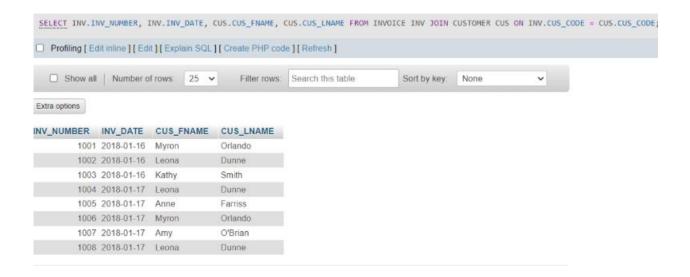# Data & Information Management
6.1P: SELECT Queries with Join and SQL Functions

Task 01

Write a SQL statement to list invoices with their INV_NUMBER, INV_DATE along with the
CUS_FNAME and CUS_LNAME of the customers they belong to.

```
SELECT INV.INV_NUMBER, INV.INV_DATE, CUS.CUS_FNAME,
CUS.CUS_LNAME
FROM INVOICE INV
JOIN CUSTOMER CUS ON INV.CUS_CODE=CUS.CUS_CODE;
```

SELECT INV.INV_NUMBER, INV.INV_DATE, CUS.CUS_FNAME, CUS.CUS_LNAME FROM INVOICE INV JOIN CUSTOMER CUS ON INV.CUS_CODE = CUS.CUS_CODE;

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ∨   Filter rows: Search this table   Sort by key: None ∨

Extra options

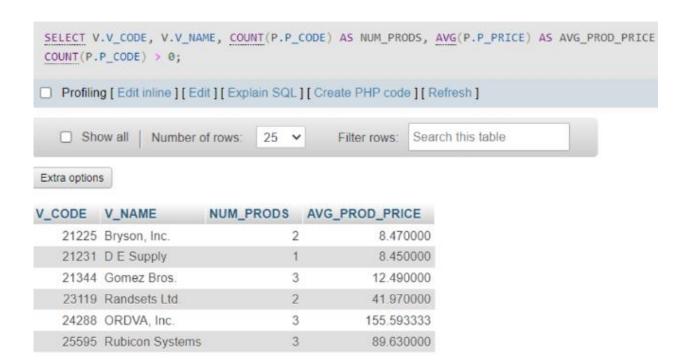| INV_NUMBER	INV_DATE	CUS_FNAME	CUS_LNAME
1001	2018-01-16	Myron	Orlando
1002	2018-01-16	Leona	Dunne
1003	2018-01-16	Kathy	Smith
1004	2018-01-17	Leona	Dunne
1005	2018-01-17	Anne	Farriss
1006	2018-01-17	Myron	Orlando
1007	2018-01-17	Amy	O'Brian
1008	2018-01-17	Leona	Dunne

Task 02

Write a SQL statement to list V_CODE and V_NAME along with the number of products they supply (column name as 'NUM_PRODS') and the average price of a product they supply (column name as 'AVG_PROD_PRICE').

```
SELECT V.V_CODE,V.V_NAME,COUNT(P.P_CODE)AS
NUM_PRODS,AVG(P.P_PRICE)AS AVG_PROD_PRICE
FROM VENDOR V
LEFT JOIN PRODUCT P ON V.V_CODE=P.V_CODE
GROUP BY V.V_CODE, V.V_NAME
HAVING COUNT(P.P_CODE)>0;
```

```
SELECT V.V_CODE, V.V_NAME, COUNT(P.P_CODE) AS NUM_PRODS, AVG(P.P_PRICE) AS AVG_PROD_PRICE
COUNT(P.P_CODE) > 0;
```

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☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table

Extra options

V_CODE	V_NAME	NUM_PRODS	AVG_PROD_PRICE
21225	Bryson, Inc.	2	8.470000
21231	D E Supply	1	8.450000
21344	Gomez Bros.	3	12.490000
23119	Randsets Ltd	2	41.970000
24288	ORDVA, Inc.	3	155.593333
25595	Rubicon Systems	3	89.630000

Task 03

Write a SQL statement to list P_CODE and P_DESCRIPT of all products along with their vendors' V_CODE and V_NAME if available. Note that your results must include all products regardless of whether vendor information is available or not. For products where vendor information is not available, V_CODE and V_NAME columns will be empty or NULL in the result

```
SELECT P.P_CODE,P.P_DESCRIPT,V.V_NAME
FROM PRODUCT P
LEFT JOIN VENDOR V ON P.V_CODE=V.V_CODE;
```
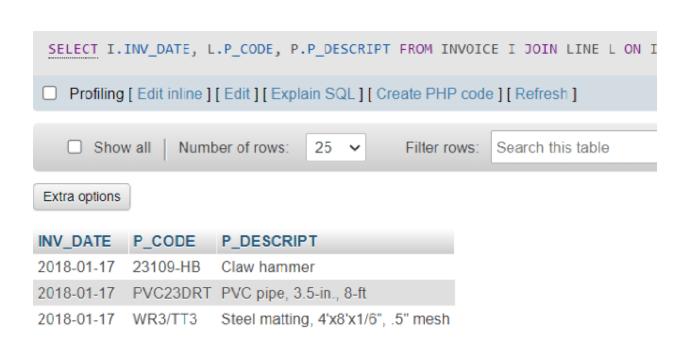
SELECT P.P_CODE, P.P_DESCRIPT, V.V_CODE, V.V_NAME FROM PRODUCT P LEFT JOIN

