

Implementation

Functional Requirements

1. Find the name of the Company an Employee works for with Employee Company_ID and Company Cname.

	Company_ID	Fname	Lname	Cname	Location
►	1	Kim	Boucha	Companee	Atlanta
	1	Hanson	Deck	Companee	Atlanta
	1	Victor	Eeyus	Companee	Atlanta
	1	Lisa	Newcar	Companee	Atlanta
	1	Jason	Response	Companee	Atlanta
	2	John	Apple	WorkIt	New York
	2	Jesse	Gonzalez	WorkIt	New York
	2	April	Ludgate	WorkIt	New York
	2	John	Smith	WorkIt	New York
	2	Jane	Thompson	WorkIt	New York
	5	Scooby	Doo	PrimeFinacial	Seattle
	5	Junie	Jones	PrimeFinacial	Seattle
	5	Daniel	Miller	PrimeFinacial	Seattle
	5	Arya	Stark	PrimeFinacial	Seattle
	5	Alice	Wonder	PrimeFinacial	Seattle

2. Find the name of the Department an Employee is a part of with Employee EmployeeID and Department Dname. Display the name of the Company they work for as well.

	EmployeeID	Fname	Lname	Dname	Cname
►	500005	Alice	Wonder	Information Security	PrimeFinacial
	200003	April	Ludgate	Reception	WorkIt
	500003	Arya	Stark	Diversity/Inclusion	PrimeFinacial
	500001	Daniel	Miller	Marketing	PrimeFinacial
	100001	Hanson	Deck	App Development	Companee
	200002	Jane	Thompson	Management	WorkIt
	100005	Jason	Response	DevOps	Companee
	200005	Jesse	Gonzalez	Human Resources	WorkIt
	200004	John	Apple	Management	WorkIt
	200001	John	Smith	Human Resources	WorkIt
	500002	Junie	Jones	Marketing	PrimeFinacial
	100003	Kim	Boucha	Engineering	Companee
	100002	Lisa	Newcar	Engineering	Companee
	500004	Scooby	Doo	Diversity/Inclusion	PrimeFinacial
	100004	Victor	Eeyus	Engineering	Companee

- Find the speed test of an employee with an EmployeeID and Performance SpeedTests. Order by the fastest time and companyID. Display the name of the company as well.

	SpeedTests	Company_ID	Fname	Lname	Cname
▶	NULL	1	Lisa	Newcar	Companee
	NULL	1	Victor	Eeyus	Companee
	NULL	1	Jason	Response	Companee
	NULL	2	John	Smith	WorkIt
	NULL	2	Jane	Thompson	WorkIt
	NULL	2	April	Ludgate	WorkIt
	NULL	2	John	Apple	WorkIt
	NULL	2	Jesse	Gonzalez	WorkIt
	NULL	5	Daniel	Miller	PrimeFinacial
	NULL	5	Arya	Stark	PrimeFinacial
	00:43:10	1	Kim	Boucha	Companee
	00:45:30	5	Junie	Jones	PrimeFinacial
	00:58:40	1	Hanson	Deck	Companee
	01:00:00	1	Hanson	Deck	Companee
	01:01:10	5	Alice	Wonder	PrimeFinacial
	01:06:10	5	Scooby	Doo	PrimeFinacial

- Find an employee's payout with EmployeeID, Payout PaystubID, and Payout Paystub. Display the first name and last name of the employee and the Company's name.

	PaystubID	Cname	Fname	Lname	paystub
▶	101	Companee	Hanson	Deck	53400.00
	102	Companee	Lisa	Newcar	45040.00
	103	Companee	Kim	Boucha	62560.00
	104	Companee	Victor	Eeyus	57130.00
	105	Companee	Jason	Response	70420.00
	201	WorkIt	John	Smith	31390.00
	202	WorkIt	Jane	Thompson	60852.00
	203	WorkIt	April	Ludgate	32190.00
	204	WorkIt	John	Apple	50544.00
	205	WorkIt	Jesse	Gonzalez	35120.00
	501	PrimeFinacial	Daniel	Miller	61800.00
	502	PrimeFinacial	Junie	Jones	11432.00
	503	PrimeFinacial	Arya	Stark	42570.00
	504	PrimeFinacial	Scooby	Doo	45420.00
	505	PrimeFinacial	Alice	Wonder	66740.00

5. Find an employee's payments received with Payments Ptotal and Employee EmployeeID. Display the BaseSalary, Bonus, and LeavePay. Order by BaseSalary.

