API Documentation

GET /api/ping

Simple ping endpoint to check if the server is responsive.

```
Headers:
```

N/A

URL Parameters:

N/A

Request Body:

N/A

Responses:

Success (200):

```
JSON
{
    "status": "pong",
    "message": "Server is running"
}
Error (500):
JSON
{
    "status": "error",
    "message": "Server error"
```

POST /api/users/register

Create a new user. Requires admin privileges.

Headers:

}

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

N/A

Request Body:

Format: JSON Fields:

Nan	ne	Туре	Status	Description			
first	_name	string	Required	User's first name.			
last	_name	string	Required	User's last name.			
ema	ail	string	Required	User's email address (must be unique).			
con	tact_number	string	Required	User's contact phone number.			
use	rname	string	Required	Username (must be unique, min 4 chars).			
pas	sword	string	Required	User's password (min 8 chars).			
role	_id	integer	Required	ID of the role to assign.			
envi	ironment_id	integer	Required	ID of the environment to assign.			
Exar	mple:						
JSOI	N						
{	{						
"firs	"first_name": "John",						
"las	"last_name": "Doe",						
"em	"email": "john.doe@example.com",						
"co	"contact_number": "1234567890",						
"username": "johndoe",							
"pa	"password": "securePassword123",						
"rol	e_id": 2,						
"en	"environment_id": 1						
}							

Responses:

Success (201):

```
JSON
{
 "message": "User created successfully",
 "user": {
 "id": 1,
  "username": "johndoe",
  "email": "john.doe@example.com",
  "first_name": "John",
  "last_name": "Doe",
  "contact_number": "1234567890",
  "role": {
  "id": 2,
  "name": "Technician",
  "description": "Technical staff",
  "is_super_user": false
 },
  "environment": {
  "id": 1,
  "name": "Default",
  "description": "Default environment"
 },
  "is_deleted": false,
  "created_at": "2025-04-27T20:05:29Z",
 "updated_at": "2025-04-27T20:05:29Z"
}
}
Error (400):
JSON
{
```

```
"error": "Missing required fields | Username already exists | Email already exists | Password must be at
least 8 characters long | ..."
}
POST /api/users/login
Authenticate a user and receive a JWT.
Headers:
Name
             Purpose
                                 Status Example
Content-Type Specify content type Required application/json
URL Parameters:
N/A
Request Body:
Format: JSON Fields:
Name
          Type Status Description
username string Required Registered username.
password string Required User's password.
Example:
JSON
"username": "johndoe",
"password": "securePassword123"
}
Responses:
Success (200):
JSON
{
"access_token": "<JWT_TOKEN>"
}
```

Error (401):

```
JSON
{
    "error": "Invalid credentials"
}
```

POST /api/users/logout

Logs out the user. Invalidates the token if possible (depends on implementation, often relies on client-side token removal).

Headers:

Name Purpose

Status Example

Authorization Authentication token (optional, aids logging) Optional Bearer < JWT_TOKEN>

URL Parameters:

N/A

Request Body:

N/A

}

Responses:

```
Success (200):
```

```
JSON
{
    "message": "Successfully logged out",
    "status": "success"
```

Error: N/A (Typically designed to succeed even with invalid tokens)

GET /api/users

Get a list of users. Filters based on user role (Admin sees all, others see users in their environment).

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

Name Type Status Description

include_deleted boolean Optional Include soft-deleted users (Admin only). Default: false.

Request Body:

N/A

Responses:

```
Success (200):
```

```
JSON
[
{
  "id": 1,
  "username": "johndoe",
  "email": "john.doe@example.com",
  "first_name": "John",
  "last_name": "Doe",
  "contact_number": "1234567890",
  "role":{
   "id": 2,
   "name": "Technician",
   "description": "Technical staff",
   "is_super_user": false
 },
  "environment": {
   "id": 1,
   "name": "Default",
   "description": "Default environment"
 },
  "is_deleted": false,
```

```
"created_at": "2025-04-27T20:05:29Z"

"updated_at": "2025-04-27T20:05:29Z"

},

{...}

Error (500):

JSON

{
    "error": "Internal server error | Database error: <details>"
}
```

GET /api/users/batch

Get a paginated list of users in a compact format.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

Name	Гуре	Status	Description
page	integer	Optional	Page number. Default: 1.
per_page	integer	Optional	Items per page. Default: 50.
include_deleted	boolean	Optional	Include soft-deleted users (Admin only). Default: false.
role_id	integer	Optional	Filter by role ID.
environment_id	integer	Optional	Filter by environment ID (Admin only, otherwise uses user's environment).

Request Body:

N/A

Responses:

```
Success (200):
JSON
{
 "metadata": {
 "total_items": 5,
 "total_pages": 1,
 "current_page": 1,
 "per_page": 50
},
 "items": [
 {
  "id": 1,
  "username": "johndoe",
  "first_name": "John",
  "last_name": "Doe",
  "full_name": "John Doe",
  "email": "john.doe@example.com",
  "contact_number": "1234567890",
  "role": {
   "id": 2,
   "name": "Technician",
    "description": "Technical staff",
   "is_super_user": false
  },
  "environment": {
   "id": 1,
    "name": "Default",
   "description": "Default environment"
```

}

```
},
{...}

[]

Error (500):

JSON

{
  "error": "Internal server error",
  "details": "<error_details>"
}
```

GET /api/users/compact-list

Get a list of all users with essential details (no permissions).

