

Report Generation API Documentation

Overview

The Report Generation API allows users to generate custom reports in various formats (XLSX, CSV, PDF, DOCX, PPTX) for different entities in the system. This documentation provides all possible request bodies organized by individual entities and entity combinations.

Base Endpoint

POST /reports/generate

Authentication

All endpoints require JWT authentication. Include a valid JWT token in the Authorization header:

Authorization: Bearer <your_token>

Common Request Parameters

Parameter	Type	Required	Description
report_type	string or array	Yes	Entity or entities to include in the report
output_format	string	No	Output format: "xlsx", "csv", "pdf", "docx", "pptx" (default: "xlsx")
columns	array	No	Specific columns to include (defaults to predefined columns)
filters	array	No	Filters to apply to the data
sort_by	array	No	Sorting options for the data
filename	string	No	Custom filename (without extension)
report_title	string	No	Custom report title
template_id	integer	No	ID of a saved report template to use
include_data_table_in_pptx	boolean	No	Include data table in PPTX (default: false)

Parameter	Type	Required	Description
charts	array	No	Custom chart configurations

1. USERS

Available Columns

id, username, first_name, last_name, email, contact_number, role_id, environment_id,

role.name, role.description, role.is_super_user, environment.name, environment.description,

created_at, updated_at, is_deleted, deleted_at

Default Columns

id, username, first_name, last_name, email, contact_number, role.name, environment.name, created_at

Request Bodies

Basic Excel Report

```
{
  "report_type": "users",
  "output_format": "xlsx"
}
```

CSV Report

```
{
  "report_type": "users",
  "output_format": "csv"
}
```

PDF Report

```
{  
  "report_type": "users",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "users",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "users",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "users",  
  "filters": [  
    {"field": "environment.name", "operator": "eq", "value": "Production"},  
    {"field": "role.name", "operator": "neq", "value": "admin"}  
  ],  
  "sort_by": [  
    {"field": "username", "direction": "asc"}  
  ]  
}
```

Custom Columns Report

```
{  
  "report_type": "users",  
  "columns": [  
    "id", "username", "email", "role.name", "environment.name"  
  ]  
}
```

Users with Charts

```
{
  "report_type": "users",
  "output_format": "pdf",
  "report_title": "User Distribution Analysis",
  "charts": [
    {
      "type": "bar",
      "column": "role.name",
      "title": "Users by Role"
    },
    {
      "type": "pie",
      "column": "environment.name",
      "title": "Users by Environment"
    },
    {
      "type": "line",
      "column": "created_at",
      "title": "User Creation Timeline"
    }
  ]
}
```

Users with Custom Filename

```
{  
  "report_type": "users",  
  "filename": "active_users_export",  
  "report_title": "Active Users Report"  
}
```

2. ROLES

Available Columns

id, name, description, is_super_user, created_at, updated_at, is_deleted, deleted_at

Default Columns

id, name, description, is_super_user, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "roles",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "roles",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "roles",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "roles",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "roles",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "roles",  
  "filters": [  
    {"field": "is_super_user", "operator": "eq", "value": false}  
  ],  
  "sort_by": [  
    {"field": "name", "direction": "asc"}  
  ]  
}
```

Roles with Charts

```
{
```

```
"report_type": "roles",
"output_format": "pdf",
"report_title": "Roles Analysis",
"charts": [
  {
    "type": "pie",
    "column": "is_super_user",
    "title": "Roles by Superuser Status"
  },
  {
    "type": "bar",
    "column": "name",
    "title": "Role Distribution"
  }
]
```

3. PERMISSIONS

Available Columns

id, name, action, entity, description, created_at, updated_at, is_deleted, deleted_at

Default Columns

id, name, action, entity, description

Request Bodies

Basic Excel Report

```
{  
  "report_type": "permissions",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "permissions",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "permissions",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "permissions",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "permissions",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "permissions",  
  "filters": [  
    {"field": "action", "operator": "eq", "value": "create"}  
  ],  
  "sort_by": [  
    {"field": "entity", "direction": "asc"}  
  ]  
}
```

Permissions with Charts

