

# **Informatics Institute of Technology**

## **Department of Computing**

**Module: 6COSC005W – Advanced Server-Side Web  
Programming**

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# 1. Models

## 1.1 User.php

```

<?php
defined('BASEPATH') OR exit('No direct script access allowed');
/**
 * User Class
 *
 * This class represents database activities regarding the user login operation.
 *
 * @author Raveen Savinda Rathnayake
 */
class User extends CI_Model {

    /**
     * User Model constructor.
     */
    public function __construct() {
        // CI_Model constructor call
        parent::__construct();
        // load database object
        $this->load->database();
    }

    /**
     * Add user details to the database.
     * @param $username String Username of the user
     * @param $password String Password of the user
     * @param $name String name of the user
     * @param $listName String name of the wish list
     * @param $listDescription String description of the wish list
     * @return bool Returns true if successful, false otherwise.
     */
    public function register($username, $password, $name, $listName,
        $listDescription){
        $data = array('username' => $username, 'password' => $password, 'name' =>
        $name, 'listName' => $listName,
            'listDescription' => $listDescription);
        $this->db->insert('user',$data);
        return ($this->db->affected_rows() != 1) ? false : true;
    }

    /**
     * Gets the row containing username and password of user.
     * @param $username String Username of the admin
     * @return bool|ArrayObject Returns the result array if found or false if not
     found.
     */
    public function login($username) {
        $this->db->where('username', $username);
        $result = $this->db->get('user');
        // check the number of rows in the result
        if ($result->num_rows() != 1) {
            return false;
        } else {
            return $result->result();
        }
    }

    /**
     * Gets the user row containing userId of the user.
     * @param $userId integer id of the user
     * @return bool|ArrayObject Returns the result array if found or false if not
     found.
     */

```

```

    */
    public function getUser($userId) {
        $this->db->where('userId', $userId);
        $result = $this->db->get('user');
        // check the number of rows in the result
        if ($result->num_rows() != 1) {
            return false;
        } else {
            return $result->result();
        }
    }
}

/**
 * Checks whether a given item title is available under a given user.
 * @param $username String username of the user
 * @return bool|ArrayObject Returns the result array if found or false if not
found.
 */
public function isUserAvailable($username)
{
    $this->db->select('userId');
    $this->db->where('username', $username);
    $result = $this->db->get('user');
    // check the number of rows in the result
    return $result->num_rows() == 1 ? $result->result() : false;
}
}
?>

```

## 1.2 Item.php

```

<?php

defined('BASEPATH') OR exit('No direct script access allowed');

/**
 * Item Class
 *
 * This class represents database activities regarding an item in the wish list.
 *
 * @author Raveen Savinda Rathnayake
 */
class Item extends CI_Model
{
    /**
     * Item Model constructor.
     */
    public function __construct()
    {
        // CI_Model constructor call
        parent::__construct();
        // load database object
        $this->load->database();
    }

    /**
     * Gets all the items of a user list.
     * @param $userId integer id of the user
     * @return bool|ArrayObject Returns the result array if found or false if not
found.
     */
    public function getAllItems($userId)
    {

```

```

        // get the result rows from the 'item' table
        $this->db->select('*');
        $this->db->where('userId', $userId);
        $result = $this->db->get('item');
        // check the number of rows in the result
        if ($result->num_rows() == 0) {
            return false;
        } else {
            return $result->result();
        }
    }

    /**
     * Checks whether a given item title is available under a given user.
     * @param $title String title of the item
     * @param $userId integer id of the user
     * @return bool Returns true if main category title is available, false if not.
     */
    public function isItemTitleAvailableForUser($title, $userId)
    {
        // get the result row from the 'item' table
        $this->db->select('title');
        $this->db->where(array('title' => $title, 'userId' => $userId));
        $result = $this->db->get('item');
        // check the number of rows in the result
        return $result->num_rows() == 0 ? false : true;
    }

    /**
     * Adds a new item to the wish list.
     * @param $itemConfigArray ArrayObject Details of the item as an associative
    array
     * @return bool Returns true if result is successful or false if not found.
     */
    public function addItem($itemConfigArray)
    {
        $this->db->insert('item', $itemConfigArray);
        return ($this->db->affected_rows() != 1) ? false : true;
    }

    /**
     * Delete an item from a users's wish list.
     * @param $itemId integer id of the item to be deleted
     * @return bool Returns true if result is successful or false if not found.
     */
    public function deleteItem($itemId)
    {
        $this->db->where('itemId', $itemId);
        $this->db->delete('item');
        return ($this->db->affected_rows() != 1) ? false : true;
    }

    /**
     * Delete an item from a users's wish list.
     * @param $itemId integer Id of the item to be updates
     * @param $itemUpdateConfigArray ArrayObject Details of the item to be updated
     * @return bool Returns true if result is successful or false if not found.
     */
    public function updateItem($itemId, $itemUpdateConfigArray)
    {
        $this->db->where('itemId', $itemId);
        $this->db->update('item', $itemUpdateConfigArray);
        return ($this->db->affected_rows() != 1) ? false : true;
    }
}
?>

