

Assignment2

Part 1

Requirements: Create a mobile recipe app using Android Studio.

Update Note: the latest version of Android Studio has changed since the textbook was initially published. Nevertheless, most of the textbook content is still valid. The video below was created to assist with the updated Android requirements and functionalities.

Helper_Video: http://www.qcitr.com/vids/LIS4381_A2.mp4

Part 2

README.md file should include the following items:

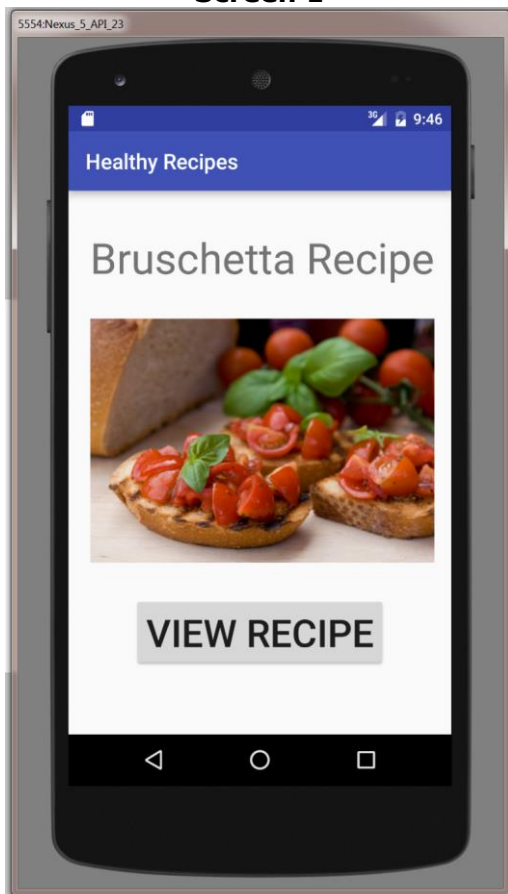
1. **Course title, your name, assignment requirements, as per A1;**
2. Screenshot of running application's **first** user interface;
3. Screenshot of running application's **second** user interface;

Deliverables:

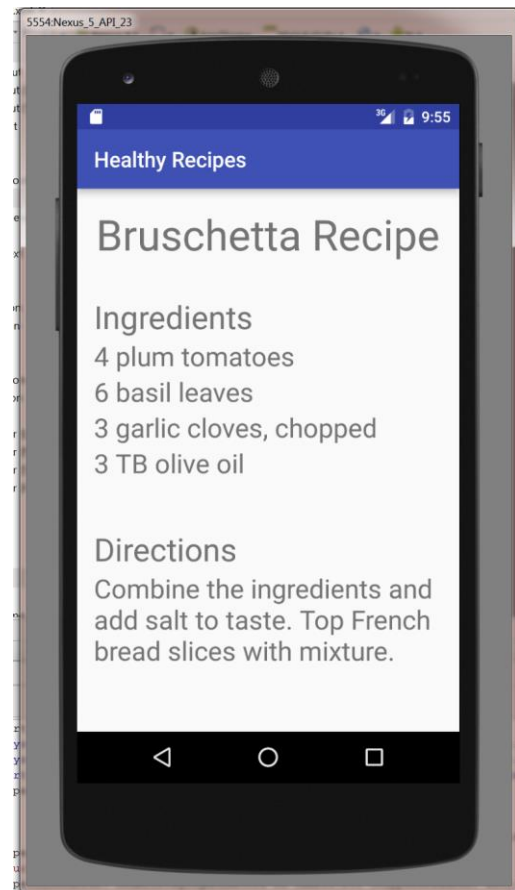
1. Provide **Bitbucket** read-only access to **lis4381** repo link.
2. **Also, *be sure* the assignment README.md includes screenshots.**

Note: Only an example, ***must*** change the background and text colors in **both** activities, or use background image (10 pts total).

Screen 1



Screen 2



Part 3
Questions (PHP/MySQL: Chs. 3, 4)

1. You use the ____ statement to retrieve records from a table.
RETRIEVE GET SELECT CHOOSE
2. The ____ keyword specifies the name of the table that needs to be modified when updating records.
SELECT MODIFY UPDATE CHANGE
3. To perform a reverse sort on query results from a SELECT statement, add the ____ keyword after the name of the field by which you want to perform the sort.
REVERSE DESC A-Z Z-A
4. To store text in an address field, you specify a data type of ____ because the amount of storage space allocated will vary depending upon the number of characters in the field.
VARTEXT CHAR CONTENT VARCHAR
5. You can arrange query results from a SELECT statement using the keyword(s) ____.
SORT SORT BY ORDER ORDER BY
6. You can specify which records to return from a database by using the ____ clause.
CRITERIA MATCH LIKE WHERE
7. A join that returns records from related tables only if their related fields match is called
a. an outer join b. an inner join c. a cross join d. a data join

```
SELECT vendorName, invoiceNumber, invoiceDate, invoiceTotal
FROM vendors Inner Join invoices
    On vendors.vendorID = invoices.vendorID
WHERE invoiceTotal >= 500
ORDER BY vendorName DESC
```

8. If vendorName contains string data and invoiceTotal contains decimal values, how will the result set be ordered?
a. alphabetically starting with A b. alphabetically starting with Z c. numerically starting with 0 d. numerically starting with 500

```
SELECT vendorName, invoiceNumber, invoiceDate, invoiceTotal
FROM vendors Inner Join invoices
    On vendors.vendorID = invoices.vendorID
WHERE invoiceTotal >= 500
ORDER BY vendorName DESC
```

