



```
model User {
  id Int @id @default(autoincrement())
  username String @unique
  firstName String
  lastName String
  email String @unique
  password String // Hashed

  // Optional
  avatar String?
  phoneNumber String?
  role String @default("USER")

  // Empty upon creation
  createdAt DateTime @default(now())
  templates Template[]
  refreshTokens RefreshToken[]
  blogs Blog[]
  comments Comment[]
  commentVotes CommentVote[]
  blogVotes BlogVote[]
  blogReports BlogReport[]
  commentReports CommentReport[]
}

model RefreshToken {
  id Int @id @default(autoincrement())
  token String @unique
  userId Int
  user User @relation(fields: [userId], references: [id], onDelete: Cascade, onUpdate: Cascade)
  expiresAt DateTime
  createdAt DateTime @default(now())
  updatedAt DateTime @updatedAt
}

model Template {
  id Int @id @default(autoincrement())
```

```

title String
@@unique([authorId, title])
explanation String
code      String
language  String // must enforce types C, CPP, JAVA, PYTHON, JAVASCRIPT
author    User    @relation(fields: [authorId], references: [id], onDelete: Cascade, onUpdate: Cascade)
authorId  Int
createdAt DateTime @default(now())
updatedAt DateTime @updatedAt
blogs     Blog[]

tags       Tag[]

hidden Boolean @default(false)

// Fork
forkedCopies Template[] @relation("ForkedTemplates")
forkedFromId Int?
forkedFrom Template? @relation("ForkedTemplates", fields: [forkedFromId], references: [id], onDelete: Cascade,
onUpdate: Cascade)
}

model Tag {
  id      Int @id @default(autoincrement())
  name    String @unique

  templates Template[]

  blogs     Blog[]
}

model Blog {
  id Int @id @default(autoincrement())
  title String
  description String
  content String
  tags Tag[]

```

```

authorId Int
author User @relation(fields: [authorId], references: [id], onDelete: Cascade, onUpdate: Cascade)
templates Template[]
comments Comment[]
blogReports BlogReport[]
hidden Boolean @default(false)

// Upvotes
upvotes BlogVote[]
}

model Comment {
  id Int @id @default(autoincrement())
  content String
  createdAt DateTime @default(now())
  updatedAt DateTime @updatedAt

  blog Blog @relation(fields: [blogId], references: [id], onDelete: Cascade, onUpdate: Cascade)
  blogId Int

  attachment String?

  // Author
  author User @relation(fields: [authorId], references: [id], onDelete: Cascade, onUpdate: Cascade)
  authorId Int

  parent Comment? @relation("CommentReplies", fields: [parentId], references: [id], onDelete: Cascade, onUpdate: Cascade)
  parentId Int?

  // Replies
  replies Comment[] @relation("CommentReplies")
  votes CommentVote[]

  // Reports
  reports CommentReport[]

```

```

// Rating
rating Float // Calculated by upvotes - downvotes. Should be automated in vote registration.

// Hidden
hidden Boolean @default(false)
}

model BlogVote {
  upvoteId Int @id @default(autoincrement())
  upVote Boolean // if false, then downVote
  blogId Int
  blogIdConstraint Blog @relation(fields: [blogId], references: [id], onDelete: Cascade, onUpdate: Cascade)

  // Author
  by Int
  byUser User @relation(fields: [by], references: [id], onDelete: Cascade, onUpdate: Cascade)
}

model CommentVote {
  upvoteId Int @id @default(autoincrement())
  upVote Boolean // if false, then downVote
  commentId Int
  commentIdConstraint Comment @relation(fields: [commentId], references: [id], onDelete: Cascade, onUpdate: Cascade)

  // Author
  by Int
  byUser User @relation(fields: [by], references: [id], onDelete: Cascade, onUpdate: Cascade)
}

model BlogReport {
  blogReportId Int @id @default(autoincrement())

  blogId Int
  blogIdConstraint Blog @relation(fields: [blogId], references: [id], onDelete: Cascade, onUpdate: Cascade)
  description String
  screenshots String?
}

