University Of Portsmouth BSc (Hons) Computer Science First Year

# **Database Systems Development**

M30232 September 2022 - May 2023 20 Credits

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Thomas Boxall S.1. More Joins

# S.1. More Joins

**13:00 13:00 №** Mark **?** RB LT1

The joins we have looked at so far are inner joins. This displays the data where the tables overlap. For example

```
LANGUAGE: SQL

1 SELECT CUSTOMER.CUST_ID, CUST_ORDER.CUST_ORD_ID FROM CUSTOMER
2 JOIN CUST_ORDER ON CUSTOMER.CUST_ID=CUST_ORDER.CUST_ID;
```

Will probably use this the most.

#### Left Join

This will produce everything form the left table (customer) and the overlapping data from the right hand table (cust\_order) where there is a match on the common attribute to both (cust\_id)

```
LANGUAGE: SQL

SELECT CUSTOMER.CUST_ID, CUST_ORDER.CUST_ORD_ID FROM CUSTOMER
LEFT JOIN CUST_ORDER ON CUSTOMER.CUST_ID= CUST_ORDER.CUST_ID;
```

### Right Join

This will return everything from the right table (cust\_order) and common data where it is there.

```
LANGUAGE: SQL

SELECT CUSTOMER.CUST_ID, CUST_ORDER.CUST_ORD_ID FROM CUSTOMER
RIGHT JOIN CUST_ORDER ON CUSTOMER.CUST_ID= CUST_ORDER.CUST_ID;
```

It is important to use the correct join for the situation as when used incorrectly as you won't get the data returned which you are expecting.

#### **Outer Joins**

This gives everything from all the tables mentioned in the query.

```
LANGUAGE: SQL

1 SELECT role_name, staff_lname, staff_fname FROM staff FULL OUTER JOIN
2 ROLE ON ROLE=role_id;
```

Will probably use this the least.

## Things To Remember

- Use the correct type of join for the job
- Match like for like

## S.2. PRACTICAL: FURTHER JOINS

**1** 01-12-22

**②** 14:00

Mark etc

**♀** FTC 3

## **Tutor Led**

We need to insert two more roles into the Role table.

```
LANGUAGE: SQL

1 INSERT INTO ROLE (role_name)
2 VALUES ('Cleaner');
3
4 INSERT INTO ROLE (role_name)
5 VALUES ('Pre Sales');
```

Then run the following.

```
LANGUAGE: SQL

1 SELECT count(*)
2 FROM ROLE;
```

This generates the following output

#### Student Tasks

1. Write a query that correctly displays the staff members first and last names, their email addresses and their roles. Use the method that uses the JOIN keyword. Copy the code and answer below.

```
LANGUAGE: SQL

1 SELECT staff_fname, staff.staff_lname, staff.home_email, role.role_name FROM staff
2 JOIN role on staff.role = role.role_id;
```

```
LANGUAGE: Unknown
  staff_fname | staff_lname |
                                       home email
                                                                role name
2 -----
Montgomery | Housegoe | mhousegoe2Qucoz.ru | Order Picker
  Niel | Welsby | nwelsby0@rambler.ru | Final Pack
Jillene | Revitt | jrevitt8@cornell.edu | Post Sales
Harriette | Fewster | hfewster7@independent.co.uk | Post Sales
                                                       | Final Packer
| Post Sales
4 Niel
6 Harriette | Fewster
        | Clewlowe | aclewlowe5@google.com.au | Post Sales
| Gloster | hgloster3@blogger.com | Customer R
7 Aura
                                                           | Customer Retain
8 Hanan
9 Nikoletta | Shrimpton | nshrimpton1@unblog.fr
                                                          | Customer Retain
0 Tim
             | Illem | tillem9@dedecms.com
                                                           | Misc
  Nell
              | Olsson
                             | nolsson6@jiathis.com
                                                            | Misc
  Janeva
             | Gillicuddy | jgillicuddy4@altervista.org | Misc
3 (10 rows)
```

2. Rewrite the query created in 1 but this time use the WHERE keyword. Copy the code and answer below.

```
LANGUAGE: SQL

1 SELECT staff.staff_fname, staff.staff_lname, staff.home_email, role.role_name FROM staff, role
2 WHERE staff.role = role.role_id;
```

