

# AI QUIZ & AI SUMMARY

## AI Quiz

```
{  
  "quiz": {  
    "id": "quiz_1731357000_tut001",  
    "title": "SQL Aggregation & Filtering",  
    "description": "Quiz on GROUP BY, WHERE, and HAVING",  
    "moduleId": "dietetics_101",  
    "contentId": "lecture_03",  
    "timeLimit": 20,  
    "totalQuestions": 5,  
    "createdAt": "2025-11-11T18:50:00.000Z",  
    "generatedBy": "local-llm-v1",  
    "questions": [  
      {  
        "id": "q1",  
        "type": "multiple-choice",  
        "question": "Which clause filters rows BEFORE grouping?",  
        "options": ["HAVING", "WHERE", "GROUP BY", "ORDER BY"],  
        "correctAnswer": "WHERE",  
        "explanation": "WHERE filters individual rows before aggregation. HAVING filters after.",  
        "points": 1,  
        "hints": ["Think: row vs group"]  
      },  
      {  
        "id": "q2",  
        "type": "true-false",  
        "question": "HAVING can be used without GROUP BY.",  
        "correctAnswer": "False",  
        "explanation": "HAVING requires aggregation, so GROUP BY is mandatory.",  
        "points": 1  
      },  
      {  
        "id": "q3",  
        "type": "multiple-choice",  
        "question": "What is the correct execution order in a SQL query?",  
        "options": [  
          "FROM → WHERE → GROUP BY → HAVING → SELECT → ORDER BY",  
          "FROM → SELECT → WHERE → GROUP BY → HAVING → ORDER BY",  
          "SELECT → FROM → WHERE → GROUP BY → HAVING → ORDER BY",  
          "FROM → WHERE → SELECT → GROUP BY → HAVING → ORDER BY"  
        ],  
        "correctAnswer": "FROM → WHERE → GROUP BY → HAVING → SELECT → ORDER BY",  
        "explanation": "SELECT is applied after grouping and filtering.",  
        "points": 1  
      }  
    ]  
  }  
}
```

## AI Summary

```
{  
  "summary": {  
    "id": "sum_1731357000_tut001",  
    "title": "SQL Aggregation & Filtering - Core Concepts",  
    "description": "Summary of lecture 3 content",  
    "moduleId": "dietetics_101",  
    "contentId": "lecture_03",  
    "createdAt": "2025-11-11T18:50:00.000Z",  
    "generatedBy": "local-llm-v1",  
    "sections": [  
      { ... }  
    ]  
  }  
}
```

## For Quiz

Use this EXACT structure:

```
{  
  "quiz": {  
    "id": "...",  
    "title": "...",  
    "moduleId": "...",  
    "contentId": "...",  
    "questions": [  
      {  
        "type": "multiple-choice|true-false",  
        "question": "...",  
        "options": [...],  
        "correctAnswer": "...",  
        "explanation": "...",  
        "points": "number"  
      }  
    ]  
  }  
}
```