```

```
resolved Boolean @default(false)

// Author
byUser Int
byUserConstraint User @relation(fields: [byUser], references: [id], onDelete: Cascade, onUpdate: Cascade)
}

model CommentReport {
  commentReportId Int @id @default(autoincrement())

  commentId Int
  commentIdConstraint Comment @relation(fields: [commentId], references: [id], onDelete: Cascade, onUpdate:
Cascade)
  description String
  screenshots String?

  resolved Boolean @default(false)

  // Author
  byUser Int
  byUserConstraint User @relation(fields: [byUser], references: [id], onDelete: Cascade, onUpdate: Cascade)
}
```

# CSC309 Backend

---

## users

---

### basic-user-operation

---

#### POST signup as a user

`http://localhost:3000/api/user/signup`

Allows users to sign up. Users will automatically have the role USER, as there is only one ADMIN user in the system, which is created during setup.

User is then automatically logged in by being given an access token.

#### Body raw (json)

---

json

```
{
  "username": "alice",
  "password": "Abcdefgh!1",
  "firstName": "alice",
  "lastName": "au",
  "email": "alice@test.com"
}
```

#### POST login as a user

`http://localhost:3000/api/user/login`

Logs a user in. Can log in using a `username` or an `email`. Responds with access token

Logs a user in. Can log in using a `username` or an `email`. Responds with access tokens.

### Body raw (json)

---

json

```
{
  "username": "alice",
  "password": "Abcdefgh!1"
}
```

---

## POST login as an admin

`http://localhost:3000/api/user/login`

Same behaviour as above.

Used for signing in admin user.

### Body raw (json)

---

json

```
{
  "username": "admin",
  "password": "admin"
}
```

---

## POST logout as a user

`http://localhost:3000/api/user/logout`

Logs out user by deleting refresh token. The token ensures that the user's session is invalidated, enhancing security by preventing unauthorized access post-logout.

### HEADERS

---

Authorization

{{accessToken}}



## Body raw (json)

---

```
json

{
  "refreshToken": "{{refreshToken}}"
}
```

---

## POST refresh authentication token

http://localhost:3000/api/user/refresh

Used to exchange a valid refresh token for a new access token, ensuring continued authentication for the user without requiring them to log in again.

## HEADERS

---

Authorization {{accessToken}}

## Body raw (json)

---

```
json

{
  "refreshToken": "{{refreshToken}}"
}
```

---

## me

---

## GET get own user info

http://localhost:3000/api/user/me

Retrieves details about the currently authenticated user.

## HEADERS

## HEADERS

---

**Authorization** {{accessToken}}

---

## PUT update own user info

http://localhost:3000/api/user/me

Updates profile for the currently authenticated user.

## HEADERS

---

**Authorization** {{accessToken}}

**Body** raw (json)

---

json

```
{
  "firstName": "eren",
  "lastName": "jaeger",
  "email": "aot@iseyama.com",
  "password": "Abcdefgh!1",
  "newPassword": "LeviJeans123!!!!",
  "avatar": "image.jpg",
  "phoneNumber": "62341231"
}
```

## DELETE delete account as a user

http://localhost:3000/api/user/delete

Deletes the currently authenticated user's account.

## HEADERS

---

**Authorization** {{accessToken}}

**Body** raw (json)

---

json

```
{  
  "password": "Abcdefgh!1"  
}
```

---

## templates

---

### POST create a template as a user

http://localhost:3000/api/templates

Posts template with `id` with the following fields:

`title`: the title of the template

`explanation`: a description of the template's contents

`code`: the actual code in the template

`language`: programming language of the code

### HEADERS

---

**Authorization** `{{accessToken}}`

**Body** raw (json)

---

json

```
{  
  "title": "csc309 week 2",  
  "explanation": "javascript intro",  
  "code": "console.log(\"hi\");",  
  "language": "javascript"  
}
```

## GET search templates as a visitor/user

`http://localhost:3000/api/templates?page=1&pageSize=5`

Retrieves a paginated list of templates based on specified filters and criteria:

`page`: Page number of results.

`pageSize`: Number of items per page.

`search`: Keyword for filtering.

`tags`: Comma-separated tags.

`authorId`: ID of the author.