3. List the customer first and last names with their email addresses and the product names of the products they have ordered. But only for the customers who live in Waekolong. Copy the code and the answer below.

```
LANGUAGE: SQL

SELECT customer.cust_fname, customer.cust_lname, customer.email, product.prod_name FROM
customer

JOIN cust_order ON customer.cust_id=cust_order.cust_id

JOIN manifest ON cust_order.cust_ord_id=manifest.cust_ord_id

JOIN product on manifest.prod_id=product.prod_id

WHERE customer.town='Waekolong';
```

```
LANGUAGE: Unknown
     cust_fname | cust_lname |
                                                   email
                                                                                              prod name
3 Marie-françoise | Currier | acurrier0@economist.com | Vision-oriented attitude-oriented

→ core

4 Marie-françoise | Currier
                                      | acurrier0@economist.com | Balanced client-server product
5 Marie-françoise | Currier | acurrierO@economist.com | Exclusive client-server array
6 Marie-françoise | Currier | acurrier0@economist.com | Universal encompassing conglomeration
7 Marie-françoise | Currier | acurrier0@economist.com | Synergistic homogeneous ability
8 Marie-françoise | Currier | acurrier0@economist.com | Universal exuding protocol
9 Marie-françoise | Currier | acurrier0@economist.com | Universal global hub
0 Marie-françoise | Currier | acurrier0@economist.com | Balanced real-time info-mediaries
1 Marie-françoise | Currier | acurrier0@economist.com | Integrated 24/7 interface
2 Marie-françoise | Currier | acurrierO@economist.com | Re-engineered explicit software
Marie-françoise | Currier
Marie-françoise | Currier
                                    | acurrier0@economist.com | Customizable cohesive capacity
| acurrier0@economist.com | Robust mission-critical complexity
5 Marie-françoise | Currier | acurrierO@economist.com | Organic clear-thinking system engine
6 Marie-françoise | Currier | acurrier0@economist.com | Stand-alone composite Graphical User
      \hookrightarrow Interface
7 (14 rows)
```

