

OAuth 2.0 Template



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OAuth 2.0 System Specifications

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2 Versionsverlauf

Version	Requirements
<i>Full Auth System</i> 1.0, 03.06.2023 Carlson Patrick	Design, <ul style="list-style-type: none">- SPA, Cross-Platform, Userexperience, SEO- UI – Template + Dark & Bright Mode- Database (PSQL), Setup- Separate Frontend from Backend (Modularity)
<i>Check: 05.06.2023</i>	Globals, <ul style="list-style-type: none">- Auth-System, Middleware & Access Management- Server Request: Apis + Response Handling- Client: Userstore & Response Handling
	Visitor, <ul style="list-style-type: none">- Landingpage simple Navigation- User Auth: Create Account, Verify email, Reset Password, Login
	User, <ul style="list-style-type: none">- Profilemanagement: Avatar, Name, Password, Transfer Account (Change Email), Delete Account (CASCADE)
	Admin, <ul style="list-style-type: none">- Backpanel (Useramount, etc.)

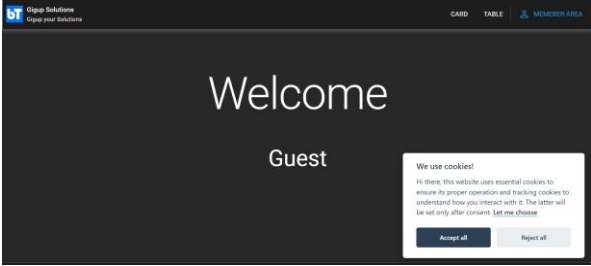
3 Features

3.1 Globals

Middleware & Authentication System-Access-Management	Frontend: Vue 3 (Client) <ul style="list-style-type: none">☒ Userstore Pinia: Client Access & Data Management☒ Axios: API – Requests to Server☒ Response Handling: Client <- Server☒ Cookie-Consent Backend: Laravel 10 (Server) <ul style="list-style-type: none">☒ Laravel Passport: User Authentication☒ Middleware: Access-Management / Userauth☒ API Calls: from Client<ul style="list-style-type: none">- Received Data (by Client), must be checked for Datatype foreach request☒ PostgreSQL, Default Migrations	Userstore { access: {}, user: {}, actions: () => { setUser(), setToken(), setSession(), removeToken(), removeSession(), removeAdmin(), } }
Response Handling	Success: 200, Errors <ul style="list-style-type: none">- 422, Error occurred Custom Error Handling <ul style="list-style-type: none">- 401 && 'email_not_verified' Always remove Session (userstore) & Token, push to '/email-verification'- 401 && 'no_admin' Always remove Admin (userstore), push '/dashboard'- 401, no access <i>User must login again (Local Token may be set)</i> Only removeSession (userstore), push to '/login'	ResponseHandling : { globalAttributes, errorHandling: (response, router) => { // Custom error Handling }, load(), loaded(), sucess(String), error(String Object) // Includes errorHandling }

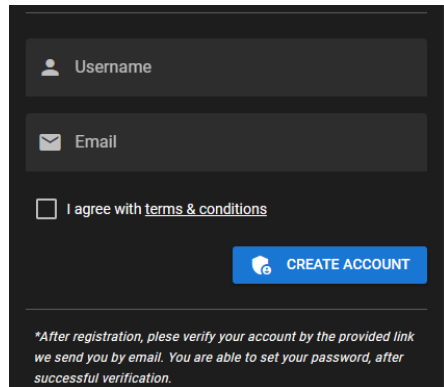
3.2 Visitor

3.2.1 Landingpage

Features	Requirements	API & Data
Landingpage 	<ul style="list-style-type: none"><input checked="" type="checkbox"/> Cookie Consent must be shown and must initialize after user accepted / rejected<input checked="" type="checkbox"/> Userstore - Client, must be initialized, so User / Visitor is able to gain access to certain pages.<input checked="" type="checkbox"/> Visitor can choose between dark and bright mode.<input checked="" type="checkbox"/> Visitor must be able to Navigate by Landingpage<input checked="" type="checkbox"/> SEO Optimization	Only client, yet.

3.2.2 Visitor Accountmanagement

Create Account

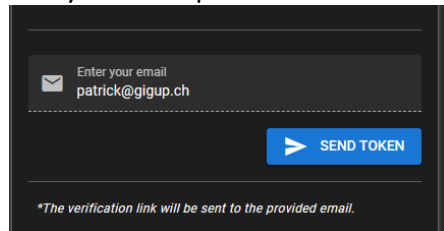


A dark-themed form titled "Create Account". It contains two input fields: "Username" with a person icon and "Email" with an envelope icon. Below these is a checkbox labeled "I agree with [terms & conditions](#)". A blue button with a white icon and the text "CREATE ACCOUNT" is positioned below the checkbox. At the bottom, a small italicized note reads: "*After registration, please verify your account by the provided link we send you by email. You are able to set your password, after successful verification."

