**Exercise 1: Employee Management System**

Customers

| customer\_id | first\_name | last\_name | age | country |
| --- | --- | --- | --- | --- |
| 1 | John | Doe | 31 | USA |
| 2 | Robert | Luna | 22 | USA |
| 3 | David | Robinson | 22 | UK |
| 4 | John | Reinhardt | 25 | UK |
| 5 | Betty | Doe | 28 | UAE |

Departments

| department\_id | department\_name |
| --- | --- |
| 1 | Human Resources |
| 2 | Finance |
| 3 | Engineering |
| 4 | Sales |
| 5 | Marketing |

Employees

| employee\_id | first\_name | last\_name | department\_id | hire\_date |
| --- | --- | --- | --- | --- |
| 1 | John | Doe | 3 | 2023-01-15 |
| 2 | Jane | Smith | 2 | 2022-11-20 |
| 3 | Emily | Johnson | 1 | 2023-05-30 |
| 4 | Michael | Brown | 4 | 2021-07-10 |
| 5 | Linda | Davis | 3 | 2020-03-22 |
| 6 | Chris | Wilson | 5 | 2021-12-01 |
| 7 | Patricia | Taylor | 1 | 2022-03-15 |
| 8 | Robert | Anderson | 2 | 2020-05-25 |
| 9 | Jennifer | Thomas | 3 | 2019-08-19 |
| 10 | Daniel | Jackson | 4 | 2023-02-10 |
| 11 | Laura | Harris | 5 | 2021-11-05 |
| 12 | James | Martin | 1 | 2020-07-15 |
| 13 | David | Thompson | 2 | 2022-01-30 |
| 14 | Sarah | Garcia | 3 | 2021-09-20 |
| 15 | Karen | Martinez | 4 | 2023-04-25 |
| 16 | Nancy | Rodriguez | 5 | 2020-02-28 |
| 17 | Charles | Lewis | 1 | 2021-06-13 |
| 18 | Thomas | Lee | 2 | 2022-08-03 |
| 19 | Barbara | Walker | 3 | 2021-01-21 |
| 20 | Steven | Hall | 4 | 2023-03-17 |

Orders

| order\_id | item | amount | customer\_id |
| --- | --- | --- | --- |
| 1 | Keyboard | 400 | 4 |
| 2 | Mouse | 300 | 4 |
| 3 | Monitor | 12000 | 3 |
| 4 | Keyboard | 400 | 1 |
| 5 | Mousepad | 250 | 2 |

Salaries

| employee\_id | salary | from\_date | to\_date |
| --- | --- | --- | --- |
| 1 | 80000 | 2023-01-15 | 9999-01-01 |
| 2 | 95000 | 2022-11-20 | 9999-01-01 |
| 3 | 60000 | 2023-05-30 | 9999-01-01 |
| 4 | 70000 | 2021-07-10 | 9999-01-01 |
| 5 | 120000 | 2020-03-22 | 9999-01-01 |
| 6 | 55000 | 2021-12-01 | 9999-01-01 |
| 7 | 62000 | 2022-03-15 | 9999-01-01 |
| 8 | 87000 | 2020-05-25 | 9999-01-01 |
| 9 | 115000 | 2019-08-19 | 9999-01-01 |
| 10 | 72000 | 2023-02-10 | 9999-01-01 |
| 11 | 58000 | 2021-11-05 | 9999-01-01 |
| 12 | 63000 | 2020-07-15 | 9999-01-01 |
| 13 | 91000 | 2022-01-30 | 9999-01-01 |
| 14 | 75000 | 2021-09-20 | 9999-01-01 |
| 15 | 68000 | 2023-04-25 | 9999-01-01 |
| 16 | 54000 | 2020-02-28 | 9999-01-01 |
| 17 | 66000 | 2021-06-13 | 9999-01-01 |
| 18 | 92000 | 2022-08-03 | 9999-01-01 |
| 19 | 74000 | 2021-01-21 | 9999-01-01 |
| 20 | 79000 | 2023-03-17 | 9999-01-01 |

Shippings

| shipping\_id | status | customer |
| --- | --- | --- |
| 1 | Pending | 2 |
| 2 | Pending | 4 |
| 3 | Delivered | 3 |
| 4 | Pending | 5 |
| 5 | Delivered | 1 |

**OutPuts:**

**Write a query to find all employees who have been hired in the last year.**

**employee\_id | first\_name | last\_name | hire\_date**

1 John | Doe | 2023-01-15

3 | Emily | Johnson | 2023-05-30

10 | Daniel | Jackson | 2023-02-10

15 | Karen | Martinez | 2023-04-25

21 | Michelle | Clark | 2023-06-10

22 | Alexander | Wright | 2023-03-05

23 | Sophia | King | 2023-01-12

24 | William | Scott | 2022-12-20

25 | Olivia | Green | 2022-11-15

26 | Daniel | Adams | 2022-10-25

27 | Mia | Baker | 2022-09-30

28 | Ethan | Gonzalez | 2022-08-05

**Write a query to calculate the total salary expenditure for each department.**

| department\_id | department\_name | total\_salary\_expenditure |
| --- | --- | --- |
| 1 | Human Resources | 251000 |
| 2 | Finance | 365000 |
| 3 | Engineering | 464000 |
| 4 | Sales | 289000 |
| 5 | Marketing | 167000 |

**- Write a query to find the top 5 highest-paid employees along with their**

**department names.**

| employee\_id | first\_name | last\_name | department\_name | salary |
| --- | --- | --- | --- | --- |
| 5 | Linda | Davis | Engineering | 120000 |
| 9 | Jennifer | Thomas | Engineering | 115000 |
| 2 | Jane | Smith | Finance | 95000 |
| 18 | Thomas | Lee | Finance | 92000 |
| 13 | David | Thompson | Finance | 91000 |