```

## 2. Controllers

### 2.1 UserController.php

```
<?php
use Restserver\Libraries\REST_Controller;
defined('BASEPATH') OR exit('No direct script access allowed');

require APPPATH . 'libraries/REST_Controller.php';
require APPPATH . 'libraries/Format.php';
/**
 * UserController Class
 *
 * This class controls the operations related to users.
 *
 * @author Raveen Savinda Rathnayake
 */
class UserController extends REST_Controller
{
    public function __construct()
    {
        // Parent constructor call
        parent::__construct();
    }

    public function index_get()
    {
        $this->load->view('HomeView');
    }

    /**
     * REST api method used for user login. Sends the user data if found, otherwise
     * sends isValid as false.
     */
    public function user_get() {
        $username = $this->get ( 'username' );
        $password = $this->get ( 'password' );
        $this->load->model('User');
        $result = $this->User->login($username, $password);
        if ($result) {
            $this->response (array('isValid' => true, 'result' => $result),
                REST_Controller::HTTP_OK);
            $userdata = array('userId' => $result->userId, 'username' => $username,
                'logged_in' => TRUE);
            $this->session->set_userdata ($userdata);
        } else {
            $this->response(array('isValid' => false),
                REST_Controller::HTTP_NO_CONTENT);
        }
    }

    /**
     * This REST api method will called when post is called for resource user.
     */
    public function user_post() {
        // adding new user to the database through user model
        $this->load->model('User');
        $result = $this->User->register($this->post( 'username'), $this->post(
            'password'),
            $this->post( 'name'), $this->post ( 'listName'), $this->post(
                'listDescription'));
        if($result) {
            $this->response(array('isValid' => true),
                REST_Controller::HTTP_CREATED);
        } else {

```

```

        $this->response(array('isValid' => false),
REST_Controller::HTTP_BAD_REQUEST);
    }
}

/**
 * This REST api method will called when a user request a list sharing link.
 */
public function shareLink_post() {
    $username = $this->post('username');
    $this->load->model('User');
    $result = $this->User->isUserAvailable($username);
    if($result) {
        $userId = $result[0]->userId;
        $generatedLink =
"http://localhost/wishList/index.php/showlist/".$userId;
        $this->response(array('isValid' => true, 'link' => $generatedLink),
REST_Controller::HTTP_CREATED);
    } else {
        $this->response(array('isValid' => false),
REST_Controller::HTTP_NO_CONTENT);
    }
}

/**
 * This REST api method will called when post is called for resource logout.
 * This methods destroys the session and send response back to client
 */
function logout_post() {
    $this->session->unset_userdata('userId');
    $this->session->unset_userdata('username');
    $this->session->unset_userdata('logged_in');
    $this->session->sess_destroy();
    $this->response(array('result' => "log out successfully"),
REST_Controller::HTTP_OK);
}
}

?>

```

## 2.2 ItemController.php

```

<?php
use Restserver\Libraries\REST_Controller;
defined('BASEPATH') OR exit('No direct script access allowed');

require APPPATH . 'libraries/REST_Controller.php';
require APPPATH . 'libraries/Format.php';

/**
 * ItemController Class
 *
 * This class represent all the controller work related to items of a list.
 *
 * @author Raveen Savinda Rathnayake
 */
class ItemController extends REST_Controller
{
    public function __construct()
    {
        // Parent constructor call
        parent::__construct();
    }
}

```

```

    }

    public function index_get()
    {
        $this->load->view('HomeView');
    }

    /**
     * REST api method used to get wish list items of a user.
     * Sends isValid as false if not successful.
     */
    public function items_get()
    {
        $userId = $this->get('userId');
        $this->load->model('Item');
        $result = $this->Item->getAllItems($userId);
        if ($result) {
            $this->response($result, REST_Controller::HTTP_OK);
        } else {
            $this->response($result, REST_Controller::HTTP_NO_CONTENT);
        }
    }

    /**
     * REST api method used to remove an item from a users's wish list.
     * Sends isValid as false if not successful.
     * @param $itemId integer id of the item to be deleted
     */
    public function items_delete($itemId)
    {
        $this->load->model('Item');
        $result = $this->Item->deleteItem($itemId);
        if ($result) {
            $this->response(array('isValid' => true), REST_Controller::HTTP_OK);
        } else {
            $this->response(array('isValid' => false),
REST_Controller::HTTP_NO_CONTENT);
        }
    }

    /**
     * REST api method used to update an item from a users's wish list.
     * Sends isValid as false if not successful.
     * @param $itemId integer id of the item needed to be update
     */
    public function items_put($itemId)
    {
        $title = $this->put('title');
        $url = $this->put('url');
        $price = number_format((float)$this->put('price'), 2, '.', '');
        $priority = (int)$this->put('priority');
        $this->load->model('Item');
        $result = $this->Item->updateItem($itemId, array('title' => $title, 'url'
=> $url, 'price' => $price,
        'priority' => $priority));
        if ($result) {
            $this->response(array('isValid' => true), REST_Controller::HTTP_OK);
        } else {
            $this->response(array('isValid' => false),
REST_Controller::HTTP_NO_CONTENT);
        }
    }

    /**
     * REST api method used to add an item to a users's wish list.
     * Sends isValid as false if not successful.
     */
    public function items_post()