	Company_ID	Fname	Lname	BaseSalary	Bonus	leavePay	payments_Total
▶	1	Lisa	Newcar	40000	4000	10000	54000
	2	John	Smith	40000	500	1000	41500
	2	April	Ludgate	40000	500	1000	41500
	2	Jesse	Gonzalez	40000	0	2000	42000
	1	Hanson	Deck	50000	5000	10000	65000
	1	Victor	Eeyus	55000	5500	10000	70500
	5	Arya	Stark	55000	1000	2000	58000
	5	Scooby	Doo	55000	1000	2000	58000
	1	Kim	Boucha	60000	6000	10000	76000
	2	John	Apple	65000	900	2000	67900
	1	Jason	Response	70000	7000	10000	87000
	2	Jane	Thompson	70000	1200	2000	73200
	5	Daniel	Miller	72000	2000	1000	75000
	5	Alice	Wonder	80000	1500	2000	83500
	5	Junie	Jones	130000	3300	1000	134300

6. Find an employee's deductions received with Deductions Dtotal and Employee EmployeeID. Display Tax deductions and Benefits deductions.

	Company_ID	Fname	Lname	tax_deduction_total	benefits_deduction_total	deductions_Total
▶	2	John	Smith	5810.00	4300	10110.00
	2	April	Ludgate	5810.00	3500	9310.00
	2	Jesse	Gonzalez	5880.00	1000	6880.00
	1	Lisa	Newcar	7560.00	1400	8960.00
	1	Hanson	Deck	9100.00	2500	11600.00
	5	Arya	Stark	9280.00	6150	15430.00
	5	Scooby	Doo	9280.00	3300	12580.00
	2	John	Apple	9506.00	7850	17356.00
	1	Victor	Eeyus	9870.00	3500	13370.00
	2	Jane	Thompson	10248.00	2100	12348.00
	1	Kim	Boucha	10640.00	2800	13440.00
	5	Daniel	Miller	12000.00	1200	13200.00
	1	Jason	Response	12180.00	4400	16580.00
	5	Alice	Wonder	13360.00	3400	16760.00
	5	Junie	Jones	21488.00	3100	24588.00

7. Find all salaries that are greater than 55000. Order by company name and department name.

	Cname	Dname	Fname	Lname	BaseSalary
►	Companee	DevOps	Jason	Response	70000
	Companee	Engineering	Kim	Boucha	60000
	Companee	Engineering	Victor	Eeyus	55000
	PrimeFinacial	Diversity/Inclusion	Arya	Stark	55000
	PrimeFinacial	Diversity/Inclusion	Scooby	Doo	55000
	PrimeFinacial	Information Security	Alice	Wonder	80000
	PrimeFinacial	Marketing	Daniel	Miller	72000
	PrimeFinacial	Marketing	Junie	Jones	130000
	WorkIt	Management	Jane	Thompson	70000
	WorkIt	Management	John	Apple	65000

8. Find all the employees that had a leave fromDate and toDate in 2020. Order by Company name.

	Cname	Fname	Lname	fromDate	toDate
►	Companee	Lisa	Newcar	2020-11-25	2020-12-01
	Companee	Victor	Eeyus	2020-10-25	2020-11-01
	Companee	Hanson	Deck	2020-11-28	2020-12-13
	Companee	Kim	Boucha	2020-09-25	2020-10-10
	Companee	Jason	Response	2020-06-25	2020-07-08
	PrimeFinacial	Alice	Wonder	2020-12-13	2020-12-27
	WorkIt	April	Ludgate	2020-08-19	2020-09-01
	WorkIt	John	Apple	2020-01-13	2020-01-26
	WorkIt	John	Smith	2020-02-19	2020-03-01
	WorkIt	Jane	Thompson	2020-04-13	2020-04-26
	WorkIt	Jesse	Gonzalez	2020-10-16	2020-10-28

9. Find how much an employee's payout goes to taxes with Tax StateTax, FederalTax and Employee EmployeeID. Order by Company name.

	Cname	Fname	Lname	payments_Total	tax_deduction_total
►	Companee	Hanson	Deck	65000	9100.00
	Companee	Lisa	Newcar	54000	7560.00
	Companee	Kim	Boucha	76000	10640.00
	Companee	Victor	Eeyus	70500	9870.00
	Companee	Jason	Response	87000	12180.00
	PrimeFinacial	Daniel	Miller	75000	12000.00
	PrimeFinacial	Junie	Jones	134300	21488.00
	PrimeFinacial	Arya	Stark	58000	9280.00
	PrimeFinacial	Scooby	Doo	58000	9280.00
	PrimeFinacial	Alice	Wonder	83500	13360.00
	WorkIt	John	Smith	41500	5810.00
	WorkIt	Jane	Thompson	73200	10248.00
	WorkIt	April	Ludgate	41500	5810.00
	WorkIt	John	Apple	67900	9506.00
	WorkIt	Jesse	Gonzalez	42000	5880.00

10. Find which employees have greater than 3 absences and tardies. Order by company name and department name.

	Cname	Dname	Fname	Lname	Absences	Tardies
►	Companee	DevOps	Jason	Response	6	5
	PrimeFinacial	Diversity/Inclusion	Arya	Stark	5	4

11. Find out how much an employee's payout goes to benefits with BenefitsID, Benefits Retirement, Benefits Insurance and EmployeeID. Order by Company name.

