

1.Explain what Laravel's query builder is and how it provides a simple and elegant way to interact with databases.

database query builder in Laravel provides an easy interface to create and run database queries. It can be used to perform most database operations, from basic DB Connection, CRUD, Aggregates, etc. and it works on all supported database systems.

The notable factor about query builder is that, since it uses the PHP Data Objects (PDO), It inherently provides protection for applications against SQL injection attacks. There is no need to clean or sanitize strings passed to the query builder as query bindings.

Example: `$users = DB::table('users')->get();`

`DB::table` is responsible to begin a fluent query against a database table. The table from which the value has to be selected is mentioned inside the brackets within quotes and finally the `get()` method gets the values. Query builder allows the developer to search and filter database objects, select objects and columns, create relationships between objects, view formatted query results, and save queries with little or no SQL knowledge.

2.Write the code to retrieve the "excerpt" and "description" columns from the "posts" table using Laravel's query builder. Store the result in the \$posts variable. Print the \$posts variable.

```
$posts = DB::table('posts')->select('excerpt', 'description')->get();
```

```
foreach ($posts as $post) {  
    echo "Excerpt: " . $post->excerpt . "\n";  
    echo "Description: " . $post->description . "\n";  
}
```

3. Describe the purpose of the distinct() method in Laravel's query builder. How is it used in conjunction with the select() method?

In Laravel, the distinct() method is used to fetch distinct records from the database, it is also part of Laravel query builder, which means it can be chained to other query builder methods as well. The typical usage of this method is to find how many users made comments on a post.

For example:

```
$uniqueTitles = DB::table('posts')->select('title')->distinct()->get();  
foreach ($uniqueTitles as $post) {  
    echo $post->title . "\n";  
}
```