```
{  
  "report_type": "permissions",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "pie",  
      "column": "action",  
      "title": "Permissions by Action Type"  
    },  
    {  
      "type": "bar",  
      "column": "entity",  
      "title": "Permissions by Entity"  
    }  
  ]  
}
```

4. ROLE_PERMISSIONS

Available Columns

id, role_id, permission_id, role.name, role.description, role.is_super_user,
permission.name, permission.action, permission.entity, permission.description,
created_at, updated_at, is_deleted, deleted_at

Default Columns

id, role_id, permission_id, role.name, permission.name, permission.action,
permission.entity

Request Bodies

Basic Excel Report

```
{  
  "report_type": "role_permissions",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "role_permissions",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "role_permissions",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "role_permissions",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "role_permissions",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "role_permissions",  
  "filters": [  
    {"field": "role.name", "operator": "eq", "value": "site_manager"}  
  ],  
  "sort_by": [  
    {"field": "permission.action", "direction": "asc"}  
  ]  
}
```

Role Permissions with Charts

```
{  
  "report_type": "role_permissions",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "bar",  
      "column": "role.name",  
      "title": "Permissions Count by Role"  
    },  
    {  
      "type": "pie",  
      "column": "permission.action",  
      "title": "Permission Actions Distribution"  
    }  
  ]  
}
```

5. ENVIRONMENTS

Available Columns

id, name, description, created_at, updated_at, is_deleted, deleted_at

Default Columns

id, name, description, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "environments",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "environments",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "environments",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "environments",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "environments",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Sorted Report

```
{  
  "report_type": "environments",  
  "sort_by": [  
    {"field": "created_at", "direction": "desc"}  
  ]  
}
```


Environments with Charts

```
{  
  "report_type": "environments",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "bar",  
      "column": "name",  
      "title": "Environment Overview"  
    }  
  ]  
}
```

6. QUESTION_TYPES

Available Columns

id, type, created_at, updated_at, is_deleted, deleted_at

Default Columns

id, type, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "question_types",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "question_types",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "question_types",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "question_types",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "question_types",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Question Types with Charts

```
{  
  "report_type": "question_types",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "pie",  
      "column": "type",  
      "title": "Question Type Distribution"  
    }  
  ]  
}
```

7. QUESTIONS

Available Columns

id, text, question_type_id, is_signature, remarks, question_type.type,
created_at, updated_at, is_deleted, deleted_at

Default Columns

id, text, question_type.type, is_signature, remarks, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "questions",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "questions",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "questions",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "questions",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "questions",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "questions",  
  "filters": [  
    {"field": "question_type.type", "operator": "eq", "value": "text"},  
    {"field": "is_signature", "operator": "eq", "value": false}  
  ],  
  "sort_by": [  
    {"field": "text", "direction": "asc"}  
  ]  
}
```

Questions with Charts

```
{  
  "report_type": "questions",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "pie",  
      "column": "question_type.type",  
      "title": "Questions by Type"  
    },  
    {  
      "type": "bar",  
      "column": "is_signature",  
      "title": "Signature vs Non-Signature Questions"  
    }  
  ]  
}
```

8. ANSWERS

Available Columns

id, value, remarks, created_at, updated_at, is_deleted, deleted_at

Default Columns

id, value, remarks, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "answers",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "answers",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "answers",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "answers",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "answers",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Sorted Report

```
{  
  "report_type": "answers",  
  "sort_by": [  
    {"field": "value", "direction": "asc"}  
  ]  
}
```


Answers with Charts

```
{  
  "report_type": "answers",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "bar",  
      "column": "created_at",  
      "title": "Answers Creation Timeline"  
    }  
  ]  
}
```

9. FORMS

Available Columns

id, title, description, user_id, is_public, creator.username, creator.email,
creator.first_name, creator.last_name, creator.environment.name,
creator.environment.description, created_at, updated_at, is_deleted, deleted_at