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

Name Type Status Description

include_deleted boolean Optional Include soft-deleted users (Admin only). Default: false.

Request Body:

N/A

Responses:

Success (200):

```
JSON
[
{
    "id": 1,
    "username": "johndoe",
```

```
"first_name": "John",
  "last_name": "Doe",
  "full_name": "John Doe",
  "email": "john.doe@example.com",
  "contact_number": "1234567890",
  "role": {
   "id": 2,
   "name": "Technician",
   "description": "Technical staff",
   "is_super_user": false
 },
  "environment": {
   "id": 1,
   "name": "Default",
   "description": "Default environment"
 }
},
{ ... }
]
Error (500):
JSON
{
 "error": "Internal server error | Database error: <details>"
}
```

GET /api/users/byRole/{role_id}

Get users belonging to a specific role.

Headers:

Name Purpose Status Example

URL Parameters: Path Parameters: Name Type Status Description role_id integer Required ID of the role. **Request Body:** N/A **Responses:** Success (200): JSON ["id": 1, "username": "johndoe", "email": "john.doe@example.com", "first_name": "John", "last_name": "Doe", "contact_number": "1234567890", "role": { ... }, "environment": { ... } }, { ... }] Error (500): **JSON** {

"error": "Internal server error"

GET /api/users/byEnvironment/{environment_id}

Get users belonging to a specific environment.

```
Headers:
```

```
Name Purpose Status Example
```

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

```
Name Type Status Description
```

environment_id integer Required ID of the environment.

Request Body:

N/A

}

Responses:

```
Success (200):
```

```
JSON

[

{
    "id": 1,
    "username": "johndoe",
    "email": "john.doe@example.com",
    ...
},
    {...}

]

Error (403):
JSON
{
```

"error": "Unauthorized access to environment"

GET /api/users/search

Search for users based on criteria (Admin only).

Headers:

Name	Purpose	Status	Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

```
      Name
      Type
      Status
      Description

      id
      integer
      Optional Search by user ID.

      username
      string
      Optional Search by username (partial match).

      role_id
      integer
      Optional Search by role ID.

      environment_id
      integer
      Optional Search by environment ID.
```

Request Body:

N/A

{

Responses:

Success (200):

```
JSON
[

{
    "id": 1,
    "username": "johndoe",
    ... (full user details)
},
{...}

Error (403):
JSON
```

```
"error": "Unauthorized"
}
GET /api/users/{user_id}
Get details for a specific user.
Headers:
Name
              Purpose
                                  Status Example
Authorization Authentication token Required Bearer < JWT_TOKEN>
URL Parameters:
Path Parameters:
Name Type Status Description
user_id integer Required ID of the user.
Request Body:
N/A
Responses:
Success (200):
JSON
{
"id": 1,
"username": "johndoe",
"email": "john.doe@example.com",
"first_name": "John",
"last_name": "Doe",
"contact_number": "1234567890",
"role": { ... },
"environment": { ... },
"permissions": [ "perm1", "perm2", ...],
 "is_deleted": false,
```

"created_at": "...",

```
"updated_at": "..."
}
Error (404):

JSON
{
   "error": "User not found"
}
```

PUT /api/users/{user_id}

Update details for a specific user.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

Path Parameters:

Name Type Status Description

user_id integer Required ID of the user to update.

Request Body:

Format: JSON Fields:

Name	Туре	Status	Description
first_name	string	Optional	User's first name.
last_name	string	Optional	User's last name.
email	string	Optional	User's email address (must be unique).
contact_number	string	Optional	User's contact phone number.
password	string	Optional	New password (min 8 chars).
username	string	Optional	Username (Admin only, must be unique, min 4 chars).

```
role_id
                 integer Optional ID of the role to assign (Admin only).
environment_id integer Optional ID of the environment to assign (Admin only).
Example:
JSON
 "first_name": "Jonathan",
 "email": "jonathan.doe@example.com",
 "password": "newSecurePassword456"
}
Responses:
Success (200):
JSON
{
 "message": "User updated successfully",
 "user": { ... (updated user details) }
Error (400):
JSON
 "error": "Username already exists | Email already exists | Invalid role_id | ..."
}
```

DELETE /api/users/{user_id}

Soft delete a user and associated data.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

```
Name Type Status Description
user_id integer Required ID of the user to delete.
Request Body:
N/A
Responses:
Success (200):
JSON
{
 "message": "User and all associated data deleted successfully",
 "deleted_items": {
  "user": 1,
  "forms_created": 0,
  "form_submissions": 5,
  "answers_submitted": 25,
  "attachments": 3
}
}
Error (404):
JSON
 "error": "User not found"
}
```

GET /api/users/current

Get details of the currently authenticated user.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

```
Request Body:
N/A
Responses:
Success (200):
JSON
"id": 1,
"username": "johndoe",
"email": "john.doe@example.com",
 ... (full user details including permissions)
}
Error (404):
JSON
{
"error": "User not found"
}
POST /api/roles
Create a new role (Admin only).
Headers:
Name
             Purpose
                                  Status Example
Authorization Authentication token Required Bearer < JWT_TOKEN>
Content-Type Specify content type Required application/json
URL Parameters:
```

N/A

N/A

Request Body:

Format: JSON Fields:

```
Name
               Type
                       Status Description
               string
                       Required Name of the role (must be unique).
name
description
               string
                       Optional Description of the role.
is_super_user boolean Optional Whether this is a super user role (default: false).
Example:
JSON
{
 "name": "Editor",
 "description": "Can edit content",
 "is_super_user": false
}
Responses:
Success (201):
JSON
{
 "message": "Role created successfully",
 "role": {
 "id": 3,
  "name": "Editor",
  "description": "Can edit content",
  "is_super_user": false,
  "is_deleted": false,
 "created_at": "...",
 "updated_at": "..."
}
}
Error (400):
JSON
{
```

```
"error": "Name is required | Role name already exists"
}
```

GET /api/roles

Get a list of roles. Non-admins cannot see super user roles.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

N/A

Request Body:

N/A

Responses:

Success (200):

```
JSON

[

"id": 1,

"name": "Admin",

"description": "Full system administrator",

"is_super_user": true,
...

},

{

"id": 2,

"name": "Technician",

"description": "Technical staff",

"is_super_user": false,
```

```
}

Error (500):

JSON

{
  "error": "Internal server error"
}
```

GET /api/roles/batch

Get a paginated list of roles.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

Name	Туре	Status	Description
page	integer	Optional	Page number. Default: 1.
per_page	integer	Optional	Items per page. Default: 50.
include_deleted	boolean	Optional	Include soft-deleted roles (Admin only). Default: false.
is_super_user	boolean	Optional	Filter by super user status.
Request Rody:			

Request Body:

N/A

Responses:

Success (200):

```
JSON
{
    "metadata": { ... },
    "items": [
```

```
{
  "id": 1,
  "name": "Admin",
   ...
 },
 { ... }
]
Error (500):
JSON
{
 "error": "Internal server error",
 "details": "<error_details>"
}
GET /api/roles/{role_id}
Get details for a specific role.
Headers:
Name
              Purpose
                                  Status
                                            Example
Authorization Authentication token Required Bearer < JWT_TOKEN>
URL Parameters:
Path Parameters:
Name Type Status Description
role_id integer Required ID of the role.
Request Body:
N/A
Responses:
Success (200):
```

JSON

```
{
  "id": 2,
  "name": "Technician",
  "description": "Technical staff",
  "is_super_user": false,
  ...
}
Error (404):
JSON
{
  "error": "Role not found"
}
```

PUT /api/roles/{role_id}

Update a role (Admin only). Cannot modify the main Admin role.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

Path Parameters:

Name Type Status Description

role_id integer Required ID of the role to update.

Request Body:

Format: JSON Fields:

Name	Type	Status	Description
name	string	Optiona	l New name for the role (must be unique).
description	string	Ontional	New description for the role

```
is_super_user boolean Optional Set super user status.
```

```
Example:

JSON

{
    "description": "Staff performing technical duties"
}

Responses:
Success (200):

JSON

{
    "message": "Role updated successfully",
    "role": { ... (updated role details) }
}

Error (403):

JSON

{
    "error": "Cannot modify the main administrator role"
```

DELETE /api/roles/{role_id}

Soft delete a role (Admin only). Cannot delete the main Admin role or roles with active users.

Headers:

}

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

Name Type Status Description

role_id integer Required ID of the role to delete.

```
Request Body:
N/A
Responses:
Success (200):
JSON
{
 "message": "Role and associated permissions deleted successfully"
}
Error (400):
JSON
{
 "error": "Cannot delete role with active users",
 "role": { ... },
 "active_users": {
 "count": 2,
 "users": [{...}, {...}]
},
 "suggestion": "Please reassign or deactivate these users before deleting this role"
}
```

DELETE /api/roles/{role_id}/permissions/{permission_id}

Remove a specific permission from a role (Admin only). Cannot modify the main Admin role.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

Name Type Status Description

```
integer Required ID of the role.
role_id
permission_id integer Required ID of the permission to remove.
Request Body:
N/A
Responses:
Success (200):
JSON
{
"message": "Permission removed from role successfully"
}
Error (400):
JSON
{
"error": "Failed to remove permission from role"
}
POST /api/forms
Create a new form.
Headers:
Name
             Purpose
                                 Status Example
Authorization Authentication token Required Bearer < JWT_TOKEN>
Content-Type Specify content type Required application/json
URL Parameters:
N/A
Request Body:
Format: JSON Fields:
Name
                    Status Description
           Type
```

string Required Title of the form.

title

```
description string Optional Description of the form.
is_public
            boolean Optional Whether the form is public (default: false).
                                ID of the user to assign as creator (Admin only). Defaults to current
             integer Optional
user_id
Example:
JSON
{
 "title": "Daily Safety Check",
 "description": "Checklist for daily equipment safety",
 "is_public": false
}
Responses:
Success (201):
JSON
{
 "message": "Form created successfully",
 "form": {
 "id": 1,
  "title": "Daily Safety Check",
  "description": "Checklist for daily equipment safety",
  "is_public": false,
  "created_by": { ... },
  "questions": [],
  "is_deleted": false,
  "created_at": "...",
  "updated_at": "..."
 },
 "form_creator": "current_username"
}
```

```
Error (400):

JSON
{
    "error": "Missing required fields | Form title already exists | ..."
}
```

GET /api/forms

Get a list of forms accessible to the user.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

N/A

Request Body:

N/A

Responses:

