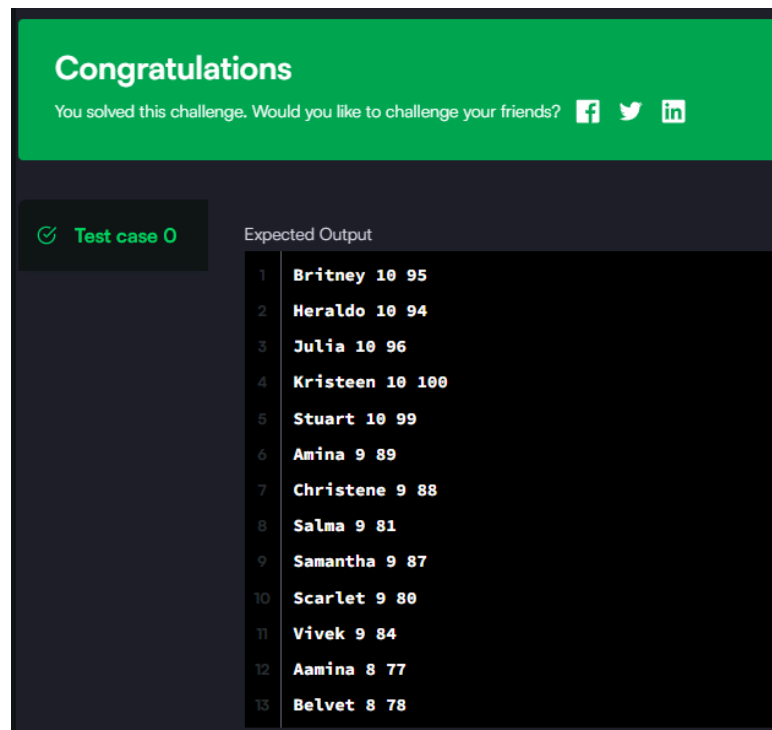


### Question 1:

- Screenshot:



- Query (MySQL)

```
with student_grade as (select name, marks,
    case
        when marks >= 90 then 10
        when marks >=80 then 9
        when marks >=70 then 8
        when marks >=60 then 7
        when marks >=50 then 6
        when marks >=40 then 5
        when marks >=30 then 4
        when marks >=20 then 3
        when marks >=10 then 2
        else 1
    end grade
from students)

select name, grade, marks
```

```

from (
    select name, grade,marks, 1 as sort_group
    from student_grade
    where grade >=8

    union ALL

    select NULL, grade,marks, 2 as sort_group
    from student_grade
    where grade < 8) AS combined

ORDER BY
    sort_group, grade desc,
    case when sort_group = 1 then name end asc,
    case when sort_group = 2 then marks end asc;

```

## Question 2

- Screenshot

The screenshot shows a 'Congratulations' message at the top of a dark-themed interface. Below the message, there are sections for 'Test case 0', 'Compiler Message' (showing 'Success'), 'Input (stdin)' (showing 'INPUT'), and 'Expected Output' (showing '259.6859'). Each section has a 'Download' link. A 'Next Challenge' button is visible in the top right corner.

- Query (MySQL)

```

with point AS
    (select min(lat_n) as a,
        min(long_w) as b,
        max(lat_n) as c,

