2.4.3.6 Create *keycloakCallback* Function

Create a `keycloakCallback` function in the **Auth.php** file controller. Fetch the authorization code and access token.

```php
public function keycloakCallback()
{
    try {

        $code = $this->request->getGet('code');

        if (!$code) {

            log_message('error', "Authorization code is missing.");

            throw new \Exception("Authorization code missing.");

        }

        log_message('debug', 'Authorization code received: ' . $code);


        $tokenData = $this->getAccessToken($code);

        log_message('debug', 'Access token retrieved: ' . json_encode($tokenData));


        $accessToken = $tokenData['access_token'];
```

Figure 35: keycloakCallback Function

Fetch user info and validate user information using the access token.

```php
$userInfo = $this->getUserInfo($accessToken);

log_message('debug', 'Keycloak user info retrieved: ' . json_encode($userInfo));


$nric = $userInfo['nric'] ?? null;

if (!$nric) {

    log_message('error', "NRIC missing in Keycloak user info.");

    throw new \Exception("NRIC is missing.");

}
```

Figure 36: Fetch userInfo

Store user data such as IC number and name in session.

```php
session()->set('keycloak_user', [
    'nama' => $userInfo['nama'] ?? 'Unknown',
    'nric' => $nric,
]);
log_message('debug', 'Keycloak User Data Stored in Session: ' . json_encode(session()->get('keycloak_user')));
```

Figure 37: Store User Data

Verify if the IC number matches in the database. If the IC number is found and matches, log the user in. Then, if the IC number is not found or does not match, handle linking or registration.

```php
        $user = $this->auth_model->where('ic_number', $nric)->first();

        if ($user) {

            foreach ($user as $k => $v) {

                session()->set('login_' . $k, $v);

            }

            log_message('debug', 'Existing user logged in: ' . json_encode($user));

            return redirect()->to('/Main');

        } else {

            log_message('debug', 'User not found in DB. Redirecting to registration.');

            return view('auth/ic_number_not_found');

        }

    } catch (\Exception $e) {

        log_message('error', "Keycloak callback error: " . $e->getMessage());

        return redirect()->to('/login')->with('error', 'Authentication failed.');

    }

}
```

Figure 38: Verify IC Number