4. Write a query that returns all categories and the product names and order the output into category order. Copy the code and the answer below.

```
LANGUAGE: SQL

SELECT category.cat_name, product.prod_name FROM category

JOIN product ON product.prod_cat = category.cat_id

ORDER BY category.cat_name;
```

```
LANGUAGE: Unknown
   cat name
                                     prod_name
             | Exclusive multimedia middleware
3 Health
               | Pre-emptive holistic intranet
4 Health
5 Health
               | Ameliorated next generation orchestration
6 Health
               | Monitored asynchronous function
7 Health
               | Right-sized mission-critical pricing structure
  Health
               | Profound human-resource forecast
9 Health
              | Realigned client-driven database
0 Health
              | Seamless optimal leverage
               | User-friendly encompassing array
  Health
2 Health
               | Customizable cohesive capacity
3 Health
              | Fully-configurable full-range interface
  Health
               | Team-oriented stable project
5 Health
               | Multi-tiered explicit paradigm
6 Health
               | Balanced client-server product
  Health
               | Open-architected homogeneous concept
8 Health
               | Networked global open system
9 Kid's Wear | Persistent incremental model
Kid's Wear | Cross-platform fresh-thinking core
Kid's Wear | Advanced neutral portal
              | Customer-focused needs-based protocol
22 Kid's Wear
23 Kid's Wear
              | Organic clear-thinking system engine
  Kid's Wear
               | Profound optimal encryption
Kid's Wear | Business-focused holistic help-desk
6 Kid's Wear | Total intangible artificial intelligence
   Kid's Wear
               | Configurable analyzing solution
Rid's Wear | Monitored non-volatile initiative
9 Kid's Wear | Pre-emptive next generation infrastructure
              | Persevering empowering customer loyalty
| Progressive modular archive
30 Kid's Wear
Kid's Wear
2 Kid's Wear | Digitized tertiary groupware
33 Kid's Wear | Fundamental global archive
34 Kid's Wear | Cross-group reciprocal firmware
Ladies Wear | Decentralized human-resource infrastructure
  Ladies Wear | Adaptive modular approach
   Ladies Wear | Synergistic zero defect info-mediaries
8 Ladies Wear | Public-key interactive encoding
  Ladies Wear | Multi-channelled well-modulated analyzer
   Ladies Wear | Realigned 5th generation artificial intelligence
1 Ladies Wear | Vision-oriented user-facing framework
2 Ladies Wear | Secured holistic hierarchy
   Ladies Wear | Assimilated regional instruction set
Ladies Wear | Integrated 24/7 interface
5 Ladies Wear | Virtual impactful success
   Ladies Wear | Exclusive analyzing open architecture
   Ladies Wear | Innovative web-enabled extranet
8 Ladies Wear | Robust directional projection
   Ladies Wear | Universal global hub
10 Ladies Wear | Ergonomic solution-oriented local area network
Ladies Wear | Horizontal explicit benchmark
  Ladies Wear | Reduced fresh-thinking process improvement
   Ladies Wear | Balanced modular website
4 Ladies Wear | Stand-alone composite Graphical User Interface
  Ladies Wear | Multi-layered multi-tasking initiative
   Ladies Wear | Re-engineered explicit software
7 Men's Wear | Implemented optimizing benchmark
8 Men's Wear | Adaptive static website
   Men's Wear
               | Balanced real-time info-mediaries
Men's Wear | Re-engineered cohesive methodology
Men's Wear | Diverse reciprocal knowledge base
              | Robust foreground leverage
| Advanced didactic Graphic Interface
62 Men's Wear
3 Men's Wear
Men's Wear | Re-engineered 24/7 knowledge base
   Men's Wear | Operative analyzing task-force
66 Outdoor
               | 4th generation Graphical User Interface
7 Outdoor
               | Inverse transitional infrastructure
8 Outdoor
               | Diverse neutral emulation
69 Outdoor
               | Up-sized composite challenge
Outdoor
              | Intuitive directional complexity
1 Outdoor
               | Re-engineered actuating capability
   Outdoor
               | Proactive methodical data-warehouse
               | Switchable tangible product
```

```
| Enhanced discrete function
   Outdoor
   Outdoor
               | Horizontal asynchronous intranet
6 Outdoor
               | Switchable 5th generation parallelism
              | Future-proofed leading edge customer loyalty
77 Outdoor
               | Enhanced homogeneous paradigm
8 Outdoor
9 Outdoor
               | Inverse high-level attitude
0 Outdoor
              | Quality-focused upward-trending throughput
Sport Sport Sport
               | Customizable well-modulated encryption
               | Profound value-added intranet
3 Sport
              | Balanced hybrid portal
84 Sport
              | Persistent demand-driven complexity
  Sport
               | Focused secondary initiative
              | Universal exuding protocol
6 Sport
7 Sport
              | Exclusive background website
  Sport
               | Exclusive client-server array
89 Sport
               Robust mission-critical complexity
90 Sport
              | Quality-focused foreground analyzer
  Sport
               | Realigned homogeneous hub
92 Sport
               | Streamlined asynchronous functionalities
93 Sport
              | Vision-oriented attitude-oriented core
94 Sport
               | Virtual stable Graphic Interface
95 Sport
               | Configurable methodical firmware
96 Sport
              | Open-source impactful archive
              | Synergistic homogeneous ability
97 Sport
  Sport
               | Front-line demand-driven utilisation
99 Sport
              | Universal encompassing conglomeration
00 Sport
               | Distributed uniform Graphic Interface
01 Sport
               | Synergistic scalable capability
12 Sport
               | Business-focused solution-oriented moratorium
03 (100 rows)
```