```

```

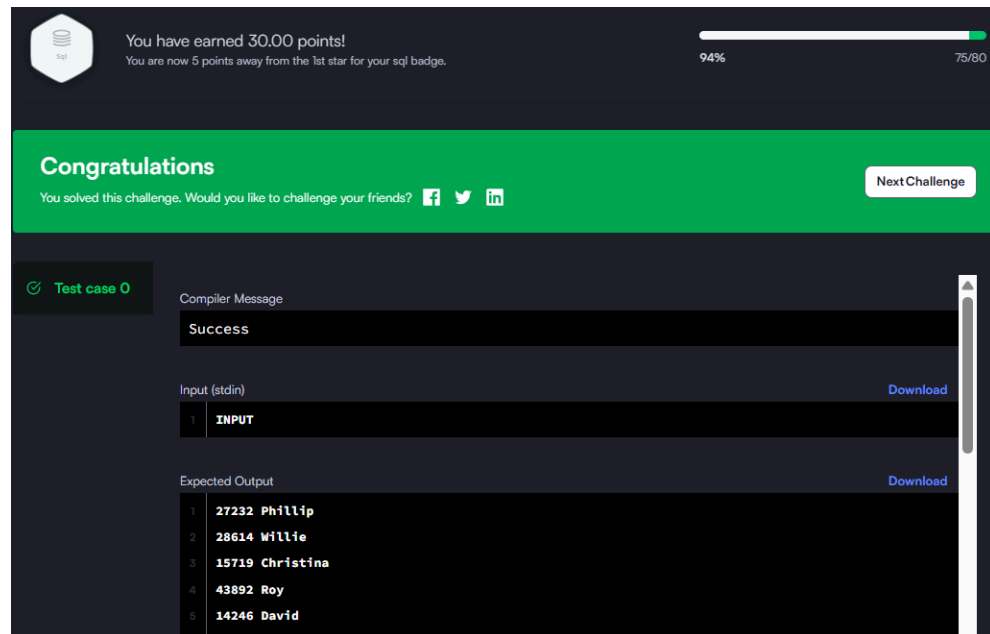
        max(long_w) as d
    from station)

select round(abs(a-c) + abs(b-d), 4)
from point

```

### Question 3

- Screenshot



- Query (MS SQL)

```

WITH hackers_challenges AS (
    select
        h.hacker_id as hacker_id,
        h.name as name,
        count(s.submission_id) as challenge_count
    from hackers h
        right join submissions s on h.hacker_id = s.hacker_id
        left join challenges c on s.challenge_id =
c.challenge_id
        left join difficulty d on c.difficulty_level =
d.difficulty_level
    where d.score = s.score

```

```

        group by h.hacker_id,h.name

        having count(s.submission_id) >1
    )

select hacker_id, name
from hackers_challenges
order by challenge_count desc, hacker_id asc;

```

#### Question 4

- Screenshot

The screenshot shows a coding challenge interface. At the top, a dark header bar contains a SQL icon, a message "You have earned 30.00 points! You are now 70 points away from the 2nd star for your sql badge.", a progress bar at 26%, and a score of 105/175. Below this is a green banner with the text "Congratulations" and "You solved this challenge. Would you like to challenge your friends?" with social media icons. A "Next Challenge" button is on the right. The main content area has a dark background. On the left, a sidebar shows "Test case 0" with a green checkmark. The main area displays a "Compiler Message" box with "Success". Below this is the "Input (stdin)" section with a "Download" button and a table with one row: "INPUT". The "Expected Output" section also has a "Download" button and a table with five rows of output: "1038 496 4789 10", "1130 494 9439 10", "1315 492 4126 10", "9 491 7345 10", and "858 483 4352 10".

- Query

```

with min_coin_wands as (select
    w.id as id,
    wp.age as age,
    w.coins_needed as coins_needed,
    min(w.coins_needed) over (partition by w.power, wp.age )

```

```

as min_coin,
    w.power as powers
from wands w left join wands_property wp on wp.code = w.code
where wp.is_evil = 0)

select id, age, coins_needed, powers
from min_coin_wands
where min_coin = coins_needed
order by powers desc, age desc;

```

#### Question 5:

- Screenshot

Compiler Message

Success

Input (stdin)

1	INPUT
---	-------

Expected Output

1	76971 Ashley 760
2	84200 Susan 710
3	76615 Ryan 700
4	82382 Sara 640
5	79034 Marilyn 580
6	78552 Harry 570

- 
- Query (MS SQL)
- 

```

with min_coin_wands as (select

```

```
w.id as id,  
wp.age as age,  
w.coins_needed as coins_needed,  
min(w.coins_needed) over (partition by w.power, wp.age )  
as min_coin,  
w.power as powers  
from wands w left join wands_property wp on wp.code = w.code  
where wp.is_evil = 0)  
  
select id, age, coins_needed, powers  
from min_coin_wands  
where min_coin = coins_needed  
order by powers desc, age desc;
```

-