Default Columns

id, title, description, creator.username, creator.environment.name, is_public,
created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "forms",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "forms",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "forms",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "forms",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "forms",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "forms",  
  "filters": [  
    {"field": "is_public", "operator": "eq", "value": true}  
  ],  
  "sort_by": [  
    {"field": "created_at", "direction": "desc"}  
  ]  
}
```

Forms with Charts

```
{
  "report_type": "forms",
  "output_format": "pdf",
  "charts": [
    {
      "type": "pie",
      "column": "is_public",
      "title": "Public vs Private Forms"
    },
    {
      "type": "bar",
      "column": "creator.username",
      "title": "Forms per Creator"
    },
    {
      "type": "line",
      "column": "created_at",
      "title": "Form Creation Timeline"
    }
  ]
}
```

10. FORM_QUESTIONS

Available Columns

id, form_id, question_id, order_number, form.title, form.description, form.is_public,
question.text, question.is_signature, question.question_type.type,
created_at, updated_at, is_deleted, deleted_at

Default Columns

id, form_id, question_id, order_number, form.title, question.text,
question.question_type.type

Request Bodies

Basic Excel Report

```
{  
  "report_type": "form_questions",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "form_questions",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "form_questions",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "form_questions",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "form_questions",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "form_questions",  
  "filters": [  
    {"field": "form.title", "operator": "like", "value": "Inspection"}  
  ],  
  "sort_by": [  
    {"field": "form_id", "direction": "asc"},  
    {"field": "order_number", "direction": "asc"}  
  ]  
}
```

Form Questions with Charts

```
{
  "report_type": "form_questions",
  "output_format": "pdf",
  "charts": [
    {
      "type": "bar",
      "column": "form.title",
      "title": "Questions by Form"
    },
    {
      "type": "pie",
      "column": "question.question_type.type",
      "title": "Question Types Distribution"
    }
  ]
}
```

11. FORM_ANSWERS

Available Columns

id, form_question_id, answer_id, remarks, form_question.form.title,
form_question.form.description, form_question.question.text,
form_question.question.question_type.type, form_question.order_number,
answer.value, answer.remarks, created_at, updated_at, is_deleted, deleted_at

Default Columns

id, form_question_id, answer_id, form_question.question.text, answer.value, remarks

Request Bodies

Basic Excel Report

```
{  
  "report_type": "form_answers",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "form_answers",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "form_answers",  
  "output_format": "pdf"  
}
```


DOCX Report

```
{  
  "report_type": "form_answers",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "form_answers",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "form_answers",  
  "filters": [  
    {"field": "form_question.form.title", "operator": "eq", "value": "Safety Checklist"}  
  ],  
  "sort_by": [  
    {"field": "form_question_id", "direction": "asc"}  
  ]  
}
```

Form Answers with Charts

```
{  
  "report_type": "form_answers",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "bar",  
      "column": "form_question.form.title",  
      "title": "Answers by Form"  
    },  
    {  
      "type": "pie",  
      "column": "form_question.question.question_type.type",  
      "title": "Answers by Question Type"  
    }  
  ]  
}
```

12. FORM_SUBMISSIONS

Available Columns

id, form_id, submitted_by, submitted_at, form.title, form.description, form.is_public,
form.creator.username, form.creator.email, form.creator.environment.name,
created_at, updated_at, is_deleted, deleted_at

plus dynamic columns for form answers in the format: answers.<question_text>

Default Columns

id, form_id, form.title, submitted_by, submitted_at, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "form_submissions",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "form_submissions",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "form_submissions",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "form_submissions",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "form_submissions",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report with Dynamic Columns

```
{
  "report_type": "form_submissions",
  "columns": [
    "id", "form.title", "submitted_by", "submitted_at",
    "answers.What is your name?",
    "answers.What department do you work in?",
    "answers.Inspection date"
  ],
  "filters": [
    {"field": "form.title", "operator": "eq", "value": "Quality Inspection"},
    {"field": "submitted_at", "operator": "between", "value": ["2023-01-01", "2023-12-31"]}
  ],
  "sort_by": [
    {"field": "submitted_at", "direction": "desc"}
  ]
}
```

Form Submissions with Charts

