Sure, let's identify and describe each route in the provided Express.js routing module.

Routes Overview:

1. Middleware: CheckLogged

• Path: Used in various routes

Method: Middleware

• **Description:** This middleware checks if a user is already logged in by verifying the JWT token in the cookies. If the user is logged in, it responds with a status indicating the user is already logged in; otherwise, it allows the request to proceed.

2. Update User Profile

• Path: /update_profile

Method: POST

• **Description:** This route updates the user's profile information, such as first name, last name, and profile picture, in the database.

3. Check If Logged

Path: /checkLogged

Method: GET

• **Description:** This route uses the **CheckLogged** middleware to check if the user is logged in. If not logged in, it returns a status indicating the user is not logged in.

4. User Signup

Path: /signup

Method: POST

• **Description**: This route handles user signups, supporting both manual signups (with email and password) and OAuth-based signups. For manual signups, it sends a verification email to the user.

5. Check Pending Signup

Path: /checkPending

• Method: GET

• **Description:** This route checks if a user signup is pending by verifying the provided user ID. It's used to check the status of email verification.

6. Finish Signup

• Path: /signup-finish

Method: PUT

• **Description:** This route completes the user signup process after email verification. It finalizes the user's registration in the system.

7. User Login

• Path: /login

Method: GET

• **Description:** This route handles user login, supporting both manual login (with email and password) and OAuth-based login. It verifies user credentials and returns a response indicating the login status.

8. Request Password Reset

Path: /forgot-request

Method: POST

• **Description:** This route handles password reset requests. It generates a secret token and sends a password reset email to the user.

9. Check Password Reset Request

• Path: /forgot-check

Method: GET

• **Description:** This route checks the validity of a password reset request by verifying the provided user ID and secret token.

10. Finish Password Reset

• Path: /forgot-finish

Method: PUT

• **Description:** This route completes the password reset process by updating the user's password in the database.

Detailed Description of Each Route:

1. Middleware: CheckLogged

Purpose: Verifies the user's JWT token to check if they are logged in.

• Process:

- 1. Extracts the token from cookies.
- 2. Verifies the token using jwt.verify().
- 3. If valid, fetches user data and sends a response indicating the user is already logged in.
- 4. If invalid, clears the token and proceeds to the next middleware or route handler.

2. Update User Profile

- Purpose: Updates user profile information in the database.
- Process:
 - 1. Extracts email, firstName, lastName, and profilePicture from the request body.
 - 2. Updates the user document in the **user** collection.
 - 3. Sends a success response or an error message if the update fails.

3. Check If Logged

- Purpose: Checks if the user is logged in.
- Process:
 - 1. Uses CheckLogged middleware.
 - 2. If not logged in, responds with a status indicating the user is not logged in.

4. User Signup

- Purpose: Handles user signups, both manual and OAuth-based.
- Process:
 - 1. For manual signups, verifies the password length and sends a verification email.
 - 2. For OAuth signups, verifies the OAuth token and email.
 - 3. Calls user.signup() to create a new user with pending status.
 - 4. Sends a verification email with a unique link for manual signups.
 - 5. Responds with a success message or an error message if signup fails.

5. Check Pending Signup

- Purpose: Checks if a user signup is pending verification.
- Process:
 - 1. Extracts **_id** from the query parameters.
 - 2. Calls user.checkPending() to check the signup status.
 - 3. Responds with the signup status or an error message if the check fails.

6. Finish Signup

- Purpose: Completes the user signup process after email verification.
- Process:
 - 1. Extracts user data from the request body.
 - 2. Calls user.finishSignup() to finalize the user's registration.
 - 3. Responds with a success message or an error message if the process fails.

7. User Login

- Purpose: Handles user logins, both manual and OAuth-based.
- Process:

- 1. For manual logins, verifies email and password.
- 2. For OAuth logins, verifies the OAuth token and email.
- 3. Calls user.login() to authenticate the user.
- 4. Responds with a success message or an error message if login fails.

8. Request Password Reset

- Purpose: Initiates a password reset process.
- Process:
 - 1. Extracts email from the request body.
 - 2. Generates a secret token for password reset.
 - 3. Calls user.forgotRequest() to create a password reset request.
 - 4. Sends a password reset email with a unique link.
 - 5. Responds with a success message or an error message if the request fails.

9. Check Password Reset Request

- Purpose: Verifies the validity of a password reset request.
- Process:
 - 1. Extracts **_id** and **secret** from the query parameters.
 - 2. Calls user.forgotCheck() to check the request validity.
 - 3. Responds with the request status or an error message if the check fails.

10. Finish Password Reset

- Purpose: Completes the password reset process.
- Process:
 - 1. Extracts user data from the request body.
 - 2. Calls user.forgotFinish() to update the user's password.
 - 3. Responds with a success message or an error message if the process fails.

This module provides a comprehensive set of routes for user authentication, including profile updates, signups, logins, and password resets, with robust error handling and support for both manual and OAuth-based operations.