Week04 – SQL - QUESTIONS

These questions and queries cover a wide range of scenarios commonly encountered in a MKTIME database, utilising joins, subqueries, and aggregate functions to extract meaningful output from the database.

1. List all products.

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| Code | Expected Answer | Actual Answer |
| SELECT \* FROM view\_items; | How many records you expect to display: 10 |  |

2. Find the total sales amount for each product.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_items.item\_id, view\_items.item\_name, *IFNULL*(*SUM*(view\_orders.quantity), 0), *IFNULL*(*SUM*(view\_orders.total), 0) FROM view\_items  LEFT JOIN view\_orders  ON view\_items.item\_id = view\_orders.item\_id GROUP BY item\_id; | How many records you expect to display: 10 |  |

3. List all users who made purchase on 3rd May 2023.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_users.firstname, view\_users.lastname FROM view\_users  JOIN view\_orders ON view\_users.user\_id = view\_orders.user\_id WHERE view\_orders.order\_date = '2023-05-03 00:00:00'; | How many records you expect to display: 1 |  |

4. Find the top 5 costing items.

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| Code | Expected Answer | Actual Answer |
| SELECT item\_name, item\_price FROM view\_items ORDER BY item\_price DESC LIMIT 5; | How many records you expect to display: 5 |  |

5. List all items and who purchased those items.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_items.item\_name, view\_users.firstname, view\_users.lastname FROM view\_items JOIN view\_orders  ON view\_items.item\_id = view\_orders.item\_id JOIN view\_users  ON view\_orders.user\_id = view\_users.user\_id; | How many records you expect to display: 10 |  |

6. Find the total order value for each user.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_users.firstname, view\_users.lastname, *IFNULL*(*SUM*(view\_orders.total), 0) FROM view\_users  LEFT JOIN view\_orders  ON view\_users.user\_id = view\_orders.user\_id GROUP BY view\_users.user\_id; | How many records you expect to display: 10 |  |

7. List all products with their corresponding orders.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_items.item\_name, view\_orders.order\_date, view\_orders.quantity, view\_orders.total FROM view\_items JOIN view\_orders  ON view\_items.item\_id = view\_orders.item\_id ORDER BY view\_items.item\_name; | How many records you expect to display: 15 |  |

8. Find the customer who spent the most in total.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_users.firstname, view\_users.lastname, *SUM*(view\_orders.total) FROM view\_users  JOIN view\_orders  ON view\_users.user\_id = view\_orders.user\_id GROUP BY view\_orders.user\_id ORDER BY *SUM*(view\_orders.total) DESC LIMIT 1; | How many records you expect to display: 1 |  |

9. Find the top 3 categories with the highest total sales.

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| Code | Expected Answer | Actual Answer |
| *[Note: no categories specified in the database. Changing it to orders instead]*  SELECT view\_items.item\_id, view\_items.item\_name, *SUM*(view\_orders.quantity), *SUM*(view\_orders.total) FROM view\_items  JOIN view\_orders  ON view\_items.item\_id = view\_orders.item\_id GROUP BY item\_id ORDER BY *SUM*(view\_orders.total) DESC LIMIT 3; | How many records you expect to display: 3 |  |

11. List all orders made by a specific customer (e.g., John Doe).

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| Code | Expected Answer | Actual Answer |
| SELECT view\_users.firstname, view\_users.lastname, view\_orders.\* FROM view\_users JOIN view\_orders ON view\_users.user\_id = view\_orders.user\_id WHERE view\_users.user\_id = 1; | How many records you expect to display: 3 |  |

12. Find the number of orders placed by user\_id = 2.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_users.firstname, view\_users.lastname, *COUNT*(view\_orders.user\_id) FROM view\_users JOIN view\_orders ON view\_users.user\_id = view\_orders.user\_id WHERE view\_users.user\_id = 2; | How many records you expect to display: 1 |  |

13. List all items with their respective quantities sold.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_items.item\_name, *IFNULL*(view\_orders.order\_date, "-"), *IFNULL*(*SUM*(view\_orders.quantity), 0), *IFNULL*(view\_orders.total, 0) FROM view\_items  LEFT JOIN view\_orders  ON view\_items.item\_id = view\_orders.item\_id GROUP BY view\_items.item\_id; | How many records you expect to display: 10 |  |

14. Find the total sales made by each user.

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| Code | Expected Answer | Actual Answer |
| SELECT view\_users.firstname, view\_users.lastname, *COUNT*(view\_orders.user\_id) FROM view\_users LEFT JOIN view\_orders  ON view\_users.user\_id = view\_orders.user\_id GROUP BY view\_users.firstname ORDER BY view\_users.user\_id; | How many records you expect to display: 10 |  |