```
{
  "report_type": "form_submissions",
  "output_format": "pdf",
  "charts": [
    {
      "type": "bar",
      "column": "submitted_by",
      "title": "Submissions by User"
    },
    {
      "type": "pie",
      "column": "form.title",
      "title": "Submissions by Form"
    },
    {
      "type": "line",
      "column": "submitted_at",
      "title": "Submission Timeline"
    },
    {
      "type": "bar",
      "column": "answers.What department do you work in?",
      "title": "Submissions by Department"
    }
  ]
}
```

13. ANSWERS_SUBMITTED

Available Columns

id, question, question_type, answer, form_submission_id, column, row, cell_content,
form_submission.submitted_by, form_submission.submitted_at,
form_submission.form.title, form_submission.form.description,
created_at, updated_at, is_deleted, deleted_at

Default Columns

id, form_submission_id, form_submission.form.title, question, question_type,
answer, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "answers_submitted",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "answers_submitted",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "answers_submitted",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "answers_submitted",
```

```
"output_format": "docx"
}
```

PPTX Report

```
{
  "report_type": "answers_submitted",
  "output_format": "pptx",
  "include_data_table_in_ppt": true
}
```

Filtered Report

```
{
  "report_type": "answers_submitted",
  "filters": [
    {"field": "question_type", "operator": "eq", "value": "dropdown"},
    {"field": "form_submission.submitted_at", "operator": "between", "value": ["2023-06-01", "2023-06-30"]}
  ],
  "sort_by": [
    {"field": "form_submission.submitted_at", "direction": "desc"}
  ]
}
```


Answers Submitted with Charts

```
{
  "report_type": "answers_submitted",
  "output_format": "pdf",
  "charts": [
    {
      "type": "pie",
      "column": "question_type",
      "title": "Answers by Question Type"
    },
    {
      "type": "bar",
      "column": "question",
      "title": "Answers by Question"
    },
    {
      "type": "bar",
      "column": "form_submission.form.title",
      "title": "Answers by Form"
    }
  ]
}
```

14. ATTACHMENTS

Available Columns

id, form_submission_id, file_type, file_path, is_signature, signature_position,
signature_author, form_submission.submitted_by, form_submission.submitted_at,
form_submission.form.title, form_submission.form.description,
created_at, updated_at, is_deleted, deleted_at

Default Columns

id, form_submission_id, form_submission.form.title, file_path, file_type, is_signature,
signature_author, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "attachments",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "attachments",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "attachments",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "attachments",  
  "output_format": "docx"  
}
```

PPTX Report

```
{  
  "report_type": "attachments",  
  "output_format": "pptx",  
  "include_data_table_in_ppt": true  
}
```

Filtered Report

```
{  
  "report_type": "attachments",  
  "filters": [  
    {"field": "is_signature", "operator": "eq", "value": true}  
  ],  
  "sort_by": [  
    {"field": "created_at", "direction": "desc"}  
  ]  
}
```

Attachments with Charts

```
{
  "report_type": "attachments",
  "output_format": "pdf",
  "charts": [
    {
      "type": "pie",
      "column": "file_type",
      "title": "Attachments by File Type"
    },
    {
      "type": "pie",
      "column": "is_signature",
      "title": "Signature vs Non-Signature Attachments"
    },
    {
      "type": "bar",
      "column": "signature_author",
      "title": "Signatures by Author"
    },
    {
      "type": "bar",
      "column": "form_submission.form.title",
      "title": "Attachments by Form"
    }
  ]
}
```

15. TOKEN_BLOCKLIST

Available Columns

id, jti, created_at

Default Columns

id, jti, created_at

Request Bodies

Basic Excel Report

```
{  
  "report_type": "token_blocklist",  
  "output_format": "xlsx"  
}
```

CSV Report

```
{  
  "report_type": "token_blocklist",  
  "output_format": "csv"  
}
```

PDF Report

```
{  
  "report_type": "token_blocklist",  
  "output_format": "pdf"  
}
```

DOCX Report

```
{  
  "report_type": "token_blocklist",  
  "output_format": "docx"  
}
```

PPTX Report