```



```

{
    $userId = (int)$this->post('userId');
    $title = $this->post('title');
    $url = $this->post('url');
    $price = number_format((float)$this->post('price'), 2, '.', '');
    $priority = (int)$this->post('priority');
    $this->load->model('Item');
    $result = $this->Item->addItem(array('title' => $title, 'url' => $url,
'price' => $price,
    'priority' => $priority, 'userId' => $userId));
    if ($result) {
        $this->response (array('isValid' => true), REST_Controller::HTTP_OK);
    } else {
        $this->response(array('isValid' => false),
REST_Controller::HTTP_BAD_REQUEST);
    }
}

/**
 * REST api method used to get wish list items of a user.
 * Sends isValid as false if not successful.
 * @param $userId integer id of the user who owns the wish list
 */
public function showlist_get($userId)
{
    $this->load->model('Item');
    $result = $this->Item->getAllItems($userId);
    $this->load->model('User');
    $userDetails = $this->User->getUser($userId);
    if ($result) {
        $data['items'] = $result;
        $data['name'] = $userDetails[0]->name;
        $data['listName'] = $userDetails[0]->listName;
        $data['listDescription'] = $userDetails[0]->listDescription;
        $this->load->view('VisitorListView', $data);
    } else if ($userDetails){
        $data['name'] = $userDetails[0]->name;
        $data['listName'] = $userDetails[0]->listName;
        $data['listDescription'] = $userDetails[0]->listDescription;
        $this->load->view('VisitorListView', $data);
    } else {
        $this->load->view('HomeView');
    }
}

/**
 * Controls validating the title of an item.
 * @return String
 */
public function validateItemTitle()
{
    $title = $_POST['title'];
    $userId = $_POST['userId'];
    $this->load->model('Item');
    $result = $this->Item->isItemTitleAvailableForUser($title, $userId);
    // flag determines the validity of the isbn number
    $flag = false;
    if (!$result) {
        // if results not found that means isbn is not in the db. Hence flag
will be TRUE.
        $flag = TRUE;
    }
    echo json_encode($flag);
}
}
?>

```

### 3. Views

#### 3.1 HomeView.php

```
<?php
defined('BASEPATH') OR exit('No direct script access allowed');
?>
<!doctype html>
<html>
<head>
    <title>Wish List</title>
    <!-- Favicon -->
    <link rel="shortcut icon" type="image/x-icon" href="<?php echo base_url();
?>img/favicon.png">

    <!-- all css start -->
    <!-- latest-bootstrap-version-4 -->
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/css/bootstrap.min.css"
    integrity="sha384-
GJzZqFGwb1QTTN6wy59ffF1BuGJpLSa9DkKMP0DgiMDm4iYMj70gZWKYbI706tWS"
crossorigin="anonymous">
    <!-- style css -->
    <link rel="stylesheet" href="<?php echo base_url(); ?>css/style.css">

    <!-- all-js-start -->
    <!-- latest-jquery -->
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
    <!-- bootstrap 4.2.1 compiled and minified JavaScript -->
    <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/js/bootstrap.min.js"
    integrity="sha384-
B0UglyR+jN6CkvvICOB2joaf5I4l3gm9GU6Hclog6Ls7i6U/mkkaduKaBhlAXv9k"
    crossorigin="anonymous"></script>
    <!-- underscore js -->
    <script src="<?php echo base_url(); ?>js/underscore-min.js"></script>
    <!-- backbone js -->
    <script src="<?php echo base_url(); ?>js/backbone-min.js"></script>
    <!-- all-js-end -->
</head>
<body>
<div id="body-div"></div>
<footer class="page-footer font-small special-color-dark pt-4">
    <!-- Copyright -->
    <div class="footer-copyright text-center py-3">© 2019 Copyright:
    <a href="https://www.raveen.me"> Raveen S Rathnayake</a>. All Right
Reserved.
    </div>
    <!-- Copyright -->
</footer>

<script type="text/template" id="loginTemplate">
    <nav class="navbar navbar-light bg-light justify-content-between">
        <a class="navbar-brand" href="#">Wish List Creator</a>
        <form class="form-inline">
            <input class="form-control mr-sm-2" type="text" id="username"
name="username" placeholder="username"
                required>
            <input class="form-control mr-sm-2" type="password" id="password"
name="password" placeholder="password"
                required>
            <button type="button" class="btn btn-primary" id="login-
btn">Login</button>
            <button type="button" class="btn btn-primary" id="register-
btn">Register</button>
```

```

        </form>
    </nav>
    <!-- user-login-area-start -->
    <div class="container">
        <div class="col-lg-12">
            <div class="text-center">
                <h2>User Login Required</h2>
                <p>Please Login to the system or register</p>
            </div>
        </div>
    </div>
    </div>
    <!-- user-login-area-end -->
</script>
<script type="text/template" id="loggedTemplate">
    <nav class="navbar navbar-light bg-light justify-content-between">
        <a class="navbar-brand" href="#">Wish List Creator</a>
        <form class="form-inline">
            <label style="margin-right: 24px;margin-top: 4px;"><span>Hi
            &nbsp;</span><span id="loginName"></span></label>
            <button type="button" class="btn btn-primary" id="logout-
            btn">Logout</button>
        </form>
    </nav>
    <div class="container">
        <div class="row">
            <div class="col-lg-12">
                <div class="text-center">
                    <h2 id="listName">User Wish List</h2>
                    <p id="listDescription">Details</p>
                </div>
            </div>
        </div>
        <div class="row">
            <div class="col-lg-3 col-md-3 col-sm-5 col-xs-12"></div>
            <div class="col-lg-6 col-md-6 col-sm-4 col-xs-12">
                <div id="wishList"></div>
            </div>
            <div class="col-lg-3 col-md-3 col-sm-5 col-xs-12"></div>
        </div>
    </div>
    <div class="container pt-40">
        <div class="row">
            <div class="col-lg-12">
                <div class="text-center">
                    <h2>Create Wish List Item</h2>
                </div>
            </div>
        </div>
        <div class="row">
            <div class="col-lg-12">
                <form>
                    <div class="form-group">
                        <label for="title">Title*</label>
                        <input type="text" class="form-control" id="add-title"
placeholder="Title" required>
                    </div>
                    <div class="form-group">
                        <label for="url">URL*</label>
                        <input type="text" class="form-control" id="add-url"
placeholder="URL">
                    </div>
                    <div class="form-group">
                        <label for="price">Price (LKR)*</label>
                        <input type="number" step="0.01" min="0" class="form-
control" id="add-price" name="price"
placeholder="Ex: 10.00" required>
                    </div>
                </form>
            </div>
        </div>
    </div>

