

Technical Task 2

1) Write a query to find the root node.

```
SELECT
    id, title
FROM
    category
WHERE
    parent_id IS NULL;
```

2) Write a query to find leaf node.

```
SELECT
    c1.id, c1.title
FROM
    category c1
    LEFT JOIN
    category c2 ON c2.parent_id = c1.id
WHERE
    c2.id IS NULL;
```

3) Write a query to find non-leaf node.

```
SELECT
    DISTINCT( c1.id), c1.title
FROM
    category c1
    INNER JOIN
    category c2 ON c2.parent_id = c1.id
WHERE
    c2.id IS NOT NULL
```

4) Write a query to find the path of each node.

WITH RECURSIVE category_path (id, title, path) AS

(

SELECT id, title, title as path

FROM category

WHERE parent_id IS NULL

UNION ALL

SELECT c.id, c.title, CONCAT(cp.path, ' > ', c.title)

FROM category_path AS cp JOIN category AS c

ON cp.id = c.parent_id

)

SELECT * FROM category_path

ORDER BY path;

5) Write a function to calculate node level.

Cannot complete this using function

6) Write a procedure to get the immediate children.

CREATE DEFINER='root'@'localhost' PROCEDURE `immediate_children`(IN `uid` INT) NOT DETERMINISTIC NO SQL SQL SECURITY DEFINER SELECT

id, title

FROM

category

WHERE

parent_id = uid