5. Rewrite the query for Q4 so that the output is ordered by category, then the product id. Copy the code and the answer below.

```
LANGUAGE: SQL

SELECT category.cat_name, product.prod_name FROM category

JOIN product ON product.prod_cat = category.cat_id

ORDER BY category.cat_name, product.prod_id;
```

```
LANGUAGE: Unknown
   cat_name |
                                       prod_name
3 Health
              | Balanced client-server product
4 Health
               | Pre-emptive holistic intranet
5 Health
                | Multi-tiered explicit paradigm
6 Health
                | Monitored asynchronous function
7 Health
               | Right-sized mission-critical pricing structure
                | Open-architected homogeneous concept
8 Health
9 Health
                | Fully-configurable full-range interface
0 Health
               | Customizable cohesive capacity
1 Health
                | Seamless optimal leverage
2 Health
                | Realigned client-driven database
3 Health
               | Profound human-resource forecast
4 Health
                | User-friendly encompassing array
                | Networked global open system
   Health
               | Team-oriented stable project
6 Health
7 Health
               | Exclusive multimedia middleware
   Health
                | Ameliorated next generation orchestration
9 Kid's Wear | Cross-platform fresh-thinking core
Nid's Wear | Profound optimal encryption
21 Kid's Wear | Business-focused holistic help-desk
22 Kid's Wear | Configurable analyzing solution
Kid's Wear | Monitored non-volatile initiative
Kid's Wear | Pre-emptive next generation infrastructure
Kid's Wear | Persevering empowering customer loyalty
Kid's Wear | Progressive modular archive
Kid's Wear | Cross-group reciprocal firmware Kid's Wear | Advanced neutral portal
   Kid's Wear | Customer-focused needs-based protocol
```

```
0 Kid's Wear
              | Fundamental global archive
Kid's Wear
               | Digitized tertiary groupware
               | Total intangible artificial intelligence
82 Kid's Wear
Kid's Wear | Organic clear-thinking system engine
4 Kid's Wear | Persistent incremental model
   Ladies Wear | Multi-layered multi-tasking initiative
6 Ladies Wear | Robust directional projection
Ladies Wear | Re-engineered explicit software
   Ladies Wear | Multi-channelled well-modulated analyzer
9 Ladies Wear | Public-key interactive encoding
Ladies Wear | Realigned 5th generation artificial intelligence
   Ladies Wear | Vision-oriented user-facing framework
2 Ladies Wear | Secured holistic hierarchy
13 Ladies Wear | Assimilated regional instruction set
   Ladies Wear | Virtual impactful success
5 Ladies Wear | Universal global hub
6 Ladies Wear | Adaptive modular approach
   Ladies Wear | Synergistic zero defect info-mediaries
  Ladies Wear | Reduced fresh-thinking process improvement
9 Ladies Wear | Stand-alone composite Graphical User Interface
Ladies Wear | Decentralized human-resource infrastructure
   Ladies Wear | Balanced modular website
2 Ladies Wear | Horizontal explicit benchmark
13 Ladies Wear | Innovative web-enabled extranet
   Ladies Wear | Exclusive analyzing open architecture
Ladies Wear | Integrated 24/7 interface
6 Ladies Wear | Ergonomic solution-oriented local area network
77 Men's Wear | Operative analyzing task-force
88 Men's Wear | Re-engineered cohesive methodology
Men's Wear | Balanced real-time info-mediaries
Men's Wear | Implemented optimizing benchmark
Men's Wear | Adaptive static website
Men's Wear | Diverse reciprocal knowledge base
Men's Wear | Robust foreground leverage
Men's Wear | Re-engineered 24/7 knowledge base
55 Men's Wear | Advanced didactic Graphic Interface
66 Outdoor
               | Inverse transitional infrastructure
7 Outdoor
               | Diverse neutral emulation
              | Up-sized composite challenge
8 Outdoor
69 Outdoor
               | Intuitive directional complexity
0 Outdoor
               | Re-engineered actuating capability
1 Outdoor
              | Proactive methodical data-warehouse
2 Outdoor
               | Switchable tangible product
3 Outdoor
               | Enhanced discrete function
4 Outdoor
               | Horizontal asynchronous intranet
5 Outdoor
               | Switchable 5th generation parallelism
               | 4th generation Graphical User Interface
6 Outdoor
7 Outdoor
               | Future-proofed leading edge customer loyalty
8 Outdoor
              | Enhanced homogeneous paradigm
9 Outdoor
               | Inverse high-level attitude
               | Quality-focused upward-trending throughput
10 Outdoor
               | Exclusive client-server array
81 Sport
82 Sport
               | Exclusive background website
               | Universal encompassing conglomeration
3 Sport
84 Sport
               | Synergistic homogeneous ability
85 Sport
               | Open-source impactful archive
   Sport
               | Configurable methodical firmware
87 Sport
               | Virtual stable Graphic Interface
88 Sport
               | Realigned homogeneous hub
  Sport
               | Quality-focused foreground analyzer
               | Universal exuding protocol
90 Sport
91 Sport
               | Balanced hybrid portal
               | Customizable well-modulated encryption
   Sport
               | Business-focused solution-oriented moratorium
93 Sport
94 Sport
               | Synergistic scalable capability
   Sport
               | Distributed uniform Graphic Interface
96 Sport
               | Profound value-added intranet
97 Sport
               | Persistent demand-driven complexity
  Sport
               | Focused secondary initiative
99 Sport
               | Streamlined asynchronous functionalities
00 Sport
               | Vision-oriented attitude-oriented core
01 Sport
               | Front-line demand-driven utilisation
02 Sport
               | Robust mission-critical complexity
3 (100 rows)
```

