

Task 3:

I have gone through the legacy code and found below problems. I have provided solution as well for those problems and modified the code accordingly. Please find the problems and corrected code below,

➤ **Problem 1:**

- Syntax error in ternary condition.

➤ **Corrected Code:**

```
$masterEmail = (isset($masterEmail) && $masterEmail) ? $masterEmail :  
((array_key_exists('masterEmail', $_REQUEST) && $_REQUEST["masterEmail"]))  
? $_REQUEST['masterEmail'] : 'unknown');
```

➤ **Problem 2:**

- Undefined array key "email" so have to check array of key is exist or not.

➤ **Corrected Code:**

```
if (isset($_REQUEST['email'])) {  
    $masterEmail = $_REQUEST['email'];  
}
```

➤ **Problem 3:**

- Before DB connection should have to handle error with exception handling.

➤ **Corrected Code:**

```
try{  
    $con = mysqli_connect('localhost', 'root',  
    'sldjfpoweifns','my_database');  
    if (mysqli_connect_errno()) {  
        echo "Failed to connect to MySQL: " . mysqli_connect_error();  
        exit();  
    }else{  
        $result = mysqli_query($con, "SELECT * FROM user WHERE email=" .  
        $masterEmail . "");  
        $row = mysqli_fetch_row($result);  
    }  
} catch{echo 'Something went wrong with DB connection.';}
```

To get bonus point ☺, I have modified entire legacy code and written in object-oriented way. Please find it below,

```
<?php
define('DB_HOST','localhost');
define('DB_USER','root');
define('DB_PASSWORD','sldjfpoweifns');
define('DB_DATABASE','my_database');

class DatabaseConnection
{
    /* DB connection in constructor */
    public function __construct(){
        $conn = mysqli_connect(DB_HOST,DB_USER,DB_PASSWORD,DB_DATABASE);

        if($conn->connect_error)
        {
            die("<h1>Database Connection Failed</h1>");
        }
        //echo "Database Connected Successfully";
        return $this->conn = $conn;
    }
}

if (isset($_REQUEST['email'])) {
    $masterEmail = 'abc@gmail.com';
}

$masterEmail = (isset($masterEmail) && $masterEmail) ? $masterEmail :
((array_key_exists('masterEmail', $_REQUEST) && $_REQUEST["masterEmail"]) ?
$_REQUEST['masterEmail'] : 'unknown');

/**
 * Create object for database connection
 */
$db = new DatabaseConnection;
if ($result = mysqli_query($db->conn, "SELECT * FROM tbl_user Where email
".$masterEmail."")) {
    $row = mysqli_fetch_row($result);
    print_r($row);
    return $row;
}
?>
```