```

```

        <div class="form-group">
            <label for="priority">Priority<span>*</span></label>
            <select class="form-control" id="add-priority">
                <option value=1>Must Have(1)</option>
                <option value=2>Would be nice to have(2)</option>
                <option value=3>If you can(3)</option>
            </select>
        </div>
        <button type="button" class="btn btn-primary" id="add-item-
btn">Add Item</button>
    </form>
</div>
</div>
</div>
<div class="container pt-40">
    <div class="row">
        <div class="col-lg-12">
            <div class="text-center">
                <h2>Request a wish list share link</h2>
                <button type="button" class="btn btn-primary" id="get-share-
link">Generate</button>
            </div>
        </div>
    </div>
    <div class="row">
        <div class="col-lg-3 col-md-3 col-sm-5 col-xs-12"></div>
        <div class="col-lg-6 col-md-6 col-sm-4 col-xs-12">
            <div class="text-center">
                <span id="shareLink"></span>
            </div>
        </div>
        <div class="col-lg-3 col-md-3 col-sm-5 col-xs-12"></div>
    </div>
</div>
</script>
<script id="itemTemplate" type="text/html">
    <div class="accordion" id="accordionExample">
        <div class="card">
            <div class="card-header" id="headingOne">
                <h5 class="mb-0 text-center">
                    <button class="btn btn-link" type="button" data-
toggle="collapse" data-target="#collapse<%= cardId %>"
                    aria-expanded="true" aria-controls="collapseOne">
                        <%= title %>
                    </button>
                    <button type="button" class="btn btn-danger remove-item float-
right">Delete</button>
                </h5>
            </div>
            <div id="collapse<%= cardId %>" class="collapse" aria-
labelledby="headingOne"
                data-parent="#accordionExample">
                <div class="card-body">
                    <div class="form-group form-inline">
                        <label>Title:&nbsp;</label>
                        <div class="view">
                            <label><%- title %></label>
                        </div>
                    </div>
                    <input class="edit name" value="<%- title %>" type="text">
                    <div class="form-group form-inline">
                        <label>URL:&nbsp;</label>
                        <div class="view">
                            <label><%- url %></label>
                        </div>
                    </div>
                    <input class="edit url" value="<%- url %>" type="text">
                    <div class="form-group form-inline">

```

```

        <label>Price (LKR) :&nbsp;</label>
        <div class="view">
            <label><%- price %></label>
        </div>
    </div>
    <input type="number" step="0.01" min="0" class="edit price"
name="price" value="<%- price %>"
        placeholder="Ex: 10.00" required>
    <div class="form-group form-inline">
        <label>Priority:&nbsp;</label>
        <div class="view">
            <label><%- priority %></label>
        </div>
    </div>
    <select class="edit priority" value="<%- priority %>">
        <option value=1>Must Have(1)</option>
        <option value=2>Would be nice to have(2)</option>
        <option value=3>If you can(3)</option>
    </select>
</div>
</div>
</div>
</script>
<script type="text/template" id="registerTemplate">
    <nav class="navbar navbar-light bg-light justify-content-between">
        <a class="navbar-brand" href="<?php echo site_url(); ?>">Home</a>
        <form class="form-inline">
            <a class="btn btn-primary" href="<?php echo site_url(); ?>"
role="button">Login</a>
        </form>
    </nav>
    <div class="container">
        <div class="row">
            <div class="col-lg-12">
                <div class="text-center">
                    <h2>User Registration</h2>
                    <p>Please enter user details to register the new user</p>
                </div>
            </div>
        </div>
        <div class="row">
            <div class="col-lg-12">
                <form>
                    <div class="form-row">
                        <div class="form-group col-md-6">
                            <label for="username">Username*</label>
                            <input class="form-control" type="text" id="username"
name="username" placeholder="Username"
                                required>
                        </div>
                        <div class="form-group col-md-6">
                            <label for="password">Password*</label>
                            <input class="form-control" type="password"
id="password" name="password"
                                placeholder="Password" required>
                        </div>
                    </div>
                    <div class="form-group">
                        <label for="name">Name*</label>
                        <input type="text" class="form-control" id="name"
placeholder="Name" required>
                    </div>
                    <div class="form-group">
                        <label for="listName">List Name*</label>
                        <input type="text" class="form-control" id="listName"
placeholder="List Name">
                    </div>
                </form>
            </div>
        </div>
    </div>
</script>