6. How can you prove that the product id is being used to do the ordering? (You may have already done this in Q5). Copy the code and the answer below.

```
LANGUAGE: SQL

SELECT category.cat_name, product.prod_name, product.prod_id FROM category

JOIN product ON product.prod_cat = category.cat_id

ORDER BY category.cat_name, product.prod_id;
```

cat_name	prod_name	prod_id
	+	
Health	Balanced client-server product	4
	Pre-emptive holistic intranet	6
Health	Multi-tiered explicit paradigm	10
Health	Monitored asynchronous function	20
	Right-sized mission-critical pricing structure	23
	Open-architected homogeneous concept	37
	Fully-configurable full-range interface	46
Health	Customizable cohesive capacity	54
	Seamless optimal leverage	57
	Realigned client-driven database	59
	Profound human-resource forecast	69
	User-friendly encompassing array	72
Health	Networked global open system	81
	Team-oriented stable project   Exclusive multimedia middleware	88   94
	Ameliorated next generation orchestration	95
	Cross-platform fresh-thinking core	12
	Profound optimal encryption	28
	Business-focused holistic help-desk	32
	Configurable analyzing solution	45
	Monitored non-volatile initiative	47
	Pre-emptive next generation infrastructure	48
	Persevering empowering customer loyalty	52
	Progressive modular archive	55
	Cross-group reciprocal firmware	62
	Advanced neutral portal	70
	Customer-focused needs-based protocol	71
	Fundamental global archive	79
	Digitized tertiary groupware	84
	Total intangible artificial intelligence	89
	Organic clear-thinking system engine	97
Kid's Wear	Persistent incremental model	98
Ladies Wear	Multi-layered multi-tasking initiative	1
Ladies Wear	Robust directional projection	8
Ladies Wear	Re-engineered explicit software	11
Ladies Wear	Multi-channelled well-modulated analyzer	17
Ladies Wear	Public-key interactive encoding	19
Ladies Wear	Realigned 5th generation artificial intelligence	26
	Vision-oriented user-facing framework	29
	Secured holistic hierarchy	30
	Assimilated regional instruction set	31
	Virtual impactful success	36
	Universal global hub	41
	Adaptive modular approach	50
	Synergistic zero defect info-mediaries	51
	Reduced fresh-thinking process improvement	56
	Stand-alone composite Graphical User Interface	67
	Decentralized human-resource infrastructure	73
	Balanced modular website	74
	Horizontal explicit benchmark	75
	Innovative web-enabled extranet	77
	Exclusive analyzing open architecture	78
	Integrated 24/7 interface	92
	Ergonomic solution-oriented local area network	99
	Operative analyzing task-force	2
	Re-engineered cohesive methodology	7
	Balanced real-time info-mediaries	22
	Implemented optimizing benchmark	34
Men's Wear	Adaptive static website	35

```
Men's Wear | Diverse reciprocal knowledge base
  Men's Wear | Robust foreground leverage
Men's Wear | Re-engineered 24/7 knowledge base
                                                                          53
                                                                          76
Men's Wear | Advanced didactic Graphic Interface
  Outdoor
             | Inverse transitional infrastructure
| Diverse neutral emulation
                                                                          9
   Outdoor
                                                                          13
             | Up-sized composite challenge
8 Outdoor
                                                                          14
             | Intuitive directional complexity
69 Outdoor
                                                                          15
              | Re-engineered actuating capability
Outdoor
                                                                          18
              | Proactive methodical data-warehouse
1 Outdoor
                                                                          21
2 Outdoor
              | Switchable tangible product
                                                                          40
   Outdoor
               | Enhanced discrete function
                                                                          42
              | Horizontal asynchronous intranet
4 Outdoor
                                                                          43
5 Outdoor
              | Switchable 5th generation parallelism
                                                                          49
  Outdoor
               | 4th generation Graphical User Interface
              | Future-proofed leading edge customer loyalty
  Outdoor
                                                                          68
8 Outdoor
             | Enhanced homogeneous paradigm
                                                                          86
  Outdoor
              | Inverse high-level attitude
              | Quality-focused upward-trending throughput
0 Outdoor
                                                                          87
1 Sport
              | Exclusive client-server array
              | Exclusive background website
32 Sport
                                                                          5
   Sport
              | Universal encompassing conglomeration
                                                                          16
84 Sport
              | Synergistic homogeneous ability
                                                                          25
  Sport
              | Open-source impactful archive
   Sport
              | Configurable methodical firmware
                                                                          27
              | Virtual stable Graphic Interface
   Sport
                                                                          33
  Sport
              | Realigned homogeneous hub
                                                                          39
   Sport
               | Quality-focused foreground analyzer
90 Sport
              | Universal exuding protocol
                                                                          58
   Sport
              | Balanced hybrid portal
                                                                          60
   Sport
               | Customizable well-modulated encryption
                                                                          61
              | Business-focused solution-oriented moratorium
   Sport
                                                                          64
              | Synergistic scalable capability
  Sport
                                                                          65
              | Distributed uniform Graphic Interface
   Sport
                                                                          66
  Sport
              | Profound value-added intranet
                                                                          80
97 Sport
              | Persistent demand-driven complexity
                                                                          83
              | Focused secondary initiative
   Sport
   Sport
               | Streamlined asynchronous functionalities
                                                                          90
00 Sport
              | Vision-oriented attitude-oriented core
                                                                          91
01 Sport
               | Front-line demand-driven utilisation
                                                                          96
               | Robust mission-critical complexity
                                                                         100
   Sport
03 (100 rows)
```