9. How many columns will the above result set have?
a. 4 b. 5 c. 6 d. 7

```
SELECT vendorName, invoiceNumber, invoiceDate, invoiceTotal
FROM vendors Inner Join invoices
    On vendors.vendorID = invoices.vendorID
WHERE invoiceTotal >= 500
ORDER BY vendorName DESC
```

10. What table(s) does the data in the result set above come from?
a. vendors b. invoices c. vendors and invoices d. vendorName and invoiceNumber
11. When you code an INSERT statement, you don't have to include the data for a column that
a. is a foreign key b. is a primary key c. has a default value d. does not allow null values
12. When you code a DELETE or an UPDATE statement, you usually need to include
a. a SORT BY clause b. a WHERE clause c. an inner join d. an outer join
13. If a row in one table is related to just one row in another table, the tables are said to have a
a. one-to-many relationship
b. one-to-one relationship
c. many-to-many relationship
d. unary relationship
14. The column definition for a MySQL table can be used to determine all but one of the following. Which one is it?
a. what type of data the column can contain
b. whether the column can contain a null value
c. whether the column has a default value
d. what range of values the column can contain
15. The result set retrieved by the following SELECT statement contains rows that have

```
SELECT balance, number
FROM accounts
WHERE balance < 0
```

- a. all of the columns from the accounts table
b. two of the rows from the account table
c. all of the columns from the accounts table where balance is less than 0
d. two of the columns from the accounts table where balance is less than 0
16. What does a relational database use in the child tables to relate to the primary keys in the parent tables?
a. indexes b. foreign keys c. non-primary keys d. primary keys
17. What does a relational database use to uniquely identify each row in a table?
a. indexes b. foreign keys c. non-primary keys d. primary keys
18. Which of the following can a SELECT statement not do to the data in a table?
a. Get selected rows b. List selected columns c. Sort the rows d. Delete the rows

The starting code for the **index.php** file which is the first page of an application

```
<?php
    require 'database.php';

    $category_id = $_GET['category_id'];
    if (!isset($category_id)) {
        $category_id = 1;
    }

    // Routine 1
    $query = "SELECT * FROM categories
              WHERE categoryID = $category_id";
    $category = $db->query($query);
    $category = $category->fetch();
    $category_name = $category['categoryName'];

    // Routine 2
    $query = "SELECT * FROM products
              WHERE categoryID = $category_id
              ORDER BY productID";
    $products = $db->query($query);
?>
```

19. The first statement in this example gets and runs a file named database.php. What must this code do for the rest of the statements in this example to work?

- Create a PDOStatement object named \$db that connects to the right database
- Create a PDOStatement object named \$db-> that connects to the right database
- Create a PDO object named \$db that connects to the right database
- Create a PDO object named \$db-> that connects to the right database

The starting code for the **index.php** file which is the first page of an application

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    if (!isset($category_id)) {
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    }

    // Routine 1
    $query = "SELECT * FROM categories
              WHERE categoryID = $category_id";
    $category = $db->query($query);
    $category = $category->fetch();
    $category_name = $category['categoryName'];

    // Routine 2
    $query = "SELECT * FROM products
              WHERE categoryID = $category_id
              ORDER BY productID";
    $products = $db->query($query);
?>
```

20. What does routine 1 above store in the variable named `$category_name`?
- a. The category name for the first row in the categories table of the database
 - b. The category name for the row in categories table that corresponds to the value in `$category_id`
 - c. The category name for the row in categories table that has a category ID of 1
 - d. An array of the category names in the categories table

The starting code for the **index.php** file which is the first page of an application

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require 'database.php';

$category_id = $_GET['category_id'];
if (!isset($category_id)) {
    $category_id = 1;
}

// Routine 1
$query = "SELECT * FROM categories
        WHERE categoryID = $category_id";
$category = $db->query($query);
$category = $category->fetch();
$category_name = $category['categoryName'];

// Routine 2
$query = "SELECT * FROM products
        WHERE categoryID = $category_id
        ORDER BY productID";
$products = $db->query($query);
?>
```

21. What does routine 2 store in the variable named `$products`?
- a. A PDOStatement object for all rows in the products table
 - b. A PDOStatement object for the columns in the first row in the products table
 - c. A PDOStatement object for the rows in the products table that have a category ID equal to the value in `$category_id`
 - d. A PDOStatement object for the rows in the products table that have a category ID equal to 1

22. In the catch block of a try/catch statement for handling PDO exceptions, you can get a message that describes the exception by using the `getMessage` method of the
- a. PDO object
 - b. PDOStatement object
 - c. PDOException object
 - d. Result set array

23. Which of the following is the correct way to code a PHP statement that puts the first row of PDOStatement object named `$products` in an array named `$product`?
- a. `$product = $db->query($products);`
 - b. `$product = $db->fetch($products);`
 - c. `$product = $products->query();`
 - d. `$product = $products->fetch();`

24. Which of the following is the correct way to code a PHP statement that returns the result set for a SELECT statement that's stored in \$statement if the PDO object is \$db?

- a. `$results = $db->query($statement);`
- b. `$results = $db->exec($statement);`
- c. `$results = query->$db($statement);`
- d. `$results = exec->$db($statement);`

25. Which of the following is the correct way to code a PHP statement that executes an INSERT, UPDATE, or DELETE statement that's stored in \$statement if the PDO object is \$db?

- a. `$modify_count = $db->query($statement);`
- b. `$modify_count = $db->exec($statement);`
- c. `$modify_count = query->$db($statement);`
- d. `$modify_count = exec->$db($statement);`

26. When you create a PDO object, you have to pass all but one of these arguments to it: Which one is it?

- a. Data source name
- b. Server name
- c. User name
- d. Password