```

```

        <div class="form-group">
            <label for="listDescription">List Description*</label>
            <textarea class="form-control" id="listDescription"
placeholder="List Description"></textarea>
        </div>
        <button type="button" class="btn btn-primary" id="register-
btn1">Register</button>
    </form>
</div>
</div>
</script>
<!-- user.js -->
<script type="text/javascript" src="<?php echo base_url();
?>js/modelsAndUsers.js"></script>

</body>
</html>

```

### 3.2 VisitorListView.php

```

<?php
defined('BASEPATH') OR exit('No direct script access allowed');
?>
<!doctype html>
<html>
<head>
    <title>Wish List</title>
    <!-- Favicon -->
    <link rel="shortcut icon" type="image/x-icon" href="<?php echo base_url();
?>img/favicon.png">

    <!-- all css start -->
    <!-- latest-bootstrap-version-4 -->
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/css/bootstrap.min.css"
integrity="sha384-
GJzZqFGwb1QTTN6wy59ffF1BuGJpLSa9DkKmp0DgiMDm4iYMj70gZWKYbI706tWS"
crossorigin="anonymous">

    <!-- all-js-start -->
    <!-- latest-jquery -->
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
    <!-- bootstrap 4.2.1 compiled and minified JavaScript -->
    <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/js/bootstrap.min.js"
integrity="sha384-
B0UglyR+jN6CkvvICOB2joaf5I4l3gm9GU6Hclog6Ls7i6U/mkkaduKaBhlAXv9k"
crossorigin="anonymous"></script>
    <!-- all-js-end -->
</head>
<body>
<nav class="navbar navbar-light bg-light justify-content-between">
    <a class="navbar-brand" href="#">Wish List Creator</a>
    <form class="form-inline">
        <a href="<?php echo site_url(); ?>" class="btn btn-primary"
role="button">Login Or Register</a>
    </form>
</nav>
<div class="container">
    <div class="row">
        <div class="col-lg-12">
            <div class="text-center">
                <h2><?php echo $name; ?>'s <?php echo $listName; ?> Wish List</h2>

```

```

        <p><?php echo $listDescription; ?></p>
    </div>
</div>
<div class="row">
    <div class="col-lg-3 col-md-3 col-sm-5 col-xs-12"></div>
    <div class="col-lg-6 col-md-6 col-sm-4 col-xs-12">
        <?php if(isset($items)) {
            foreach ($items as $item) { ?>
                <div class="accordion" id="accordionExample">
                    <div class="card">
                        <div class="card-header" id="headingOne">
                            <h5 class="mb-0 text-center">
                                <button class="btn btn-link" type="button" data-
toggle="collapse" data-target="#collapse<?php echo $item->itemId; ?>" aria-
expanded="true" aria-controls="collapseOne">
                                    <?php echo $item->title; ?>
                                </button>
                            </h5>
                        </div>
                        <div id="collapse<?php echo $item->itemId; ?>" class="collapse"
aria-labelledby="headingOne"
                            data-parent="#accordionExample">
                                <div class="card-body">
                                    <div class="form-group form-inline">
                                        <label>Title:&nbsp;</label>
                                        <label><?php echo $item->title; ?></label>
                                    </div>
                                    <div class="form-group form-inline">
                                        <label>URL:&nbsp;</label>
                                        <label><?php echo $item->url; ?></label>
                                    </div>
                                    <div class="form-group form-inline">
                                        <label>Price (LKR) :&nbsp;</label>
                                        <label><?php echo $item->price; ?></label>
                                    </div>
                                    <div class="form-group form-inline">
                                        <label>Priority:&nbsp;</label>
                                        <label><?php echo $item->priority; ?></label>
                                    </div>
                                </div>
                            </div>
                        </div>
                    </div>
                </div>
            } } ?>
        </div>
    </div>
    <div class="col-lg-3 col-md-3 col-sm-5 col-xs-12"></div>
</div>
<footer class="page-footer font-small special-color-dark pt-4">
    <!-- Copyright -->
    <div class="footer-copyright text-center py-3">© 2019 Copyright:
        <a href="https://www.raveen.me"> Raveen S Rathnayake</a>. All Right
Reserved.
    </div>
    <!-- Copyright -->
</footer>
</body>
</html>