7. Write a query that will list all staff members first and last names along with their email addresses that are cleaners. Copy the code and the answer below.

```
LANGUAGE: SQL

SELECT staff.staff_fname, staff.staff_lname, staff.work_email FROM staff
JOIN role ON staff.role=role.role_id
WHERE role.role_name='Cleaner';
```

8. How many staff are there who have the role Misc? Copy the code and the answer below.

```
LANGUAGE: SQL

1 SELECT count(*) FROM staff
2 JOIN role ON staff.role = role.role_id
3 WHERE role.role_name='Misc';
```

9. What are the addresses of the staff that are returned by the query for Q8? You should output their first and last names too. Copy the code and the answer below.

```
LANGUAGE: SQL

SELECT staff.staff_fname, staff.staff_lname, concat_ws(' ', addr1, addr2, town, postcode) AS "

address"

FROM staff
JOIN role ON role.role_id = staff.role
WHERE role.role_name='Misc';
```

```
LANGUAGE: Unknown

staff_fname | staff_lname | address

Janeva | Gillicuddy | 6999 Kings Park Sachtjen Portsmouth P005 5SF

Nell | Olsson | 18424 Kenwood Court Farmco Havant P022 6DL

Tim | Illem | 85 Lillian Way Farragut Southsea P093 OCN

(3 rows)
```

10. List the product id numbers with their names that start with the letters Re . Copy the code and the answer below.

```
LANGUAGE: SQL

1 SELECT prod_id, prod_name FROM product
2 WHERE prod_name LIKE 'Re%';
```

```
LANGUAGE: Unknown

prod_id | prod_name

relation | prod_id | prod_name

Re-engineered cohesive methodology

11 | Re-engineered explicit software

18 | Re-engineered actuating capability

26 | Realigned 5th generation artificial intelligence

39 | Realigned homogeneous hub

56 | Reduced fresh-thinking process improvement

59 | Realigned client-driven database

76 | Re-engineered 24/7 knowledge base

1 (8 rows)
```