```
{
```

```
"report_type": "token_blocklist",  
"output_format": "pptx",  
"include_data_table_in_ppt": true  
}
```

Sorted Report

```
{  
  "report_type": "token_blocklist",  
  "sort_by": [  
    {"field": "created_at", "direction": "desc"}  
  ]  
}
```

Token Blocklist with Charts

```
{  
  "report_type": "token_blocklist",  
  "output_format": "pdf",  
  "charts": [  
    {  
      "type": "line",  
      "column": "created_at",  
      "title": "Token Blocklist Timeline"  
    }  
  ]  
}
```

MULTI-ENTITY REPORTS (continued)

1. All Entities Report (continued)

PDF Format

```
{  
  "report_type": "all",  
  "output_format": "pdf",  
  "report_title": "Complete System Data Export"  
}
```

CSV Format

```
{  
  "report_type": "all",  
  "output_format": "csv",  
  "report_title": "Complete System Data Export"  
}
```

DOCX Format

```
{  
  "report_type": "all",  
  "output_format": "docx",  
  "report_title": "Complete System Data Export"  
}
```

2. Users and Roles Report

Excel Format

```
{  
  "report_type": ["users", "roles"],  
  "output_format": "xlsx",  
  "report_title": "Users and Roles Analysis"  
}
```

PDF Format

```
{  
  "report_type": ["users", "roles"],  
  "output_format": "pdf",  
  "report_title": "Users and Roles Analysis"  
}
```

CSV Format

```
{  
  "report_type": ["users", "roles"],  
  "output_format": "csv",  
  "report_title": "Users and Roles Analysis"  
}
```

DOCX Format

```
{  
  "report_type": ["users", "roles"],  
  "output_format": "docx",  
  "report_title": "Users and Roles Analysis"  
}
```


With Filters and Charts

```
{  
  "report_type": ["users", "roles"],  
  "output_format": "pdf",  
  "report_title": "Users and Roles Analysis",  
  "filters": [  
    {"field": "users.environment.name", "operator": "eq", "value": "Production"}  
  ],  
  "charts": [  
    {  
      "type": "pie",  
      "column": "users.role.name",  
      "title": "Users by Role"  
    },  
    {  
      "type": "pie",  
      "column": "roles.is_super_user",  
      "title": "Roles by Superuser Status"  
    }  
  ]  
}
```

3. Form Submissions with Attachments Report

Excel Format

```
{  
  "report_type": ["form_submissions", "attachments"],  
  "output_format": "xlsx",  
  "report_title": "Form Submissions with Attachments"  
}
```

PDF Format

```
{  
  "report_type": ["form_submissions", "attachments"],  
  "output_format": "pdf",  
  "report_title": "Form Submissions with Attachments"  
}
```

CSV Format

```
{  
  "report_type": ["form_submissions", "attachments"],  
  "output_format": "csv",  
  "report_title": "Form Submissions with Attachments"  
}
```

DOCX Format

```
{  
  "report_type": ["form_submissions", "attachments"],  
  "output_format": "docx",  
  "report_title": "Form Submissions with Attachments"  
}
```

With Filters and Charts

```
{
  "report_type": ["form_submissions", "attachments"],
  "output_format": "pdf",
  "report_title": "Equipment Inspection Submissions with Attachments",
  "filters": [
    {"field": "form_submissions.form.title", "operator": "eq", "value": "Equipment
Inspection"}
  ],
  "charts": [
    {
      "type": "bar",
      "column": "form_submissions.submitted_by",
      "title": "Submissions by User"
    },
    {
      "type": "pie",
      "column": "attachments.file_type",
      "title": "Attachments by File Type"
    },
    {
      "type": "line",
      "column": "form_submissions.submitted_at",
      "title": "Submission Timeline"
    }
  ]
}
```

4. Forms, Questions, and Submissions Report

Excel Format

```
{  
  "report_type": ["forms", "form_questions", "form_submissions"],  
  "output_format": "xlsx",  
  "report_title": "Complete Form Analysis"  
}
```

PDF Format