```

## 4. JavaScript Files

### 4.1 modelsAndUser.js

```
var nextCollapseCardId = 1;
/* backbone model for user*/
var Item = Backbone.Model.extend({
  defaults: {
    title: "",
    url: "",
    price: "",
    priority: "",
    userId: ""
  },
  idAttribute: 'itemId',
  urlRoot: 'http://localhost/wishList/index.php/ItemController/items',
});

/* backbone collection for items*/
var ItemCollection = Backbone.Collection.extend({
  model: Item,
  url: 'http://localhost/wishList/index.php/ItemController/items',
  comparator: 'priority'
});

/* creating an item collection*/
var itemList = new ItemCollection();

var UserModel = Backbone.Model.extend({
  urlRoot: 'http://localhost/wishList/index.php/UserController/user',
  defaults: {
    username: '',
    password: ''
  }
});

/* backbone view for an item*/
var ItemView = Backbone.View.extend({
  template: _.template($('#itemTemplate').html()),
  events: {
    "click .remove-item": "removeItem",
    "dblclick label": "edit",
    "keypress .edit": "updateAfterEnter"
  },
  initialize: function () {
    this.listenTo(this.model, 'change', this.render);
    this.listenTo(this.model, 'destroy', this.remove);
  },
  render: function () {
    this.$el.html(this.template(this.model.toJSON()));
    this.input = this.$(".edit");
    return this;
  },
  edit: function () {
    this.$el.addClass("editing");
    this.input.focus();
  },
  close: function () {
    var title = this.input[0].value;
    var url = this.input[1].value;
    var price = this.input[2].value;
    var priority = this.input[3].value;
    if (title !== "" && url !== "" && price !== "" && priority !== "") {
      this.model.save({
        title: title,
        url: url,
```



```

        price: price,
        priority: priority,
    });
    this.$el.removeClass("editing");
} else {
    alert("Please fill all the fields to edit an item!");
}
},
updateAfterEnter: function(e) {
    if (e.keyCode == 13) this.close();
},
removeItem: function (e) {
    this.model.destroy();
}
});

/* backbone view for user login*/
var UserLoginView = Backbone.View.extend({
    initialize: function () {
        this.listenTo(itemList, "add", this.addOne);
        this.listenTo(itemList, "change", this.updateItem);
        this.listenTo(itemList, "sort", this.addAll);
        this.render();
    },
    render: function () {
        if (!sessionStorage.isloggedIn || sessionStorage.isloggedIn === "false") {
            // using underscore compile the #loginTemplate template
            var template = _.template($("#loginTemplate").html(), {});
            // load compiled HTML template into the backbone "el"
            this.$el.html(template);
        } else {
            // using underscore compile the #loggedTemplate template
            var template = _.template($("#loggedTemplate").html(), {});
            // load compiled HTML template into the backbone "el"
            this.$el.html(template);
            $("#loginName").text(sessionStorage.username);
            $("#listName").text(sessionStorage.listName);
            $("#listDescription").text(sessionStorage.listDescription);
            itemList.fetch({
                data: $.param({
                    userId: sessionStorage.userId,
                }),
                success: function (result) {
                    console.log(result);
                },
                error: function (error) {
                    console.log(error);
                }
            });
            itemList.sort();
        }
    }, // add events for login button and logout button
    events: {
        "click .btn[id=logout-btn]": "doLogout",
        "click .btn[id=login-btn]": "doLogin",
        "click .btn[id=register-btn]": "loadRegister",
        "click .btn[id=add-item-btn]": "createItem",
        "click .btn[id=get-share-link]": "getLink"
    },
    /* Login event */
    doLogin: function (event) {
        if ($("#username").val() !== "" && $("#password").val() !== "") {
            var user = new UserModel();
            var self = this;
            // The fetch will perform GET /user/1
            user.fetch({
                data: $.param({username: $("#username").val(), password:
                $("#password").val()}),

```

```

        success: function (user) {
            if (user.attributes.isValid) {
                login_view.close();
                var template = _.template($("#loggedTemplate").html(), {});
                self.$el.html(template);
                itemList.fetch({
                    data: $.param({
                        userId: user.attributes.result[0].userId,
                    }),
                    success: function (result) {
                        console.log(result);
                    },
                    error: function (error) {
                        console.log(error);
                    }
                });
                itemList.sort();
                // store username and status in session storage
                sessionStorage.isloggedIn = true;
                sessionStorage.username =
user.attributes.result[0].username;
                sessionStorage.userId = user.attributes.result[0].userId;
                sessionStorage.listName =
user.attributes.result[0].listName;
                sessionStorage.listDescription =
user.attributes.result[0].listDescription;
                $("#loginName").text(user.attributes.result[0].username);
                $("#listName").text(sessionStorage.listName);
                $("#listDescription").text(sessionStorage.listDescription);
            } else {
                sessionStorage.isloggedIn = "false";
                alert("Invalid username and password!");
            }
        },
        error: function (error) {
            console.log(error);
        }
    });
} else {
    alert("Please fill the username and password!");
}
},
/* Logout event*/
doLogout: function (event) {
    var self = this;
    $.post("http://localhost/wishList/index.php/userController/logout",
function (data) {
        sessionStorage.isloggedIn = "false";
        sessionStorage.username = "";
        sessionStorage.userId = "";
        sessionStorage.listName = "";
        sessionStorage.listDescription = "";
        var template = _.template($("#loginTemplate").html(), {});
        self.$el.html(template);
    });
},
/* Add an item */
addOne: function (item) {
    item.attributes.cardId = nextCollapseCardId;
    nextCollapseCardId++;
    var view = new ItemView({model: item});
    this.$("#wishList").append(view.render().el);
},
/* Add all items */
addAll: function () {
    $("#wishList").empty();
    itemList.each(this.addOne, this);
},