11. List the product id numbers with their names that have the word value in the name somewhere. Copy the code and the answer below.

```
LANGUAGE: SQL

1 SELECT prod_id, prod_name FROM product
2 WHERE prod_name LIKE '%value%';
```

```
LANGUAGE: Unknown

prod_id | prod_name

rowspan="2" style="text-align: right;" prod_name

rowspan="2" style="text-align: right;" prod_name

rowspan="2" style="text-align: right;" styl
```

```
4 (1 row)
```

12. List the product names along with their id numbers that have Value somewhere in their name. Copy the code and the answer below

```
LANGUAGE: SQL

1 SELECT prod_id, prod_name FROM product
2 WHERE prod_name LIKE '%Value%';
```

13. List the customer first and last names along with their email addresses, the customer order id, the category names and the product names for orders that have been placed for all products that have the word able in the name. (The case matters). Order by the category and the product name. The output should have the category names in alphabetical order then within each category the products should be ordered in alphabetical order. Copy the code and the answer below.

```
LANGUAGE: Unknown
                                                                                                                                                                             | cust ord id | cat name
       cust_fname
                                                      cust lname
                                                                                                                              email
         \rightarrow
                  - 1
prod_name
        \hookrightarrow
                                         Menendez
                                                                                     | amenendez3@dell.com
                                                                                                                                                                            64 | Health
 Bérengère
        \hookrightarrow | Customizable cohesive capacity
                                                                                                                                                                          Marie-françoise | Currier | acurrier0@economist.com
                                                                                                                                                                                                     133 | Health
        \hookrightarrow | Customizable cohesive capacity
                                                                                                                                                                             1
                                                                                                                                                                                                     102 | Health
 Bérengère | Menendez
                                                                                    | amenendez3@dell.com

→ | Fully-configurable full-range interface
  Chadd
                          | Franz-Schoninger | cfranzschoninger3@google.com.hk |
                                                                                                                                                                                                          7 | Health
                     | Team-oriented stable project
                              | Franz-Schoninger | cfranzschoninger3@google.com.hk |
                                                                                                                                                                                                        81 | Health
  Chadd
         \hookrightarrow | Team-oriented stable project
                                                                                                                                                                                                        24 | Kid's
 Bénédicte
                                    | Dozdill
                                                                                       | cdozdill1@amazon.de
        \hookrightarrow Wear | Configurable analyzing solution
                                                                                                                                                                             1
 Bérengère
                                      | Menendez
                                                                             | amenendez3@dell.com
                                                                                                                                                                                                        21 | Kid's
         \hookrightarrow Wear | Configurable analyzing solution
                                     | Menendez | amenendez3@dell.com
                                                                                                                                                                             Τ
                                                                                                                                                                                                     113 | Kid's
 Bérengère
          \hookrightarrow Wear | Configurable analyzing solution
                                      | Boeter
                                                                                                                                                                             1
                                                                                                                                                                                                        91 | Kid's
  Jobey
                                                                                    | jboeter0@mail.ru
        \buildrel \bui
                                                                                                                                                                             1
                                                                                                                                                                                                        39 | Outdoor
  Jobey
                                      | Boeter
                                                                                     | jboeter0@mail.ru
                     | Switchable tangible product
         \hookrightarrow
                                                                                                                                                                             1
  Jobey
                                        Boeter
                                                                                      | jboeter0@mail.ru
                                                                                                                                                                                                        26 | Outdoor
                    | Switchable tangible product
                                                                                                                                                                             1
                                      | Eke
                                                                                     | veke4@elegantthemes.com
                                                                                                                                                                                                     105 | Sport
  Vikky
                      | Configurable methodical firmware
  Vikky
                                                                                                                                                                                                      118 | Sport
                                         | Eke
                                                                                        | veke4@elegantthemes.com
```

```
→ | Customizable well-modulated encryption

Pélagie | Hachard | fhachard4@blinklist.com | 89 | Sport

→ | Virtual stable Graphic Interface

(14 rows)
```