- ☒ Visitor can create account, after he entered username and email.
- ☒ Users password will be set, after verifying its email
- ☒ Set random password (hashed, 255 chars)
- ☒ Visitor must agree with terms and conditions.
- ☒ After successful registration, he will be redirected to verify it's email.

```
axios.post("/create-account", {  
  'name': String,  
  'email': String,  
  'terms': Boolean,  
});
```

Verify Email Request



A dark-themed form for requesting a verification token. It features an email input field with the placeholder 'Enter your email' and the example 'patrick@gigup.ch'. Below the input is a blue button with a right-pointing arrow and the text 'SEND TOKEN'. At the bottom, a small italicized note states: '*The verification link will be sent to the provided email.'

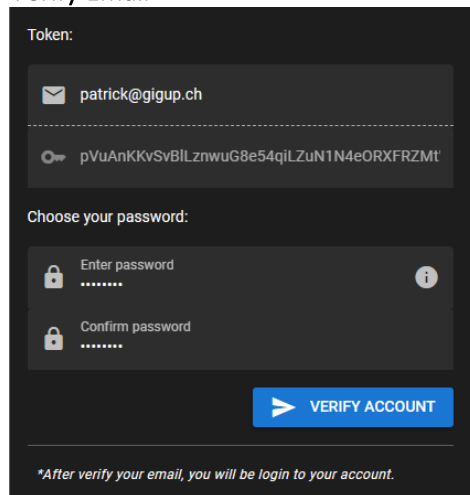
- ☒ Visitor must click button send token, to receive the verification token to its email.
- ☒ Token is 255 Character, no hashing required
- ☒ Link must expire
- ☒ Link is signed
- ☒ Email with Token will be sent from our SMTP Email Server

```
axios.post("/email-verification-request", {  
  'email': String,  
});
```

Token: Email Verification

Token sent to Useremail:
`{signedRoute}/{email}/{token}?{expires}&{signatur}`

Verify Email



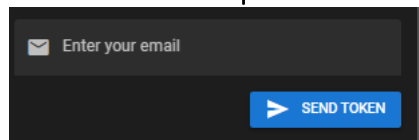
A dark-themed form for verifying an email account. It shows a 'Token:' section with an email 'patrick@gigup.ch' and a long alphanumeric token. Below this is a 'Choose your password:' section with two password input fields labeled 'Enter password' and 'Confirm password', each with a lock icon and a strength indicator. A blue button with a right-pointing arrow and 'VERIFY ACCOUNT' is at the bottom. A small italicized note at the very bottom says: '*After verify your email, you will be login to your account.'

- ☒ User has to verify its account by the token, sent to its mail.
- ☒ Signedroute, Email, Token, Signatur must be valid! User is not verified yet. He has 5 attemps before baning for 1min
- ☒ Only working, if user is not verified yet.
- ☒ User must enter new password (ac. Requirements), which will be hashed and updated.
- ☒ After successfull verification, token must be set to null
- ☒ After successfull verification email_verified_at must be set to now()
- ☒ Password must succeed Requirements and will be hashed
- ☒ User will be login after successfull verification of email

```
// Redirecting Request from Client-URL  
// to Origin-URL (SERVER)  
// Server Request to signedRoute  
axios.put(signedRoute, {  
  'password': String,  
  'password_confirmation': String,  
});
```

See: Token: Email Verification Request

Password Reset Request

A dark-themed form for password reset request. It features an email icon and the text "Enter your email" in a light gray box. Below this is a blue button with a right-pointing arrow and the text "SEND TOKEN".

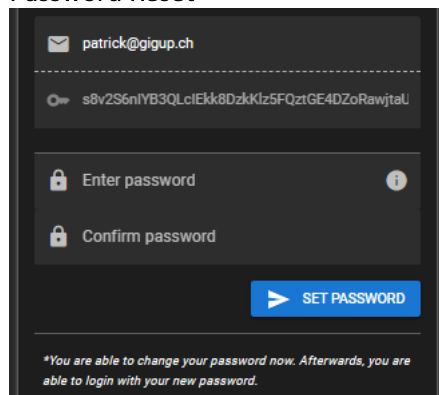
- ☒ Visitor can enter email
- ☒ Visitor will be redirected to Landingpage
- ☒ We do not inform Visitor, if email is existing
- ☒ Token is 255 Character, no hashing required
- ☒ Email with Token will be sent from our SMTP Email Server
- ☒ We make limit of 5 attempts : 1min Ban

```
return axios.post(
  "/password-reset-request", {
    'email': String
  });
```

Token: Password reset

Token sent to Useremail:
`{signedRoute}/{email}/{token}?{expires}&{signatur}`

Password Reset

A dark-themed form for password reset. It shows the email "patrick@gigup.ch" and a generated token "s8v2S6niYB3QLclEkk8DzkKlz5FQztGE4DZoRawjtaU". Below this are two password input fields labeled "Enter password" and "Confirm password", each with a lock icon and an information icon. A blue "SET PASSWORD" button is at the bottom. A footer note states: "*You are able to change your password now. Afterwards, you are able to login with your new password."