```

```

/* Update an item */
updateItem: function() {
    itemList.sort();
},
/* Get a link to share the list */
getLink: function() {
    $.ajax({
        url: "http://localhost/wishList/index.php/userController/shareLink",
        type: "POST",
        data: {username: sessionStorage.username},
        success: function (data) {
            if (data.isValid) {
                var link = data.link;
                $("#shareLink").text(link);
            } else {
                alert("Error occurred while generating the list share link!");
            }
        },
        error: function (error) {
            alert("Error occurred while generating the list share link!");
        }
    });
},
/* Create an item */
createItem: function(event) {
    var newTitle = $("#add-title");
    var newUrl = $("#add-url");
    var newPrice = $("#add-price");
    var newPriority = $("#add-priority");
    if (newTitle.val() !== "" && newUrl.val() !== "" && newPrice.val() !== ""
    && newPriority.val() !== "") {
        itemList.create({
            title: newTitle.val(),
            url: newUrl.val(),
            price: newPrice.val(),
            priority: newPriority.val(),
            userId: sessionStorage.userId
        });
        newTitle.val("");
        newUrl.val("");
        newPrice.val("");
        newPriority.val("");
    } else {
        alert("Please fill all the fields required to add an item!");
    }
},
/* Load register view */
loadRegister: function (event) {
    var registerView = new UserRegisterView({el: $("#body-div")});
    // login_view.close();
    registerView.render();
}
});

/* backbone view for user login*/
var UserRegisterView = Backbone.View.extend({
    initialize: function () {
        this.render();
    },
    render: function (template) {
        // using underscore compile the #registerTemplate template
        var template = _.template($("#registerTemplate").html(), {});
        // load compiled HTML template into the backbone "el"
        this.$el.html(template);
    }, // add events for login button and logout button
    events: {
        "click .btn[id=register-btn1]": "doRegister"
    },

```

```

/* Register event */
doRegister: function (event) {
    if ($("#username").val() !== "" && $("#password").val() !== "" &&
    $("#name").val() !== ""
        && $("#listName").val() !== "" && $("#listDescription").val() !== "") {
        var user = new UserModel();
        var self = this;
        var userDetails = {
            username: $("#username").val(),
            password: $("#password").val(),
            name: $("#name").val(),
            listName: $("#listName").val(),
            listDescription: $("#listDescription").val()
        };
        user.save(userDetails, {
            success: function (user) {
                if (user.attributes.isValid) {
                    alert("User Registered Successfully!");
                    var login_view1 = new UserLoginView({el: $("#body-div")});
                    login_view1.render();
                } else {
                    sessionStorage.isloggedIn = false;
                    alert("User registration failed!");
                }
            },
            error: function () {
                alert("User registration failed!");
            }
        })
    } else {
        alert("Please fill the fields!");
    }
}
});

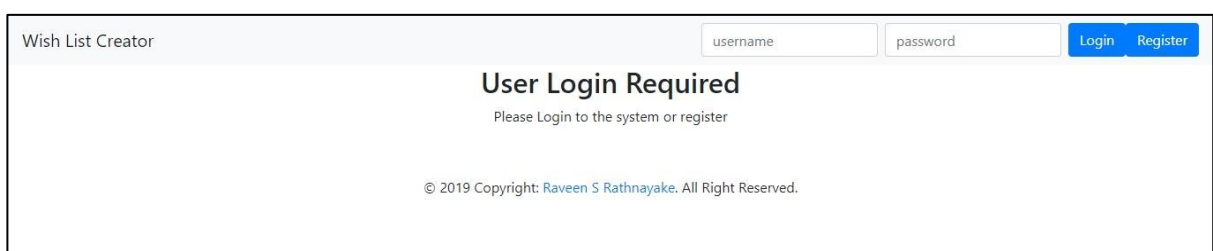
// load the view when page is loaded and set the view inside the container
var login_view = new UserLoginView({el: $("#body-div")});

Backbone.View.prototype.close = function () {
    this.$el.empty();
    this.unbind();
};

```

## 5. Screen Shots

### 5.1 Login



Wish List Creator

username password Login Register

### User Login Required

Please Login to the system or register

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## 5.2 Register

[Home](#)[Login](#)

### User Registration

Please enter user details to register the new user

Username\*

admin

Password\*

....

Name\*

Administrator

List Name\*

Loved Items

List Description\*

This is my wish list.

Register

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## 5.3 Wish List

[Wish List Creator](#)[Hi raveen](#)[Logout](#)

### Gadgets List

This list contains tech gadgets.