`language`: Programming language,

### HEADERS

---

Authorization	{{accessToken}}
---------------	-----------------

### PARAMS

---

page	1
pageSize	5
search	csc309
authorId	1
language	javascript

---

## GET get single template as user/visitor

`http://localhost:3000/api/templates/1`

Retrieve data for a single template.

---

## POST fork a template as user

`http://localhost:3000/api/templates/3/fork`

Creates a copy of another template.

## HEADERS

---

**Authorization** `{{accessToken}}`

## PARAMS

---

**Body** raw (json)

---

json

```
{  
  "title": "forked template 2"  
}
```

---

## PUT update a template as user

`http://localhost:3000/api/templates/3`

Updates template with `id` for the following optional fields:

`title`: the title of the template

`explanation`: a description of the template's contents

`code`: the actual code in the template

`tags`: the tags associated with the template

`language`: programming language of the code

## HEADERS

---

**Authorization** `{{accessToken}}`

**Body** raw (json)

---

json

```
{
  "title": "csc309 week 2",
  "explanation": "javascript intro",
  "code": "console.log(\"hi\");",
  "tags": "simple,educational",
  "language": "javascript"
}
```

---

## DELETE delete template as user

http://localhost:3000/api/templates/2

Deletes template if the authenticated user is the author.

### HEADERS

---

Authorization

{{accessToken}}

---

## reports

---

## commentReports

---

### GET get a commentReport as user/admin

http://localhost:3000/api/reports/commentReports/3

Gets comment report with `id`. Only visible to author of the comment and admin.

---

### PUT update a commentReport as admin

http://localhost:3000/api/reports/commentReports/3

---

Updates comment report with `id` with the following content fields. Fields marked as required have a `required` attribute.

Updates comment report with `id` with the following optional fields. Fails if user is does not have role `ADMIN`.

description

screenshots

resolved

## Body raw (json)

---

json

```
{
  "description": "bad comment",
  "screenshots": "image.png",
  "resolved": true
}
```

---

## DELETE delete a commentReport as admin.

http://localhost:3000/api/reports/commentReports/3

Deletes a comment report with `id`. Will fail if user does not have role `ADMIN`.

---

# blogReports

## GET get a blogReport

http://localhost:3000/api/reports/blogReports/1?

Gets blog report with `id`.

## HEADERS

---

Authorization `{{accessToken}}`

## PARAMS

---

---

## PUT update a blogReport

http://localhost:3000/api/reports/blogReports/1

Updates blog report with `id` with the following optional fields:

`description`

`screenshots`

`resolved`

### HEADERS

---

**Authorization** `{{accessToken}}`

**Body** raw (json)

---

json

```
{
  "description": "bad comment",
  "screenshots": "image.png",
  "resolved": true
}
```

---

## DELETE delete a blogReport

http://localhost:3000/api/reports/blogReports/2

Deletes a comment report with `id`. Will fail if user is not the author of the report.

### HEADERS

---

**Authorization** `{{accessToken}}`

---



## votes

---

### POST register a blog vote

http://localhost:3000/api/blogs/votes/

Adds a vote to blog with `blogId`. Upvotes if `upVote` is `true`, downvotes if `upVote` is `false`.

#### HEADERS

---

**Authorization** `{{accessToken}}`

**Body** raw (json)

---

json

```
{
  "upVote": false,
  "blogId": 1
}
```

---

## report

---

### POST report a blog

http://localhost:3000/api/blogs/report

Reports blog with `blogId` with the following fields:

`description`

`screenshots` (optional)

#### HEADERS

---

Authorization

{{accessToken}}

## Body raw (json)

---

json

```
{
  "blogId": "1",
  "description": "bad comment",
  "screenshots": "image.png"
}
```

---

## GET search blogReports

http://localhost:3000/api/blogs/report?page=1&pageSize=5&search=bad

Retrieves a paginated list of blogReports based on specified filters and criteria:

`page`: Page number of results.

`pageSize`: Number of items per page.

`search`: Keyword for filtering.