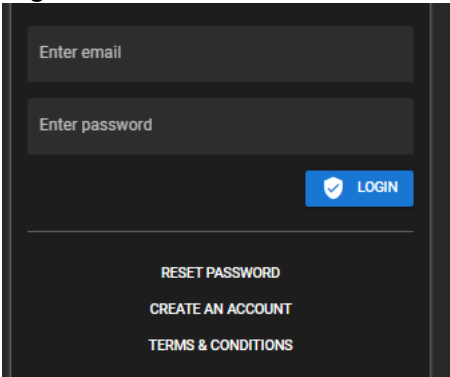
- ☒ Visitor has to verify its account by the token, sent to its mail.
- ☒ Signedroute, Email, Token, Signatur must be valid! He has 5 attempts before baning for 1min
- ☒ Visitor must enter new password (ac. Requirements), which will be hashed and updated.
- ☒ After successfull verification, token must be set to null
- ☒ Visitor will be login after successfull update of ist hashed password

```
return axios.put(
  signedRoute, {
    'password': String,
    'password_confirmation': String
  });
```

See: Token: Password Reset Request

3.2.3 Visitor Login


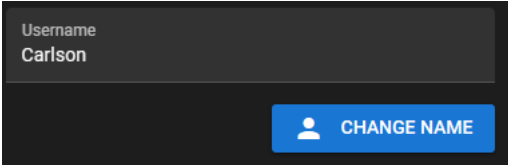
Visitor can create an account, as well as manage his account credentials.

Features	Stories	API & Data
Login 	<ul style="list-style-type: none">☑ Before accessing to Member area, we must check, if Visitor has already a ongoing session in its localstore (Bearer Token set, Laravel Passport).☑ If Bearer Token exists, the token will be set in HTML Head and Visitor will be redirected to authorization (see «Authorization») as User.☑ If Bearer Token is not set, Visitor must manually login by email & password. Attempts: 7 : 1min penalty.☑ If login is successful, Bearer Token will be set in HTML Header and Localstore. Visitor will be redirected to Authorization (see «Authorization»).☑ User email must be verified. If not, redirected to «Verify-Email-Request»☑ Redirections: <i>Reset password Create an account, Terms & Conditions</i> (Popup)	<pre>axios.post("/login", { 'email': String, 'password': String, });</pre> <p>Response:</p> <pre>return response()->json(['token' => String, 'message' => String], 200);</pre> <p>Email not verified:</p> <pre>return response()->json(['status' => email_not_verified, 'email' => String, 'message' => String,], 401);</pre>
Authorization	<ul style="list-style-type: none">☑ For each Userrequest, check if user is authorized by Bearer Token set in HTML Header (Middleware)☑ Get default user data, to store in Userstore (user, access)☑ Check if user is Admin☑ Every failed Authorization of user will be handled by custom Errorhandling	<pre>axios.get('/auth')</pre> <p>Response:</p> <pre>return response()->json(['id' => ID, 'name' => String, 'avatar' => String null, 'email' => String, 'is_admin' => Boolean], 200);</pre>

Logout	<ul style="list-style-type: none">☑After Logout, we want to delete Token in DB, so Session is removed☑Userstore (Client) will be reset to visitor☑Client Token in Local store must be removed, see Login: Check Session	<pre>axios.post('/logout');</pre> <p>Response</p> <pre>return response()->json(['message' => String , 200]);</pre>
--------	---	---


3.3 User

3.3.1 Profilemanagement


Features	Stories	API & Data
Avatar 	<ul style="list-style-type: none"><input checked="" type="checkbox"/> User can create, update, delete its avatar<input checked="" type="checkbox"/> Avatar size < 2MB, only 1 Avatar per User.<input checked="" type="checkbox"/> Avatar-Image will be saved on Servers «Public Store». The current Avatarname will be saved in users DB. Avatarname must be UNIQUE and can be Nullable!<input checked="" type="checkbox"/> Only 1 Avatar per User (Update, old avatar must be deleted)<input type="checkbox"/> If user is deleting it's account, avatar must be deleted as well (See «Delete Account»)	<pre>axios.post('/user-change-avatar', formData as Object)</pre> <p>Formdata:</p> <ul style="list-style-type: none">- Avatar: Imagedata- Delete: '1' ? '0' <pre>return response()->json(['message' => String,], 200);</pre>
Change Name 	<ul style="list-style-type: none"><input checked="" type="checkbox"/> User can change name easily<input checked="" type="checkbox"/> Name must be updated in Userstore	<pre>axios.post('/user-change-name', { name: String });</pre> <pre>return response()->json(['message' => String,], 200);</pre>

