	4	2024-05-04	tax	75000.00	tax
12	312	5	2024-07-02	tax payment	80000.00	tax
13	313	5	2023-11-04	tax payment	45000.00	tax

Pyunit:

```
Connection successful
.Connection successful
.Connection successful
.Connection successful
.Connection successful
.
----------------------------------------------------------------------
Ran 5 tests in 1.308s

OK
```