## HEADERS

---

Authorization

{{accessToken}}

## PARAMS

---

page	1
pageSize	5
search	bad

---

## POST create a blog

http://localhost:3000/api/blogs

Register a blog with the following fields:

title

description

content

tags (optional)

## HEADERS

---

**Authorization** {{accessToken}}

**Body** raw (json)

---

json

```
{
  "title": "cool blog about stuff",
  "description": "description about stuff",
  "content": "yap yap yap",
  "tags": "cool, funny, awesome",
  "templateIds": "1"
}
```

---

## GET list blogs with filtering

http://localhost:3000/api/blogs?page=1&pageSize=5&search=funny&template=3

Retrieves a paginated list of blogs based on specified filters and criteria:

page: Page number of results.

pageSize: Number of items per page.

search: Keyword for filtering.

tags: Comma-separated tags.

## HEADERS

---

**Authorization** {{accessToken}}

## PARAMS

---

page	1
pageSize	5
search	funny
tags	funny
template	3

---

## GET get a blog

http://localhost:3000/api/blogs/1

Retrieves information about blog with `id`.

## HEADERS

---

**Authorization** {{accessToken}}

---

## PUT update a blog

http://localhost:3000/api/blogs/1

Updates blog with `id` with the following optional fields:

`title content`

## HEADERS

---

**Authorization** {{accessToken}}

**Body** raw (json)

---

json

```
{
```

```
{
  "title": "blog about lame stuff",
  "content": "more yap"
}
```

---

## DELETE delete a blog

http://localhost:3000/api/blogs/1

Deletes blog with blog `id`. Fails if user is not the author of the blog.

### HEADERS

---

Authorization

{{accessToken}}

---

## PUT hide a blog as admin

http://localhost:3000/api/blogs/hide

Hides blog with `id`. Will fail if user does not have role `ADMIN`.

**Body** raw (json)

---

json

```
{
  "id": "2"
}
```

---

## comments

---

## top-level

---

**POST** create top-level comment

http://localhost:3000/api/blogs/1/comments

## HEADERS

---

**Authorization** {{accessToken}}

**Body** raw (json)

---

```
json
{
  "content": "this post sucks"
}
```

---

## GET get all top-level comments on a post

http://localhost:3000/api/blogs/1/comments?page=1&pageSize=1

## PARAMS

---

**page** 1

**pageSize** 1

---

## replies

---

## POST create a reply

http://localhost:3000/api/comments/1/replies

## HEADERS

---

**Authorization** {{accessToken}}

**Body** raw (json)

**Body** raw (json)

---

json

```
{  
  "content": "no it doesn't"  
}
```

---

**GET** retrieve paginated comments as a user/visitor

http://localhost:3000/api/comments/1/replies

---

## votes

---

**POST** register a comment vote

http://localhost:3000/api/comments/votes/

Adds a vote to blog with `blogId`. Upvotes if `upVote` is `true`, downvotes if `upVote` is `false`.

### HEADERS

---

**Authorization** `{{accessToken}}`

**Body** raw (json)

---

json

```
{  
  "upVote": false,  
  "commentId": 1  
}
```

---

**GET** get a comment

http://localhost:3000/api/comments/3

Retrieves information on comment with `id`.

---

## PUT update a comment

http://localhost:3000/api/comments/3

Updates comment with `id` with the following optional fields:

`content`

`attachment`

**Body** raw (json)

---

json

```
{  
  "content": "cool code",  
  "attachment": "image.png"  
}
```

---

## DELETE delete a comment

http://localhost:3000/api/comments/3

Deletes comment with `id`. Will fail if user is not the author of the comment.

---

## PUT hide a comment as admin

http://localhost:3000/api/comments/hide

Hides comment with `id`. Fails if user does not have role `ADMIN`.

---

## HEADERS

**Authorization**

{{accessToken}}



**Body** raw (json)

---

json

```
{  
  "id": "3"  
}
```

---

## POST report a comment

http://localhost:3000/api/comments/report.js

Posts a report for a comment with `commentId` with the following fields:

`description`

`screenshots` (optional)

**Body** raw (json)

---

json

```
{  
  "commentId": "3",  
  "description": "bad comment",  
  "screenshots": "image.png"  
}
```

---

## GET New Request

---

### POST execute code

http://localhost:3000/api/execute

Executes `code` in `language` with `stdin` as arguments.

**Body** raw (json)

---

**json**

```
{  
  "language": "python",  
  "code": "print(input())",  
  "stdin": "Hello World"  
}
```