WORKSHEET

F7.3 SQL: SELECT

Files and databases · GCSE · OCR J277 2.2.3, AQA 8525 3.7.2 · about 15 min

BugBotLab

Name _____ Class _____ Date _____

What this lesson is about

SELECT, FROM, WHERE and ORDER BY on the class's robot runs.

- SELECT and FROM
- WHERE
- ORDER BY
- Using the answers in Python

Questions

5 marks in all

1. Which SQL keyword names the table to search? [1 mark]

- ☐ **A** FROM
- ☐ **B** SELECT
- ☐ **C** WHERE
- ☐ **D** ORDER BY

2. Put the parts of a query in order. [1 mark]

Number the lines 1 to 4 to put them in the right order.

___ `ORDER BY cm DESC`
___ `WHERE task = 'wall'`
___ `SELECT run_id, cm`
___ `FROM runs`

3. What does `SELECT * FROM robots` return? [1 mark]

- ☐ **A** Every field of every record in robots
- ☐ **B** Only the first record
- ☐ **C** The number of robots
- ☐ **D** Nothing: * is not allowed

4. Runs have cm values 42, 80, 38, 45.5, 76.5 and 81. Which match `WHERE cm > 76.5`? [1 mark]

Tick every answer that is true.

- ☐ **A** 80
- ☐ **B** 81
- ☐ **C** 76.5
- ☐ **D** 45.5

5. Complete the query so it lists the longest runs first: `SELECT run_id, cm FROM runs ORDER BY cm ____` [1 mark]

The task: the longest square runs

Write one SQL query that finds the `run_id` and `cm` of every **square** run longer than **77** cm, longest first, and print each result as `run 6: 81.0 cm`. Then drive forward the distance of the **shortest** of those runs, divided by 4.

```
# the two lines every program starts with: the commands, then the robot
from bugbot import *
connect()

import logbook
db = logbook.open_db()
```

Plan your program here, then type it in and press Run.

Do it on the robot

www.bugbotlab.com/learn/f7-3-sql-select/

The simulator checks it and tells you when it passes. Nothing to install, no account.

Challenges

1. Find every run that took less than 5 seconds, fastest first.
2. Find the robots whose colour is not green.
3. Write the Python loop that does the same job as `SELECT run_id FROM runs WHERE cm > 50`. How many lines is it?