Success (200):

```
JSON
[

| "id": 1,
| "title": "Daily Safety Check",
| "description": "...",
| "is_public": false,
| "created_by": { ... },
| "questions": [ { ... }, ... ],
| ... },
| ... }
```

```
]
Error (500):
JSON
{
  "error": "Internal server error"
}
```

GET /api/forms/batch

Get a paginated list of forms with filtering options.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

Success (200):

JSON

{

Name	Туре	Status	Description		
page	integer	Optional	Page number. Default: 1.		
per_page	integer	Optional	Items per page. Default: 50.		
include_deleted	boolean	Optional	Include soft-deleted forms (Admin only). Default: false.		
is_public	boolean	Optional	Filter by public status.		
user_id	integer	Optional	Filter by creator user ID.		
environment_id	integer	Optional	Filter by environment ID (Admin only).		
only_editable	boolean	Optional	Return only forms editable by the user. Default: false.		
Request Body:					
N/A					
Responses:	Responses:				

```
"metadata": { ... },
 "items": [
  {
   "id": 1,
   "title": "Daily Safety Check",
   ... (compact form details)
  },
  { ... }
]
}
Error (500):
JSON
 "error": "Internal server error",
 "details": "<error_details>"
}
GET /api/forms/{form_id}
```

Get details for a specific form.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

Name Type Status Description

form_id integer Required ID of the form.

Request Body:

N/A

Responses:

```
Success (200):
JSON
{
 "id": 1,
 "title": "Daily Safety Check",
 "description": "...",
 "is_public": false,
 "created_by": { ... },
 "questions": [
  {
    "id": 1,
    "form_question_id": 101,
    "text": "Is equipment powered off?",
    "type": "checkbox",
    "order_number": 1,
    "remarks": null,
    "possible_answers": [{ "id": 1, "form_answer_id": 201, "value": "Yes" }, { "id": 2, "form_answer_id":
202, "value": "No" }]
  },
  { ... }
 ],
 "is_deleted": false,
 "created_at": "...",
 "updated_at": "..."
}
Error (404):
JSON
{
 "error": "Form not found"
}
```

POST /api/forms/{form_id}/questions

Add multiple questions to an existing form.

Headers:

```
Name Purpose Status Example
```

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

Path Parameters:

```
Name Type Status Description
```

form_id integer Required ID of the form to add questions to.

Request Body:

Format: JSON Fields:

Name Type Status Description

questions array Required List of question objects to add.

Example:

JSON

{

```
JSON
{
    "questions": [
        { "question_id": 15, "order_number": 3 },
        { "question_id": 22, "order_number": 4 }
    ]
}
Responses:
Success (200):
```

"message": "Questions added successfully",

```
"form": { ... (updated form details including new questions) }

Error (400):

JSON

{
  "error": "Questions are required | Invalid question ID | ..."
}
```

POST /api/form-submissions

Submit answers for a specific form.

Headers:

Name	Purpose	Status	Example
Authorization	token	,	Bearer < JWT_TOKEN>
Content-Type	Specify content type	Required	application/json or multipart/form-data if signatures are included

URL Parameters:

N/A

Request Body:

Format: JSON (potentially multipart/form-data) Fields:

```
      Name
      Type
      Status
      Description

      form_id
      integer
      Required
      ID of the form being submitted.

      submitted_at string
      Optional
      Timestamp of submission in ISO format (YYYY-MM-DDTHH:MM:SS). Defaults to server time.

      answers
      array
      Required
      List of answers submitted.

      Example:
      JSON

      {
      "form_id": 1,
```

```
"answers": [
 {
   "question_id": 5,
  "answer_text": "Yes",
  "question_type_text": "checkbox"
 },
   "question_id": 6,
  "answer_text": "Checked all safety guards.",
  "question_type_text": "text"
 },
 {
  "question_id": 7,
  "answer_text": "Signature data or reference",
  "question_type_text": "signature",
  "is_signature": true
 }
]
}
Responses:
Success (201):
JSON
{
 "message": "Form submitted successfully",
 "submission": {
 "id": 101,
  "form_id": 1,
  "submitted_by": "current_username",
  "submitted_at": "...",
```

```
"answers_submitted": [ ... ],

"attachments": [ ... ],

...
}

Error (400):

JSON
{
    "error": "form_id is required | Invalid answer data | ..."
}
```

POST /api/answers-submitted

Create a single submitted answer record. Typically used internally by form submission.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

N/A

Request Body:

Format: JSON Fields:

Name	Туре	Status	Description
form_submission_id	integer	Required	ID of the parent form submission.
question_text	string	Required	Text of the question at the time of submission.
question_type_text	string	Required	Type of the question (e.g., 'text', 'table').
answer_text	string	Required	Answer provided by the user.
column	integer	Conditional	Column index (required if question_type_text is 'table').

```
integer Conditional Row index (required if question_type_text is 'table').
row
cell_content
                     string Optional
                                        Content for table cells.
Example:
JSON
 "form_submission_id": 101,
 "question_text": "Is equipment powered off?",
 "question_type_text": "checkbox",
 "answer_text": "Yes"
}
Responses:
Success (201):
JSON
{
 "message": "Answer submitted successfully",
 "answer_submitted": {
 "id": 501,
  "form_submission_id": 101,
  "question": "Is equipment powered off?",
  "question_type": "checkbox",
  "answer": "Yes",
  "column": null,
 "row": null,
  "cell_content": null,
}
}
Error (400):
```

JSON

```
{
    "error": "Missing required fields | Column and row are required for table-type questions | ..."
}
```

POST /api/answers-submitted/bulk

Create multiple submitted answer records for a single form submission. Typically used internally.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

N/A

Request Body:

Format: JSON Fields:

```
Name Type Status Description
```

form_submission_id integer Required ID of the parent form submission.

submissions array Required List of submitted answers.