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☐ Show all | Number of rows: 25 ▾ Filter rows: Search this table

Extra options

P_CODE	P_DESCRIPT	V_CODE	V_NAME
11QER/31	Power painter, 15 psi., 3-nozzle	25595	Rubicon Systems
13-Q2/P2	7.25-in. pwr. saw blade	21344	Gomez Bros.
14-Q1/L3	9.00-in. pwr. saw blade	21344	Gomez Bros.
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	23119	Randsets Ltd.
1558-QW1	Hrd. cloth, 1/2-in., 3x50	23119	Randsets Ltd.
2232/QTY	B D jigsaw, 12-in. blade	24288	ORDVA, Inc.
2232/QWE	B D jigsaw, 8-in. blade	24288	ORDVA, Inc.
2238/QPD	B D cordless drill, 1/2-in.	25595	Rubicon Systems
23109-HB	Claw hammer	21225	Bryson, Inc.
23114-AA	Sledge hammer, 12 lb.	NULL	NULL
54778-2T	Rat-tail file, 1/8-in. fine	21344	Gomez Bros.
89-WRE-Q	Hicut chain saw, 16 in.	24288	ORDVA, Inc.
PVC23DRT	PVC pipe, 3.5-in., 8-ft	NULL	NULL
SM-18277	1.25-in. metal screw, 25	21225	Bryson, Inc.
SW-23116	2.5-in. wd. screw, 50	21231	D E Supply
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	25595	Rubicon Systems

Task 04

Write a SQL statement to retrieve INV_DATE and the list of products with P_CODE and
P_DESCRIPT of the invoice with INV_NUMBER = 1008

```sql
SELECT I.INV_DATE,L.P_CODE,P.P_DESCRIPT
FROM INVOICE I
JOIN LINE L ON I.INV_NUMBER=L.INV_NUMBER
JOIN PRODUCT P ON L.P_CODE=P.P_CODE
WHERE I.INV_NUMBER=1008;
```
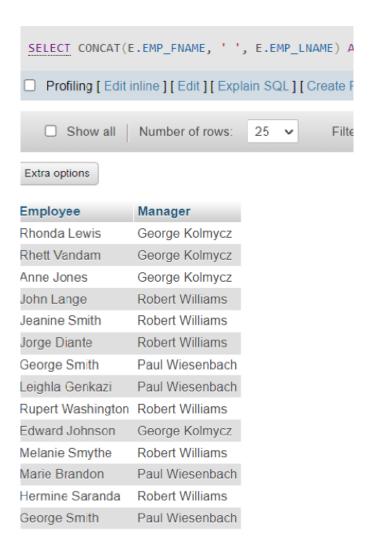
SELECT I.INV_DATE, L.P_CODE, P.P_DESCRIPT FROM INVOICE I JOIN LINE L ON I

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☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table

Extra options

INV_DATE	P_CODE	P_DESCRIPT
2018-01-17	23109-HB	Claw hammer
2018-01-17	PVC23DRT	PVC pipe, 3.5-in., 8-ft
2018-01-17	WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh

Task 05

Here, the last column EMP_MGR refers to the employee's manager, the value is the manager's EMP_NUM. Write a SQL statement to list full names (by concatenating EMP_FNAME and EMP_LNAME separated by a space) of employees AS 'Employee' with their managers' full name (again by concatenating EMP_FNAME and EMP_LNAME separated by a space) AS 'Manager'

```sql
SELECT CONCAT(E.EMP_FNAME,'',E.EMP_LNAME)AS EMPLOYEE,
CONCAT(M.EMP_FNAME,'',M.EMP_LNAME)AS MANAGER
FROM EMP E
INNER JOIN EMP M ON E.EMP_MGR=M.EMP_NUM
;
```

```
SELECT CONCAT(E.EMP_FNAME, ' ', E.EMP_LNAME) A
```

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☐ Show all | Number of rows: 25 ⌄ Filte

Extra options

Employee	Manager
Rhonda Lewis	George Kolmycz
Rhett Vandam	George Kolmycz
Anne Jones	George Kolmycz
John Lange	Robert Williams
Jeanine Smith	Robert Williams
Jorge Diante	Robert Williams
George Smith	Paul Wiesenbach
Leighla Genkazi	Paul Wiesenbach
Rupert Washington	Robert Williams
Edward Johnson	George Kolmycz
Melanie Smythe	Robert Williams
Marie Brandon	Paul Wiesenbach
Hermine Saranda	Robert Williams
George Smith	Paul Wiesenbach

Task 06

Write a SQL statement to list P_CODE and P_DESCRIPT of products that came in store (INDATE) in the month of February of 2018.

```
SELECT P_CODE,P_DESCIPT
FROM PRODUCT
WHERE YEAR(P_INDATE)=2018ANDMONTH(P_INDATE)=2;
```

SELECT P_CODE, P_DESCRIPT FROM PRODUCT WHERE YEAR(P_INDATE) = 2018 AND MONTH

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ⌄ Filter rows: Search this table

Extra options

←T→				P_CODE	P_DESCRIPT
☐	Edit	Copy	Delete	89-WRE-Q	Hicut chain saw, 16 in.
☐	Edit	Copy	Delete	PVC23DRT	PVC pipe, 3.5-in., 8-ft
☐	Edit	Copy	Delete	SW-23116	2.5-in. wd. screw, 50