**Part 1: Database Diagram**

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| **customers**  cust\_id (PK)  cust\_name  cust\_address  cust\_city  cust\_state  cust\_zip  cust\_country  cust\_contact  cust\_email | **orders**  order\_num (PK)  order\_date  cust\_id (FK) [customers] | **orderitems**  order\_num (PK & FK) [orders]  order\_item (PK)  prod\_id (FK) [products]  quantity  item\_price | **vendors**  vend\_id (PK)  vend\_name  vend\_address  vend\_city  vend\_state  vend\_zip  vend\_country | **products**  prod\_id (PK)  vend\_id (FK) [vendors]  prod\_name  prod\_price  prod\_desc |

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| **Table Relationships** | |
| customers → orders | one to many |
| orders → orderitems | one to many |
| products → orderitems | one to many |
| vendors → products | one to many |

**Part 2: SQL Statements/Queries**

1. Question/Task: List all our customers by name.
   1. Your SQL Statement: SELECT cust\_name FROM `customers`
2. Question/Task: How many different, unique zip codes are our customers in?
   1. Your SQL Statement: SELECT COUNT(cust\_zip) AS number\_of\_zips FROM `customers`
3. Question/Task: What are the last 5 items on our product list?
   1. Your SQL Statement: SELECT prod\_name FROM `products` WHERE NOT (prod\_id='BNBG01' OR prod\_id='BNBG02' OR prod\_id='BNBG03' OR prod\_id='BR01')
4. Question/Task: Show all the products that have been ordered in all orders, sorted by Product ID.
   1. Your SQL Statement: SELECT DISTINCT products.prod\_id, prod\_name FROM orderitems INNER JOIN `products` ON orderitems.prod\_id=products.prod\_id ORDER BY products.prod\_id ASC
5. Question/Task: Show all the products that have been ordered in all orders, sorted by Order # and then quantity.
   1. Your SQL Statement: SELECT order\_num, prod\_name, quantity FROM `orderitems` INNER JOIN `products` ON orderitems.prod\_id = products.prod\_id ORDER BY order\_num ASC, quantity ASC
6. Question/Task: Show all the products that have been ordered in all orders, from smallest quantity to largest.
   1. Your SQL Statement: SELECT prod\_name, quantity FROM `orderitems` INNER JOIN `products` ON orderitems.prod\_id=products.prod\_id ORDER BY quantity ASC
7. Question/Task: Show all the products from orders where the quantity for a product is greater than 30.
   1. Your SQL Statement: SELECT DISTINCT prod\_name FROM `orderitems` INNER JOIN `products` ON orderitems.prod\_id=products.prod\_id WHERE quantity>30
8. Question/Task: Show all the items from orders where the quantity is greater than 30 and the unit price is greater than $3.
   1. Your SQL Statement: SELECT DISTINCT prod\_name FROM `orderitems` INNER JOIN `products` ON orderitems.prod\_id=products.prod\_id WHERE quantity>30 AND item\_price>3
9. Question/Task: Display all our products whose price is greater than $5.
   1. Your SQL Statement: SELECT prod\_name FROM `products` WHERE prod\_price>5
10. Question/Task: Show all the products we carry that are not from **Bears R Us**.
    1. Your SQL Statement: SELECT prod\_name FROM `products` INNER JOIN `vendors` ON products.vend\_id=vendors.vend\_id WHERE NOT vendors.vend\_name='Bears R Us'
11. Question/Task: Show all the items from orders where the quantity is between 25 and 50 and the price is between $2 and $5.
    1. Your SQL Statement: SELECT prod\_name FROM `orderitems` INNER JOIN `products` ON orderitems.prod\_id=products.prod\_id WHERE (quantity>=25 AND quantity <=50) AND (item\_price>=2 AND item\_price<=5)
12. Question/Task: Show all the products we carry from **Fun and Games** and **Jouets et ours**.
    1. Your SQL Statement: SELECT prod\_name FROM `products` INNER JOIN `vendors` ON vendors.vend\_id=products.vend\_id WHERE vendors.vend\_name='Fun and Games' OR vendors.vend\_name='Jouets et ours'
13. Question/Task: Show all the products we carry from **Bear Emporium** and **Bears R Us** that cost less than $9.
    1. Your SQL Statement: SELECT prod\_name FROM `products` INNER JOIN `vendors` ON vendors.vend\_id=products.vend\_id WHERE (vendors.vend\_name='Bear Emporium' OR vendors.vend\_name='Bears R Us') AND prod\_price<9
14. Question/Task: How many dolls do we carry?
    1. Your SQL Statement: SELECT COUNT(prod\_id) AS number\_of\_dolls FROM `products` WHERE prod\_id='RYL01' OR prod\_id='RYL02' OR prod\_id='RGAN01'
15. Question/Task: Show the total quantity of each of our products from each order and the total cost for each of those products, per order, displaying it in a column named “total\_sales.”
    1. Your SQL Statement: SELECT SUM(quantity \* item\_price) AS total\_sales FROM `orderitems`