	Cname	Fname	Lname	payments_Total	benefits_deduction_total
►	Companee	Hanson	Deck	65000	2500
	Companee	Lisa	Newcar	54000	1400
	Companee	Kim	Boucha	76000	2800
	Companee	Victor	Eeyus	70500	3500
	Companee	Jason	Response	87000	4400
	PrimeFinacial	Daniel	Miller	75000	1200
	PrimeFinacial	Junie	Jones	134300	3100
	PrimeFinacial	Arya	Stark	58000	6150
	PrimeFinacial	Scooby	Doo	58000	3300
	PrimeFinacial	Alice	Wonder	83500	3400
	WorkIt	John	Smith	41500	4300
	WorkIt	Jane	Thompson	73200	2100
	WorkIt	April	Ludgate	41500	3500
	WorkIt	John	Apple	67900	7850
	WorkIt	Jesse	Gonzalez	42000	1000

Source Code

/*Functional Requirement 1 - Find the name of the Company an employee works for with EmployeeID, Employee CID, and Company Cname*/

```
SELECT
    EMP.Company_ID,
    EMP.Fname,
    EMP.Lname,
    COM.Cname,
    COM.Location
FROM payroll.employee AS EMP
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
ORDER BY
    EMP.Company_ID,
    EMP.Lname;
```

/*Functional Requirement 2 - Find the name of the Department an Employee is a part of with EmployeeID and Department Dname. Display the name of the Company they work for as well*/

```
SELECT
    EMP.EmployeeID,
    EMP.Fname,
    EMP.Lname,
    DEPT.Dname,
    COM.Cname
FROM payroll.employee AS EMP
    LEFT JOIN payroll.department AS DEPT
    ON EMP.DID = DEPT.Department_ID
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
ORDER BY
    EMP.Fname,
    EMP.Lname;
```

/*Functional Requirement 3- Find the Speed Tests of an employee with an EmployeeID and Performance SpeedTests. Order by the fastest time and company ID. Display the name of the company as well.*/

```

SELECT
    PER.SpeedTests,
    COM.Company_ID,
    EMP.Fname,
    EMP.Lname,
    COM.Cname
FROM payroll.employee AS EMP
    LEFT JOIN payroll.performance AS PER
    ON EMP.EmployeeID = PER.Employee_ID
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
ORDER BY
    PER.SpeedTests,
    COM.Company_ID;

```

/*Functional Requirement 4 - Find an employee's payout with Employee EmployeeID, Payout PaystubID, and Payout Paystub. Display the first name and last name of the employee and the Company's name.*/

```

SELECT
    PAY.PaystubID,
    COM.Cname,
    EMP.Fname,
    EMP.Lname,
    PTUB.paystub
FROM payroll.employee AS EMP
    LEFT JOIN payroll.payout AS PAY
    ON EMP.EmployeeID = PAY.EID
    LEFT JOIN payroll.paystub AS PTUB
    ON EMP.EmployeeID = PTUB.EmployeeID
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
ORDER BY
    PAY.PaystubID

```

/*Functional Requirement 5 - Find an employee's payments received with Payments Ptotal and Employee EmployeeID. Display the BaseSalary, Bonus, and LeavePay*/

```

SELECT
    COM.Company_ID,

```

```

        EMP.Fname,
        EMP.Lname,
        SAL.BaseSalary,
        SAL.Bonus,
        LEA.leavePay,
        (IFNULL(SAL.BaseSalary,0) + IFNULL(SAL.Bonus,0) + IFNULL(LEA.leavePay,0)) as
payments_Total
FROM payroll.employee AS EMP
    LEFT JOIN payroll.salary AS SAL
    ON EMP.EmployeeID = SAL.EmpID
    LEFT JOIN payroll.leavep AS LEA
    ON EMP.EmployeeID = LEA.Em_ID
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
GROUP BY
    EMP.Fname,
    EMP.Lname
ORDER BY
    SAL.BaseSalary;