Example:

```
JSON
{
    "form_submission_id": 101,
    "submissions": [
          { "question_text": "Q1?", "question_type_text": "text", "answer_text": "Ans1" },
          { "question_text": "Q2?", "question_type_text": "table", "answer_text": "CellVal", "column": 0, "row": 1, "cell_content": "Cell Value" }
    ]
}
```

Responses:

Success (201):

```
JSON
{
    "message": "Answers submitted successfully",
    "submissions": [{...}, {...}]
}
Error (400):
JSON
{
    "error": "Missing required fields: form_submission_id and submissions | Each submission must contain required fields | ..."
}
```

POST /api/attachments

Upload an attachment (file or signature) linked to a form submission.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required multipart/form-data

URL Parameters:

N/A

Request Body:

Format: Form Data Fields:

Name	Туре	Status	Description
form_submission_id	integer	Required	ID of the form submission to link to.
file	file	Required	The file to upload.
is_signature	boolean	Optional	Set to 'true' if the file is a signature image. Default: false.
answer_submitted_id	integer	Conditional	ID of the AnswerSubmitted record this signature relates to (if is_signature=true).

```
signature_position
                      string
                               Optional
                                           Position/identifier for the signature (e.g., 'Completed By').
signature_author
                      string
                               Optional
                                           Name of the person who signed.
Example: N/A (Form data)
Responses:
Success (201):
JSON
 "message": "Attachment created successfully",
 "attachment": {
  "id": 301,
  "form_submission_id": 101,
  "filename": "signature_john_doe.png",
  "file_path": "uploads/submission_101/signature_john_doe_timestamp.png",
  "file_type": "image/png",
  "is_signature": true,
  "answer_submitted_id": 505,
  "signature_position": "Completed By",
  "signature_author": "John Doe",
}
}
Error (400):
JSON
 "error": "form_submission_id is required | No file provided | Invalid file type | ..."
}
```

POST /api/attachments/bulk

Upload multiple attachments for a single form submission.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required multipart/form-data

URL Parameters:

N/A

Request Body:

Format: Form Data Fields:

Name	Туре	Status	Description
form_submission_id	integer	Required	ID of the form submission.
file <n></n>	file	Required	File upload field (e.g., file1, file2).
is_signature <n></n>	boolean	Optional	Indicates if file <n> is a signature.</n>
answer_submitted_id <n></n>	integer	Conditional	Answer ID for signature <n>.</n>
signature_position <n></n>	string	Optional	Position for signature <n>.</n>
signature_author <n></n>	string	Optional	Author for signature <n>.</n>
Example: N/A (Form data with	multiple f	ile fields like	file1, file2, etc.)

Responses:

}

```
Success (201):
```

```
JSON
{
 "message": "Attachments created successfully",
"attachments": [\{\ldots\},\{\ldots\}]
}
Error (400):
JSON
{
```

"error": "form_submission_id is required | No files provided | ..."

GET /api/attachments/{attachment_id}

Download a specific attachment file.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

Name Type Status Description

attachment_id integer Required ID of the attachment to download.

Request Body:

N/A

Responses:

Success (200): File content (e.g., image/png, application/pdf) Error (404):

JSON

"error": "File not found"

}

GET /api/export/form/{form_id}

Export a form structure (questions, possible answers) to PDF or DOCX.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

Name Type Status Description

form_id integer Required ID of the form to export.

Query Parameters:

Name	Туре	Status	Description
format	string	Optional	Export format ('PDF' or 'DOCX'). Default: PDF.
page_size	string	Optional	Page size ('A4', 'LETTER', 'LEGAL'). Default: LETTER.
margin_top	float	Optional	Top margin in inches. Default: 1.0.
margin_bottom	float	Optional	Bottom margin in inches. Default: 1.0.
margin_left	float	Optional	Left margin in inches. Default: 1.0.
margin_right	float	Optional	Right margin in inches. Default: 1.0.
line_spacing	float	Optional	Line spacing multiplier. Default: 1.15.
font_size	integer	Optional	Base font size in points. Default: 12.
logo_path	string	Optional	Server path to a logo image (PNG/JPG).
signature_count	integer	Optional	Number of signature lines (1-5). Default: 2.
signature <n>_title</n>	string	Optional	Title for signature line N (e.g., 'signature1_title').
signature <n>_name</n>	string	Optional	Pre-filled name for signature line N.
signature <n>_date</n>	boolean	Optional	Include date field for signature line N. Default: true.
signature_space_before	float	Optional	Space before signature section (points). Default: 20.
signature_space_betweer	ı float	Optional	Space between signatures (points). Default: 10.
signature_space_date	float	Optional	Space after date field (points). Default: 5.
signature_space_after	float	Optional	Space after signature section (points). Default: 20.

