

SQLZoo

Unofficial answers to sqlzoo exercises found here: https://sqlzoo.net/wiki/NSS_Tutorial

nss (National Student Survey 2012)

Field	Type
ukprn	varchar(8)
institution	varchar(100)
subject	varchar(60)
level	varchar(50)
question	varchar(10)
A_STRONGLY_DISAGREE	int(11)
A_DISAGREE	int(11)
A_NEUTRAL	int(11)
A_AGREE	int(11)
A_STRONGLY_AGREE	int(11)
A_NA	int(11)
CI_MIN	int(11)
score	int(11)
CI_MAX	int(11)
response	int(11)
sample	int(11)
aggregate	char(1)

Numeric Examples - NSS Tutorial

1. Show the the percentage who STRONGLY AGREE

```
SELECT A_STRONGLY_AGREE FROM nss
WHERE question='Q01'
      AND institution='Edinburgh Napier University'
      AND subject='(8) Computer Science';
```

2. Show the institution and subject where the score is at least 100 for question 15.

```
SELECT institution, subject FROM nss
WHERE question='Q15' AND score >= 100;
```

3. Show the institution and score where the score for '(8) Computer Science' is less than 50 for question 'Q15'

```
SELECT institution, score FROM nss
WHERE question='Q15' AND subject='(8) Computer Science' AND score < 50;
```

4. Show the subject and total number of students who responded to question 22 for each of the subjects '(8) Computer Science' and '(H) Creative Arts and Design'.

```
SELECT subject, SUM(response) FROM nss
WHERE question = 'Q22'
GROUP BY subject HAVING subject IN('(8) Computer Science', '(H) Creative Arts
and Design');
```

5. Show the subject and total number of students who A_STRONGLY_AGREE to question 22 for each of the subjects '(8) Computer Science' and '(H) Creative Arts and Design'.

```
SELECT subject, SUM((response*A_STRONGLY_AGREE) / 100) FROM nss
WHERE question='Q22'
GROUP BY subject HAVING subject IN('(8) Computer Science', '(H) Creative Arts
and Design');
```

6. Show the percentage of students who A_STRONGLY_AGREE to question 22 for the subject '(8) Computer Science' show the same figure for the subject '(H) Creative Arts and Design'. Use the **ROUND** function to show the percentage without decimal places.

```
SELECT subject, ROUND(SUM(A_STRONGLY_AGREE * response) / SUM(response)) AS
percent_strong_agree FROM nss
WHERE question='Q22'
GROUP BY subject HAVING subject IN('(8) Computer Science', '(H) Creative Arts
and Design');
```

7. Show the average scores for question 'Q22' for each institution that include 'Manchester' in the name.

```
SELECT institution, ROUND(SUM(score * response) / SUM(response))
FROM nss
WHERE question='Q22' AND (institution LIKE '%Manchester%')
GROUP BY institution;
```

8. Show the institution, the total sample size and the number of computing students for institutions in Manchester for 'Q01'.

```
SELECT institution, SUM(sample) AS sample_n, SUM(CASE WHEN subject = '(8)
Computer Science' THEN sample ELSE 0 END) AS computing_n FROM nss
WHERE question='Q01' AND (institution LIKE '%Manchester%')
GROUP BY institution;
```