

Since 2020, Scotland Golfers has maintained a database of every golf club member in Scotland. The database stores details of each player along with the club they are a member of and their handicap.

The database also stores the results of club competitions that take place all over Scotland including a unique code for each individual result and the type of match (Match Play, Stroke Play or Stableford).

Each table contains thousands of rows. A selection of rows from the two database tables are shown below.

Table: Golfer					
scotGolfNo	forename	surname	age	club	handicap
9274632	Craig	White	Junior	Dundee Golf Club	12
8364766	Donna	Winter	Adult	St Andrews Golf Club	4
9364521	Kai	Smart	Adult	Perth Golf Club	
1284361	Kyra	Assam	Junior	Arbroath Golf Club	5
7634520	Jamie	Grey	Senior	Dundee Golf Club	22
...	...	...	...	...	...

  

Table: Result								
resultID	competition	level	type	year	score	scotGolfNo	matchType	
ABDL001	Aberdeen Match	Junior	Ladies	2021	89	1283461	match play	
DGCG001	Dunfermline Open	Adult	Gents	2021	80	9364521	stroke play	
DGCG023	Dunfermline Open	Adult	Gents	2022	73	9364521	stroke play	
EDNG001	Edinburgh Masters	Senior	Mixed	2022	69	7634520	stableford	
EDNG002	Edinburgh Masters	Senior	Mixed	2022	92	6625456	stableford	
EDNG003	Edinburgh Masters	Senior	Mixed	2022	85	0973626	stableford	
...	...				...	...	...	

Award 1 mark for each correct line in each answer.

**Question 1**

A new junior golfer, Eve Muirfoot, has joined Dunfermline Golf Club. After playing a few rounds of golf her handicap is confirmed as 19. She is assigned the golf number 3028756.

(2)

```
INSERT INTO Golfer
VALUES (3028756,"Eve","Muirfoot","Junior", "Dunfermline Golf Club",19);
```

**Question 2**

Eve took place in the junior ladies ‘Oban Match Play’ competition last week, scoring 93. Her result id was OBNL065.

(2)

```
INSERT INTO Result
VALUES ("OBNL065","Oban Match Play","Junior","Ladies",2022,93,3028756,"match play");
```

**Question 3**

Aki Seng has joined Hawick Golf Club as an adult member. Aki has yet to be given a handicap. Aki has been told his Scottish Golf Number is 4049875.

(2)

```
INSERT INTO Golfer (scotGolfNo, forename, surname, age, club)
VALUES (4049875,"Aki","Seng","Adult","Hawick Golf Club");
```

**Question 4**

The database is set up with referential integrity. Explain what would happen if Eve's Oban competition result from (question 2) was entered into the Result table before her details were added to the Golfer table (question 1)? (1)

1 mark for – The database wouldn't allow the competition result to be entered without Eve's details being in the Golfer table or an error would be shown.

**Question 5**

Having now played enough golf, Aki Seng (scotGolfNo 4049875), has been given a handicap of 26. Scotland Golfers can now add his handicap to the database. (3)

```
UPDATE Golfer
SET handicap = 26
WHERE scotGolfNo = 4049875;
```

**Question 6**

The results of the 2022, Glasgow Seniors, Mixed competition have accidentally been entered as a Gents event. (4)

```
UPDATE Result
SET type = "Mixed"
WHERE competition = "Glasgow Seniors"
AND year = 2022;
```

**Question 7**

Gillian Trass (scotGolfNo 6723900) has given up playing golf and wishes to be removed from the database. (2)

```
DELETE FROM Golfer
WHERE scotGolfNo = 6723900;
```

**Question 8**

Harry Smart is found to have cheated in the only Dundee Masters competition held in 2022. Harry's result (resultID DDMG048) should be removed from the database. (2)

```
DELETE FROM Result
WHERE resultID = "DDMG048";
```

**Question 9**

Oliver Campbell from Gullane Golf Club has had a great year. His handicap went down to 9, plus he got married and changed his surname to Campbell-Young. (5)

```
UPDATE Golfer
SET surname = "Campbell-Young", handicap = 9
WHERE forename = "Oliver"
AND surname = "Campbell"
AND club = "Gullane Golf Club";
```

**Question 10**

Although unlikely, explain why changing Oliver's data (question 9) may cause an error in the database's data. (1)

There may be another Oliver Campbell at Gullane Golf Club.

or

The data being searched for doesn't uniquely identify the row in the table.

or

The WHERE should include the primary key to ensure it is unique.