Request Body:

N/A

Responses:

Success (200): File content (application/pdf or application/vnd.openxmlformats-officedocument.wordprocessingml.document) **Error (400):**

JSON

{

[&]quot;error": "Invalid format | Logo file not found | Error generating export: <details>"

GET /api/export/formats

Get the list of supported export formats.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

N/A

Request Body:

N/A

Responses:

Success (200):

```
JSON
{
   "formats": ["PDF", "DOCX"],
   "default": "PDF"
}
```

Error: N/A

GET /api/export/parameters

Get details about available export formatting parameters.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

N/A

Request Body:

N/A

Responses: Success (200): **JSON** { "parameters": { "page_size": { "description": "...", "values": ["A4", "LETTER", "LEGAL"], "default": "LETTER" }, "margin_top": { "description": "...", "range": [0.1, 3.0], "default": 1.0 }, ... (all parameters described) } } Error: N/A

GET /api/export/form/{form_id}/preview-params

Get formatting parameters and example URLs for exporting a specific form.

Headers:

Name **Purpose** Example Status

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

Name Type Status Description

form_id integer Required ID of the form.

Query Parameters: Accepts same query parameters as /api/export/form/{form_id} to show current values

Request Body:

N/A

Responses:

Success (200):

JSON

{

```
"form_info": { "id": 1, "title": "...", "questions_count": 5 },
 "current_parameters": { "format": "PDF", "page_size": "LETTER", ... },
 "available_parameters": { ... (details of all params) },
 "example_urls": { "minimal": "...", "with_basic_formatting": "...", "complete": "..." },
 "notes": [ ... ]
}
Error (404):
JSON
 "error": "Form not found"
}
GET /api/health/ping
Simple check if the API is responsive.
Headers:
N/A
URL Parameters:
N/A
Request Body:
N/A
Responses:
```

Success (200):

JSON "status": "pong", "message": "Server is responsive"

Error (500):

JSON

}

```
{
  "status": "error",
  "message": "Server error"
}
```

GET /api/health/status

Get detailed health status including database connectivity.

Headers:

N/A

URL Parameters:

N/A

Request Body:

N/A

}

Responses:

Success (200): # or 503 if unhealthy

```
JSON
{
    "server_status": "ok",
    "database_status": "ok",
    "timestamp": "...",
    "health_status": "healthy"
}
Error (500):
JSON
{
    "status": "error",
    "message": "Server error"
```

POST /api/cmms-configs

Create a new JSON configuration file in the 'configs' subfolder (Admin only).

Headers:

```
Name
              Purpose
                                   Status Example
Authorization Authentication token Required Bearer < JWT_TOKEN>
Content-Type Specify content type Required application/json
URL Parameters:
N/A
Request Body:
Format: JSON Fields:
Name Type Status Description
filename string Required Filename ending in .json.
content object Required JSON content for the file.
Example:
JSON
{
 "filename": "settings.json",
 "content": { "theme": "dark", "notifications": true }
}
Responses:
Success (201):
JSON
 "message": "Configuration file created successfully",
 "config": {
  "filename": "settings.json",
  "path": "configs/settings.json",
  "content": { "theme": "dark", "notifications": true },
```

```
"created_at": "...",

"updated_at": "..."
}

Error (400):

JSON
{

"error": "Missing required fields | Only JSON files are supported | Filename already exists | ..."
}
```

POST /api/cmms-configs/upload

Upload a configuration file (places it in the 'configs' subfolder, Admin only).

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required multipart/form-data

URL Parameters:

N/A

Request Body:

Format: Form Data Fields:

Name Type Status Description

file file Required The configuration file to upload.

Example: N/A (Form data)

Responses:

Success (201):

JSON

{

"message": "Configuration file uploaded successfully",

"config": { ... (details of the uploaded config file) }

```
Frror (400):

JSON
{
    "error": "No file provided | No selected file | File type not allowed | ..."
}
```

GET /api/cmms-configs/files

List all files within the main 'uploads' directory and its subdirectories (e.g., configs, submission attachments).

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

N/A

Request Body:

N/A

Responses:

Success (200):

```
JSON

{
    "message": "Files retrieved successfully",
    "files": [
    {
        "filename": "settings.json",
        "path": "configs/settings.json",
        "full_path": "/path/to/app/uploads/configs/settings.json",
        "size": 123,
        "size_formatted": "123 B",
```

```
"mime_type": "application/json",
   "created_at": "...",
   "modified_at": "...",
   "directory": "configs"
  },
  {
   "filename": "report.pdf",
   "path": "submission_101/report.pdf",
   "full_path": "/path/to/app/uploads/submission_101/report.pdf",
   "size": 102400,
   "size_formatted": "100.0 KB",
   "mime_type": "application/pdf",
   "created_at": "...",
   "modified_at": "...",
   "directory": "submission_101"
  },
  { ... }
],
 "total_files": 2
}
Error (500):
JSON
{
 "error": "Internal server error"
}
```

GET /api/cmms-configs/file/{filepath}

Download a specific file from the 'uploads' directory structure using its relative path.