JayBird X3	Delete
Apple iPhone XS	Delete

Title: Apple iPhone XS

URL: <https://www.apple.com/lae/iphone-xs/>

Price(LKR): 220000.00

Priority: 3

### Create Wish List Item

Title\*

Title

URL\*

URL

Price (LKR)\*

Ex: 10.00

Priority\*

Must Have(1)

Add Item

### Request a wish list share link

Generate

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## 5.4 Add Item

Wish List Creator

Hi raveen [Logout](#)

### Gadgets List

This list contains tech gadgets.

JayBird X3

Delete

Title: JayBird X3

URL: <https://www.amazon.com/Jaybird-Wireless-Bluetooth-Sports-Headphones/dp/B01M7NCT5O>

Price(LKR): 10000.00

Priority: 2

Apple iPhone XS

Delete

Title: Apple iPhone XS

URL: <https://www.apple.com/lae/iphone-xs/>

Price(LKR): 220000.00

Priority: 3

### Create Wish List Item

Title\*

Apple Watch 4

URL\*

<https://www.apple.com/lae/apple-watch-series-4/>

Price (LKR)\*

85000

Priority\*

Must Have(1) ▼

Add Item

### Request a wish list share link

Generate

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## 5.5 After deleting item

Wish List Creator

Hi raveen [Logout](#)

### Gadgets List

This list contains tech gadgets.

Apple Watch 4	<a href="#">Delete</a>
JayBird X3	<a href="#">Delete</a>

### Create Wish List Item

Title\*

URL\*

Price (LKR)\*

Priority\*

[Add Item](#)

### Request a wish list share link

[Generate](#)

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## 5.6 Generate link to share the list

Wish List Creator

Hi raveen [Logout](#)

### Gadgets List

This list contains tech gadgets.

Apple Watch 4	<a href="#">Delete</a>
JayBird X3	<a href="#">Delete</a>
Apple iPhone XS	<a href="#">Delete</a>

### Create Wish List Item

Title\*

URL\*

Price (LKR)\*

Priority\*

[Add Item](#)

### Request a wish list share link

[Generate](#)

<http://localhost/wishList/index.php/showlist/37>

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## 5.7 Shared List (Guest view)

Wish List Creator

Login Or Register

### Raveen S Rathnayake's Gadgets List Wish List

This list contains tech gadgets.

JayBird X3

Title: JayBird X3

URL: <https://www.amazon.com/Jaybird-Wireless-Bluetooth-Sports-Headphones/dp/B01M7NCT5O>

Price(LKR): 10000.00

Priority: 2

Apple iPhone XS

Title: Apple iPhone XS

URL: <https://www.apple.com/lae/iphone-xs/>

Price(LKR): 220000.00

Priority: 3

Apple Watch 4

Title: Apple Watch 4

URL: <https://www.apple.com/lae/apple-watch-series-4/>

Price(LKR): 85000.00

Priority: 1

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## 6. SQL Code

```
-- phpMyAdmin SQL Dump
-- version 4.8.3
-- https://www.phpmyadmin.net/
--
-- Host: 127.0.0.1
-- Generation Time: Jan 24, 2019 at 10:58 AM
-- Server version: 10.1.36-MariaDB
-- PHP Version: 7.2.10

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET AUTOCOMMIT = 0;
START TRANSACTION;
SET time_zone = "+00:00";

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `wish_list`
--

--
-- Table structure for table `item`
--

CREATE TABLE `item` (
  `itemId` int(50) NOT NULL,
  `title` varchar(255) NOT NULL,
  `url` text NOT NULL,
  `price` decimal(10,2) NOT NULL,
  `priority` int(1) NOT NULL,
  `userId` int(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Table structure for table `user`
--

CREATE TABLE `user` (
```

```
`userId` int(50) NOT NULL,  
`username` varchar(255) NOT NULL,  
`password` text NOT NULL,  
`name` varchar(255) NOT NULL,  
`listName` varchar(255) NOT NULL,  
`listDescription` text NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;  
  
--  
-- Indexes for dumped tables  
--  
  
--  
-- Indexes for table `item`  
--  
ALTER TABLE `item`  
  ADD PRIMARY KEY (`itemId`),  
  ADD UNIQUE KEY `UK_1` (`title`,`userId`),  
  ADD KEY `FK_CK_1` (`userId`);  
  
--  
-- Indexes for table `user`  
--  
ALTER TABLE `user`  
  ADD PRIMARY KEY (`userId`),  
  ADD UNIQUE KEY `username` (`username`);  
  
--  
-- AUTO_INCREMENT for dumped tables  
--  
  
--  
-- AUTO_INCREMENT for table `item`  
--  
ALTER TABLE `item`  
  MODIFY `itemId` int(50) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=21;  
  
--  
-- AUTO_INCREMENT for table `user`  
--  
ALTER TABLE `user`  
  MODIFY `userId` int(50) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=37;  
  
--  
-- Constraints for dumped tables  
--  
  
--
```

```
-- Constraints for table `item`  
--  
ALTER TABLE `item`  
  ADD CONSTRAINT `FK_CK_1` FOREIGN KEY (`userId`) REFERENCES `user`  
  (`userId`);  
COMMIT;  
  
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;  
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;  
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```