**National 5**

**SQL**

**Cheat Sheet**

**To search for and display data:**

SELECT *field1*, *field2* …

FROM *table1*, *table2*

WHERE *condition1*

AND *condition2*…

ORDER BY *field1* ASC, *field1* DESC;

**To add a new complete record:**

INSERT INTO *table*

VALUES ("*data*", "*data*", "*data*", "*data*");

**To add a new, partially complete record:**

INSERT INTO *table* (*field1*, *field2*, …)

VALUES ("*data for field 1*", "*data for field 2*", …);

**To update the data in a record(s):**

UPDATE *table*

SET *field1* = "*data1*", *field2* = "*data2*"

WHERE *condition*;

**To delete records from a table:**

DELETE FROM *table*

WHERE *condition1*

AND *condition2*;



**Video table (sample data)**



**Vlogger table (sample data)**



**The above database is available from:**

[**https://www.sqa.org.uk/pastpapers/papers/papers/2019/N5\_Computing-Science\_Assignment-Electronic-Files\_2019.zip**](https://www.sqa.org.uk/pastpapers/papers/papers/2019/N5_Computing-Science_Assignment-Electronic-Files_2019.zip)

**SQL questions using the 2019 Assignment vlogger database**.

Write SQL statements that could be used to implement the requests below.

1. Display the video name and video duration of the video called “Microbits”.
2. Remove the vlogger, Jenna Matthews, ID 13 from the database.
3. Display the full names of all the Makeup experts.
4. Display all the videos (name and date created) with a rating of 1. The data should be displayed from the oldest video to the newest.
5. Add the following new vlogger to the database: vloggerID 16, Jenna Atkins, jening, Programming
6. Display the forename and surname of the vlogger(s) who have created a Gaming video less than 60 minutes long. The vloggers should be displayed in alphabetical order of surname.
7. vlogger 12 created a new video today called Jumpers. The video is 43 minutes long, includes “description of jumper types” and has been given a rating of 4.
Add the new video to the database.
8. The database will no longer store the details of vloggers who specialise in Programming videos. Remove all these vloggers from the database.
9. The expertise Gaming has been widened to cover other types of game. Change the expertise from “Gaming” to “Games”.
10. Display all video IDs and names of every video created on the 25th April 2019 by baking experts.
11. Add a new vlogger, Giles Cannon to the database. You’ll need to make up an ID and username for Giles. You don’t know what his expertise is yet.
12. A decision has been made to change the rating system so that the maximum rating is 4 instead of 5. Any videos currently rated 5 should be changed to 4.
13. Display the vlogger’s name, expertise, video name and duration of any video between 30 and 180 minutes long. The videos should be displayed from the longest video to the shortest.
14. Display the complete details of any vlogger who has had at least a rating of 4.
15. Noah Sim has requested that all his videos are removed from the database. Implement Noah’s request.
16. Display the names of all the videos created by a programming expert, with a rating of 4 that are less than 60 minutes long. The video names should be displayed in alphabetical order.

**Marking Instructions**.

1. Display the video name and video duration of the video called “Microbits”.
SELECT videoName, duration
FROM Video
WHERE videoName = “Microbits”;
2. Remove the vlogger, Jenna Matthews, ID 13 from the database.
DELETE FROM Vlogger
WHERE vloggerID = 13;
(Teaching point – only the primary key is required to uniquely identify the record)
3. Display the full names of all the Makeup experts.
SELECT forename, surname
FROM Vlogger
WHERE expertise = “Makeup”:
4. Display all the videos (name and date created) with a rating of 1. The data should be displayed from the oldest video to the newest.
SELECT videoName, dateCreated
FROM Video
WHERE rating = 1
ORDER BY dateCreated ASC;
5. Add the following new vlogger to the database: vloggerID 16, Jenna Atkins, jening, Programming
INSERT INTO Vlogger
VALUES (16, “Jenna”, “Atkins”, “jening”, “Programming”);
6. Display the forename and surname of the vlogger(s) who have created a Gaming video less than 60 minutes long. The vloggers should be displayed in alphabetical order of surname.
SELECT forename, surname
FROM Vlogger, Video
WHERE expertise = “Gaming”
AND duration < 60
AND Video.vloggerID = Vlogger.vloggerID
ORDER BY surname;
7. vlogger 12 created a new video today called Jumpers. The video is 43 minutes long, includes “description of jumper types” and has been given a rating of 4.
Add the new video to the database.
INSERT INTO Video
VALUES (11, 12, “Jumpers”, 43, “21/02/2020”, “Description of jumper types”, 4);
(Teaching point – Date formats will change depending on your environment)
8. The database will no longer store the details of vloggers who specialise in Programming videos. Remove all these vloggers from the database.

DELETE FROM Vlogger
WHERE expertise = “Programming”;

1. The expertise Gaming has been widened to cover other types of game. Change the expertise from “Gaming” to “Games”.
UPDATE Vlogger
SET expertise = “Games”
WHERE expertise = “Gaming”;
2. Display all video IDs and names of every video created on the 25th April 2019 by baking experts.
SELECT videoID, videoName
FROM Video, Vlogger
WHERE dateCreated = “24/04/2020”
AND expertise = “Baking”

AND Video.vloggerID = Vlogger.vloggerID;
(Teaching Point – Hammer home the requirement for the join wherever two tables are used because it’s a common error)

1. Add a new vlogger, Giles Cannon to the database. You’ll need to make up an ID and username for Giles. You don’t know what his expertise is yet.
INSERT INTO Vlogger (vloggerID, forename, surname,username)
VALUES (16, “Giles”, “Cannon”, “giling”);
(Teaching point – highlight the difference in INSERT when you are leaving some fields empty)
2. A decision has been made to change the rating system so that the maximum rating is 4 instead of 5. Any videos currently rated 5 should be changed to 4.
UPDATE Video
SET rating = 4
WHERE rating = 4;
3. Display the vlogger’s name, expertise, video name and duration of any video between 30 and 180 minutes long. The videos should be displayed from the longest video to the shortest.
SELECT forename, surname, expertise, videoName, duration
FROM Video, Vlogger
WHERE duration >= 30
AND duration <= 180
AND Video.vloggerID = Vlogger.vloggerID
ORDER BY duration DESC;
4. Display the complete details of any vlogger who has had at least a rating of 4.
SELECT \*
FROM Video, Vlogger
WHERE rating = 4
AND Video.vloggerID = Vlogger.vloggerID;
(Teaching point – Correct answer could also be to list all fields in Vlogger)
5. Noah Sim has requested that all his videos are removed from the database. Implement Noah’s request.
DELETE FROM Vlogger
WHERE forename = “Noah”
AND surname = “Sim”;
(Teaching Point – Remind students that to implement this you shouldn’t have to look up the table for information. It would therefore be incorrect to use vloggerID = 3 and the condition. You have to work with what you know.)

1. Display the names of all the videos created by a programming expert, with a rating of 4 that are less than 60 minutes long. The video names should be displayed in alphabetical order.
SELECT videoName
FROM Video, Vlogger
WHERE expertise = “Programmming”
AND rating = 4
AND duration < 60
AND Video.vloggerID = Vlogger.vloggerID
ORDER BY videoName ASC;