Headers:

Authorization Authentication token Required Bearer < JWT_TOKEN> **URL Parameters: Path Parameters:** Name Type Status Description filepath string Required Relative path to the file within the uploads directory (e.g., 'configs/settings.json' or 'submission_101/report.pdf'). **Request Body:** N/A **Responses:** Success (200): File content Error (404): **JSON** { "error": "File not found | Invalid path" } **GET /api/cmms-configs/{filename}** Load the content of a configuration file from the 'configs' subfolder. **Headers:** Name **Purpose** Status Example Authorization Authentication token Required Bearer < JWT_TOKEN> **URL Parameters: Path Parameters:** Name Type Status Description filename string Required Name of the config file in the 'configs' directory. **Request Body:** N/A **Responses:**

Status Example

Name

Purpose

```
Success (200):

JSON

{

"filename": "settings.json",

"path": "configs/settings.json",

"file_type": "application/json",

"content": { "theme": "dark", "notifications": true },

"created_at": "...",

"updated_at": "..."
}

Error (404):

JSON

{

"error": "Configuration file not found"
}
```

PUT /api/cmms-configs/configs/{filename}

Update the content of a JSON configuration file in the 'configs' subfolder (Admin only).

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

Path Parameters:

Name Type Status Description

filename string Required Name of the config file to update.

Request Body:

Format: JSON Fields:

Name Type Status Description

content object Required New JSON content for the file.

```
Example:

JSON

{
    "content": { "theme": "light", "notifications": false, "new_setting": 123}
}

Responses:
Success (200):

JSON

{
    "message": "Configuration file updated successfully",
    "config": { ... (updated config details) }
}

Error (400):

JSON

{
```

PUT /api/cmms-configs/{filename}/rename

Rename a configuration file within the 'configs' subfolder (Admin only).

"error": "Content is required | File is not a JSON file | Error updating file | ..."

Headers:

}

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

Path Parameters:

Type Status Description Name filename string Required Current name of the config file. **Request Body:** Format: JSON Fields: Name Type Status Description new_filename string Required New filename (must end in .json). Example: **JSON** { "new_filename": "app_settings.json" } Responses: Success (200): **JSON** "message": "Configuration file renamed successfully", "config": { ... (details with new filename) } } Error (400): **JSON** {

"error": "New filename is required | New filename must end with .json | File not found | New filename

DELETE /api/cmms-configs/{filename}

Delete a configuration file from the 'configs' subfolder (Admin only).

Headers:

}

already exists | ..."

```
Authorization Authentication token Required Bearer < JWT_TOKEN>
URL Parameters:
Path Parameters:
Name
         Type Status Description
filename string Required Name of the config file to delete.
Request Body:
N/A
Responses:
Success (200):
JSON
{
"message": "Configuration file deleted successfully"
}
Error (404):
JSON
{
"error": "Configuration file not found"
}
GET /api/cmms-configs/check
Check if the main configuration file exists in the 'configs' subfolder.
Headers:
Name
             Purpose
                                  Status
                                           Example
Authorization Authentication token Required Bearer < JWT_TOKEN>
URL Parameters:
```

Status Example

Name

N/A

Request Body:

Purpose

```
N/A
```

```
Responses:
Success (200):
JSON
 "exists": true,
 "metadata": {
  "filename": "cmms_config.json",
 "path": "configs/cmms_config.json",
 "size": 512,
 "modified_at": "..."
},
 "message": "Configuration file found in configs folder"
}
or exists: false
Error (500):
JSON
 "error": "Internal server error",
 "details": "<error_details>"
}
```

GET /api/export_submissions/{submission_id}/pdf

Export a specific form submission as a PDF document.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

Name Type Status Description

submission_id integer Required ID of the form submission to export.

Request Body:

N/A

Responses:

Success (200): File content (application/pdf) Error (400):

JSON

{

"error": "Submission not found | Error generating PDF | Unauthorized access"

}

POST /api/export_submissions/{submission_id}/pdf/logo

Export a form submission as PDF with custom header image and signature formatting.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required multipart/form-data

URL Parameters:

Path Parameters:

Name Type Status Description

submission_id integer Required ID of the form submission.

Request Body:

Format: Form Data Fields:

Name	Type	Status	Description
header_image	file	Optional	Image file (PNG/JPG/JPEG) for the header.
header_opacity	float	Optional	Opacity of the header image (0-100). Default: 100.
header_size	float	Optional	Size percentage for header image (maintains aspect ratio). Default: original size (100%).

header_width float Optional Explicit width in pixels for header image (overrides header_size). Explicit height in pixels for header image (overrides float Optional header_height Alignment of header image ('left', 'center', 'right'). Default: string Optional header_alignment float Optional Size percentage for signature images. Default: 100. signatures_size signatures_alignment string Optional Layout for signatures ('vertical', 'horizontal'). Default: vertical. **Example:** N/A (Form data) **Responses:** Success (200): File content (application/pdf) Error (400): **JSON** { "error": "Submission not found | Header image must be PNG or JPEG | Header opacity must be a number | ..."

GET /api/counts

Get counts for all entity types accessible to the user.

Headers:

}

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

Name Type Status Description

include_deleted boolean Optional Include counts of soft-deleted items (Admin only). Default: false.

Request Body:

N/A

Responses:

Success (200):

```
JSON
{
 "users": 15,
 "roles": 4,
 "permissions": 50,
 "environments": 3,
 "question_types": 8,
 "questions": 120,
 "answers": 35,
 "forms": 25,
 "form_submissions": 500,
 "answers_submitted": 2500,
 "attachments": 150,
 "role_permissions": 100,
 "form_questions": 150,
 "form_answers": 60
}
Error (500):
JSON
 "error": "Internal server error"
}
```

GET /api/counts/{entity}

Get the count for a specific entity type (e.g., users, forms, roles).

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

```
Path Parameters:
```

Name Type Status Description

entity string Required The entity type plural name (e.g., 'users', 'forms').