```

/*Functional Requirement 6 - Find an employee's deductions received with Deductions Dtotal and Employee EmployeeID. Display Tax deductions and Benefits deductions and Absences.*/

```

SELECT
    COM.Company_ID,
    EMP.Fname,
    EMP.Lname,
    PAY.tax_deduction_total,
    PAY.benefits_deduction_total,
    PAY.deductions_Total
FROM payroll.employee AS EMP
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
    LEFT JOIN(
        SELECT
            PAY.EmployeeID,
            PAY.tax_deduction_total,
            PAY.benefits_deduction_total,
            SUM(PAY.tax_deduction_total + PAY.benefits_deduction_total) AS deductions_Total
        FROM payroll.paystub AS PAY

```



```

        GROUP BY PAY.EmployeeID
    )AS PAY
    ON EMP.EmployeeID = PAY.EmployeeID
GROUP BY
    EMP.Fname,
    EMP.Lname
ORDER BY
    PAY.tax_deduction_total;

```

/*Functional Requirement 7 - Find all salaries that are greater than 50000. Order by company name and department name*/

```

SELECT
    COM.Cname,
    DEPT.Dname,
    EMP.Fname,
    EMP.Lname,
    SAL.BaseSalary
FROM payroll.employee AS EMP
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
    LEFT JOIN payroll.department AS DEPT
    ON EMP.DID = DEPT.Department_ID
    LEFT JOIN payroll.salary AS SAL
    ON EMP.EmployeeID = SAL.EmpID
WHERE SAL.BaseSalary > 50000
ORDER BY
    COM.Cname,
    DEPT.Dname;

```

/*Functional Requirement 8 - Find all the employees that had a leave fromDate and toDate in 2020. Order by Company name*/

```

SELECT
    COM.Cname,
    EMP.Fname,
    EMP.Lname,
    LEA.fromDate,
    LEA.toDate
FROM payroll.employee AS EMP
    LEFT JOIN payroll.leaveP AS LEA

```

```

        ON EMP.EmployeeID = LEA.Em_ID
LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
WHERE YEAR(LEA.fromDate) = 2020 AND YEAR(LEA.toDate) = 2020
ORDER BY
    COM.Cname

```

/*Functional Requirement 9 - Find how much an employee's payout goes to taxes with Tax StateTax, FederalTax and Employee EmployeeID. Order by Company name*/

```

SELECT
    COM.Cname,
    EMP.Fname,
    EMP.Lname,
    TAX.payments_Total,
    TAX.tax_deduction_total
FROM payroll.employee AS EMP
    LEFT JOIN (
        SELECT
            PAY.EmpID,
            PAY.payments_Total,
            (PAY.payments_Total * SUM(TAX.StateTax + TAX.FederalTax)) AS
tax_deduction_total
        FROM payroll.payments AS PAY
            LEFT JOIN payroll.tax as TAX
                ON PAY.EmpID = TAX.E_ID
        GROUP BY
            PAY.payments_Total,
            PAY.EmpID
    ) AS TAX
    ON EMP.EmployeeID = TAX.EmpID
LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
GROUP BY
    EMP.Fname,
    EMP.Lname
ORDER BY
    COM.Cname;

```

/* Functional Requirement 10 - Find which employees have greater than 3 absences and tardies. Order by company name and department name.*/

```

SELECT
    COM.Cname,
    DEPT.Dname,
    EMP.Fname,
    EMP.Lname,
    ATT.Absences,
    ATT.Tardies
FROM payroll.employee AS EMP
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
    LEFT JOIN payroll.department AS DEPT
    ON EMP.DID = DEPT.Department_ID
    LEFT JOIN payroll.attendance AS ATT
    ON EMP.EmployeeID = ATT.EmID
WHERE ATT.Absences > 3 AND ATT.Tardies > 3
ORDER BY
    COM.Cname,
    DEPT.Dname;

```

/*Functional Requirement 11 - Find out how much an employee's payout goes to benefits with BenefitsID, Benefits Retirement, Benefits Insurance and EmployeeID. Order by Company name.*/

```

SELECT
    COM.Cname,
    EMP.Fname,
    EMP.Lname,
    PAY.payments_Total,
    BEN.benefits_deduction_total
FROM payroll.employee AS EMP
    LEFT JOIN payroll.company AS COM
    ON EMP.Company_ID = COM.Company_ID
    LEFT JOIN payroll.payments AS PAY
    ON EMP.EmployeeID = PAY.EmplID
    LEFT JOIN (
        SELECT
            BEN.EmplID,
            SUM(BEN.Retirement + BEN.Insurance) AS benefits_deduction_total
        FROM payroll.benefits AS BEN
    )

```

```
        GROUP BY BEN.EmployID
    ) AS BEN
    ON EMP.EmployeeID = BEN.EmployID
GROUP BY
    EMP.Fname,
    EMP.Lname
ORDER BY
    COM.Cname;
```