PHP面試考題

應試人：

面試日期：

主考官：

分數：

考題

請將答案另外寫在空白紙上

PHP

1. Write a function that takes a string as input and returns the string reversed.

   Example: Given s = "hello", return "olleh".

2. Given a string, find the first non-repeating character in it and return it's index. If it doesn't exist, return -1.

Examples:

```
s = "leetcode"
return 0.


s = "loveleetcode",
return 2.
```

Note: You may assume the string contain only lowercase letters.

Solution:

```php
class Solution {
    /**
    * @param String $str Input string
    *
    * @return int The index of first non-repeating character
    */
    class Solution {
        public function firstUniqChar($str) {


        }
    }
}
```

3. You are given an n x n 2D matrix representing an image.

Rotate the image by 90 degrees (clockwise).

Note: You have to rotate the image in-place, which means you have to modify the input 2D matrix directly. DO NOT allocate another 2D matrix and do the rotation.

Example 1:

```
Given input matrix =
[
  [1,2,3],
  [4,5,6],
  [7,8,9]
],

rotate the input matrix in-place such that it becomes:
[
  [7,4,1],
  [8,5,2],
  [9,6,3]
]
```

Example 2:

```
Given input matrix =
[
  [ 5, 1, 9,11],
  [ 2, 4, 8,10],
  [13, 3, 6, 7],
  [15,14,12,16]
],

rotate the input matrix in-place such that it becomes:
[
  [15,13, 2, 5],
  [14, 3, 4, 1],
  [12, 6, 8, 9],
  [16, 7,10,11]
]
```

Solution:

```php
class Solution {
    /**
     * @param array $matrix 2D matrix
     *
     * @return array Rotated 2D matrix by 90 degrees(clockwise)
     */
    public function rotate(array $matrix) {

    }
}
```

DATABASE

1. Table: `Person`

   ```
   +-------------+---------+
   | Column Name | Type    |
   +-------------+---------+
   | PersonId    | int     |
   | FirstName   | varchar |
   | LastName    | varchar |
   +-------------+---------+
   PersonId is the primary key column for this table.
   ```

   Table: `Address`

   ```
   +-------------+---------+
   | Column Name | Type    |
   +-------------+---------+
   | AddressId   | int     |
   | PersonId    | int     |
   | City        | varchar |
   | State       | varchar |
   +-------------+---------+
   AddressId is the primary key column for this table.
   ```

   Write a SQL query for a report that provides the following information for each person in the Person table, regardless if there is an address for each of those people:

   ```
   FirstName, LastName, City, State
   ```

2. Write a SQL query to delete all duplicate email entries in a table named `Person`, keeping only unique emails based on its smallest Id.

```
+----+-----------------+
| Id | Email           |
+----+-----------------+
| 1  | john@example.com |
| 2  | bob@example.com  |
| 3  | john@example.com |
+----+-----------------+
Id is the primary key column for this table.
```

For example, after running your query, the above Person table should have the following rows:

```
+----+-----------------+
| Id | Email           |
+----+-----------------+
| 1  | john@example.com |
| 2  | bob@example.com  |
+----+-----------------+
```