Query Parameters:

Name Type Status Description

include_deleted boolean Optional Include count of soft-deleted items (Admin only). Default: false.

Request Body:

N/A

Responses:

```
Success (200):
```

```
JSON
{
    "entity": "users",
    "count": 15,
    "include_deleted": false
}
Error (500):
JSON
{
    "error": "Internal server error"
```

GET /api/entity_basic/basic

Get basic representations (id, name/title) of all entity types (Admin only).

Headers:

}

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Query Parameters:

```
Name
                 Type
                          Status Description
                 integer Optional Page number. Default: 1.
page
                 integer Optional Items per page. Default: 20.
per_page
include_deleted boolean Optional Include soft-deleted items. Default: false.
Request Body:
N/A
Responses:
Success (200):
JSON
{
 "metadata": { ... },
 "items": [
 { "id": 1, "name": "Admin", "type": "roles" },
 { "id": 1, "title": "Daily Safety Check", "type": "forms" },
 { ... }
]
}
Error (403):
JSON
{
 "error": "Unauthorized. Admin access required."
}
```

GET /api/entity_basic/{entity_type}/basic

Get basic representations (id, name/title) for a specific entity type.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

```
URL Parameters:
```

Path Parameters:

```
Name Type Status Description
```

entity_type string Required Entity type (e.g., 'users', 'forms').

Query Parameters:

Name	Туре	Status	Description
page	integer	Optional	Page number. Default: 1.
per_page	integer	Optional	Items per page. Default: 20 (max 100).
include_deleted	boolean	Optional	Include soft-deleted items (Admin only). Default: false.

Request Body:

N/A

}

Responses:

```
Success (200):
```

```
JSON

{
    "metadata": { ... },
    "items": [
        { "id": 1, "name": "Daily Safety Check" },
        { "id": 2, "name": "Monthly Maintenance Report" },
        { ... }
    ]
}

Error (400):
JSON
```

"error": "Invalid entity type | Invalid pagination parameters"

GET /api/entity_basic/{entity_type}/{entity_id}/basic

Get basic representation (id, name/title) for a specific entity instance.

Headers:

```
Name Purpose Status Example
```

Authorization Authentication token Required Bearer < JWT_TOKEN>

URL Parameters:

Path Parameters:

```
Name Type Status Description

entity_type string Required Entity type (e.g., 'users', 'forms').

entity_id integer Required ID of the entity.
```

Query Parameters:

```
Name Type Status Description
```

include_deleted boolean Optional Include if soft-deleted (Admin only). Default: false.

Request Body:

N/A

}

Responses:

```
Success (200):
```

```
JSON
{
    "id": 1,
    "name": "Daily Safety Check"
}
Error (404):
JSON
{
    "error": "Entity not found"
```

POST /api/entity_basic/{entity_type}/basic/batch

Get basic representations for multiple entities of the same type by their IDs.

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

Path Parameters:

Name Type Status Description

entity_type string Required Entity type (e.g., 'users', 'forms').

Query Parameters:

Name Type Status Description

include_deleted boolean Optional Include soft-deleted items (Admin only). Default: false.

Request Body:

Format: JSON Fields:

Name Type Status Description

ids array Required List of entity IDs.

Example:

```
JSON
{
    "ids": [1, 5, 12]
}
```

Responses:

Success (200):

```
JSON
{
"items":[
```

```
{ "id": 1, "name": "Daily Safety Check" },

{ "id": 5, "name": "Incident Report" },

{ "id": 12, "name": "Equipment Calibration" }

}

Error (400):

JSON

{

"error": "Invalid request format. Expected 'ids' list in JSON body"
}
```

POST /api/reports/generate

Generate a customizable report in XLSX format. Requires specific roles (Admin, Site Manager, Supervisor).

Headers:

Name Purpose Status Example

Authorization Authentication token Required Bearer < JWT_TOKEN>

Content-Type Specify content type Required application/json

URL Parameters:

N/A

Request Body:

Format: JSON Fields:

Name	Туре	Status	Description
report_type	string	Required	Type of report (e.g., 'users', 'forms', 'submissions', 'all').
columns	array	Optional	List of column names to include. Defaults used if omitted.
filters	object	Optional	Key-value pairs for filtering data (e.g., {"environment_id": 1, "role_name": "Technician"}).
sort_by	string	Optional	Column name to sort by.

```
sort_order
                 string Optional Sort order ('asc' or 'desc'). Default: 'asc'.
environment_id integer Optional Specify environment ID (used if filters don't contain it).
Example:
JSON
{
 "report_type": "submissions",
 "columns": ["id", "form_title", "submitted_by", "submitted_at"],
 "filters": {
  "form_id": 5,
  "submitted_at_after": "2025-04-01T00:00:00Z"
 },
 "sort_by": "submitted_at",
 "sort_order": "desc"
}
Responses:
Success (200): File content (application/vnd.openxmlformats-officedocument.spreadsheetml.sheet)
Error (400):
JSON
{
 "error": "Missing required report parameter: report_type | Invalid report type | Invalid column | ..."
}
```

This includes documentation for the main endpoints identified in the provided files. Additional endpoints related to permissions, environments, question types, answers, form questions, form answers, and role permissions follow similar patterns and are largely administrative or relate to setting up the structure of forms. Their specific parameters and responses can be inferred from the corresponding view files (permission_views.py, environment_views.py, etc.).