Change Password

Confirm current password

Enter new password 

Confirm new password

 CHANGE PASSWORD


- ☑ User can change its password
- ☑ User must confirm by current password
- ☑ New Password must pass requirements
- ☑ New Password will be hashed and saved in DB

```
axios.post('user-change-password', {  
  'password_current': String,  
  'password': String,  
  'password_confirmation': String  
});
```

```
return response()->json([  
  'message' => String,  
], 200);
```

Delete Account

Confirm by password

 DELETE ACCOUNT

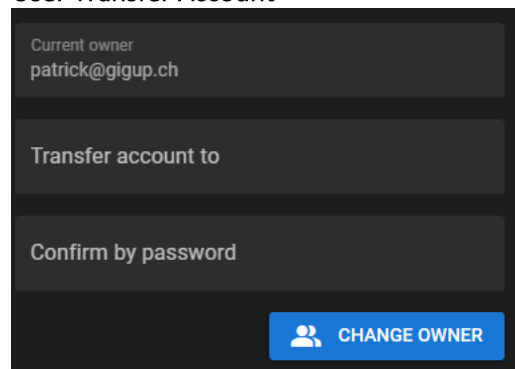
- ☑ User can delete account, by confirming with password
- ☑ All data in DB of current User will be deleted (CASCADE) + Tokens
- ☑ Avatar must be deleted
- ☑ User will be logged out and Session is destroyed

```
axios.post('user-delete-account', {  
  'password': String,  
});
```

```
return response()->json([  
  'message' => String,  
], 200);
```

3.3.1.1 Transfer Account

User Transfer Account



The form is titled "User Transfer Account". It contains three input fields: "Current owner" with the value "patrick@gigup.ch", "Transfer account to", and "Confirm by password". At the bottom right, there is a blue button with a user icon and the text "CHANGE OWNER".

- ☑ User can transfer its mail to new user, with another mail (transfer)
- ☑ User must confirm by password
- ☑ Email with Token will be sent from our SMTP Email Server to the provided email
- ☑ Token must be 255 characters, no hash required
- ☑ Link must expire, Link is signed
- ☑ Email_verified_at must set to NULL
- ☑ Before changing current email, new user has to verify his new email adress. Old user is still able to undone its transfer, by verifying its old email again see «Make Transfer undone»
- ☑ After successfull request, user will be logged out & Bearer Token is removed

```
axios.post('user-transfer-account',  
  {  
    'email': String,  
    'password': String,  
  });
```

```
response()->json([  
  'message' => String,  
], 200);
```

Token: New Email Verification

```
{signedRoute}/{email}/{token}/  
  {transfer}?{expires}&{signature}
```

Make Transfer undone

- ☑ Login: User must login with its old credentials
- ☑ Email_verified_at = null
- ☑ User can verify its account again, see «Email Verification Request»

Transfer Account

Transfer from:

✉ patrick@gigup.ch

🔑 XzBqzJ2HyxHx92qvg7QneVRemUcQSVKUpweQYY

To:

✉ patrick@bumatools.ch

Choose your password:

🔒 Enter password ⓘ

🔒 Confirm password

☐ I agree with [terms & conditions](#)

➤ TRANSFER ACCOUNT

- ☒ Transfer from (old email, token) to (new email) only read
- ☒ New Password will be set (hashed)
- ☒ User must agree with Terms & Conditions
- ☒ Check if Link is valid and token is correct
- ☒ After successfull Transfer, new user will be logged in automatically.

```
axios.put(signedRoute, {  
  'password': String,  
  'password_confirmation': String,  
  'terms': Bool  
});
```

```
return response()->json([  
  'message' => String,  
], 200);
```

3.4 Admin

3.4.1 Backpanel

Features	Stories	API & Data
Dashboard	<ul style="list-style-type: none">☑ Only if user is admin, user can See Admin link on left Navbar.☑ Redirect to Adminbackpanel and get infos. Adapt Left Navbar with Adminfeatures.☑ Admin can switch to User again by left Navbar. Adapt left Navbar with Userfeatures.	<pre>axios.get("/admin-backpanel"); return response()->json(['users' => Int], 200);</pre>

4 Backlog