```
{  
  "report_type": ["forms", "form_questions", "form_submissions"],  
  "output_format": "pdf",  
  "report_title": "Complete Form Analysis"  
}
```

CSV Format

```
{  
  "report_type": ["forms", "form_questions", "form_submissions"],  
  "output_format": "csv",  
  "report_title": "Complete Form Analysis"  
}
```

DOCX Format

```
{  
  "report_type": ["forms", "form_questions", "form_submissions"],  
  "output_format": "docx",  
  "report_title": "Complete Form Analysis"  
}
```

With Filters and Charts

```
{
  "report_type": ["forms", "form_questions", "form_submissions"],
  "output_format": "pdf",
  "report_title": "Public Forms Analysis",
  "filters": [
    {"field": "forms.is_public", "operator": "eq", "value": true}
  ],
  "charts": [
    {
      "type": "bar",
      "column": "forms.creator.username",
      "title": "Forms per Creator"
    },
    {
      "type": "pie",
      "column": "form_questions.question.question_type.type",
      "title": "Question Type Distribution"
    },
    {
      "type": "line",
      "column": "form_submissions.submitted_at",
      "title": "Submission Timeline"
    }
  ]
}
```

5. Roles and Permissions Analysis

Excel Format

```
{  
  "report_type": ["roles", "permissions", "role_permissions"],  
  "output_format": "xlsx",  
  "report_title": "Roles and Permissions Analysis"  
}
```

PDF Format

```
{  
  "report_type": ["roles", "permissions", "role_permissions"],  
  "output_format": "pdf",  
  "report_title": "Roles and Permissions Analysis"  
}
```

CSV Format

```
{  
  "report_type": ["roles", "permissions", "role_permissions"],  
  "output_format": "csv",  
  "report_title": "Roles and Permissions Analysis"  
}
```

DOCX Format

```
{  
  "report_type": ["roles", "permissions", "role_permissions"],  
  "output_format": "docx",  
  "report_title": "Roles and Permissions Analysis"  
}
```

With Charts

```
{
  "report_type": ["roles", "permissions", "role_permissions"],
  "output_format": "pdf",
  "report_title": "Roles and Permissions Analysis",
  "charts": [
    {
      "type": "pie",
      "column": "roles.is_super_user",
      "title": "Regular vs. Superuser Roles"
    },
    {
      "type": "bar",
      "column": "permissions.action",
      "title": "Permissions by Action Type"
    },
    {
      "type": "bar",
      "column": "role_permissions.role.name",
      "title": "Permission Count by Role"
    }
  ]
}
```

6. User Activity Report

Excel Format

```
{  
  "report_type": ["users", "form_submissions", "attachments"],  
  "output_format": "xlsx",  
  "report_title": "User Activity Report"  
}
```

PDF Format

```
{  
  "report_type": ["users", "form_submissions", "attachments"],  
  "output_format": "pdf",  
  "report_title": "User Activity Report"  
}
```

PPTX Format

```
{  
  "report_type": ["users", "form_submissions", "attachments"],  
  "output_format": "pptx",  
  "report_title": "User Activity Report",  
  "include_data_table_in_ppt": true  
}
```


With Filters and Charts

```
{
  "report_type": ["users", "form_submissions", "attachments"],
  "output_format": "pptx",
  "report_title": "User Activity Report 2023",
  "filters": [
    {
      "field": "form_submissions.submitted_at", "operator": "between", "value": ["2023-01-01", "2023-12-31"]
    }
  ],
  "charts": [
    {
      "type": "bar",
      "column": "users.role.name",
      "title": "Users by Role"
    },
    {
      "type": "line",
      "column": "form_submissions.submitted_at",
      "title": "Submission Timeline"
    },
    {
      "type": "pie",
      "column": "attachments.file_type",
      "title": "Attachment Types"
    }
  ],
  "include_data_table_in_ppt": true
}
```

7. CSV Export of Form Submissions with Answers

CSV Format

```
{  
  "report_type": ["form_submissions", "answers_submitted"],  
  "output_format": "csv",  
  "report_title": "Form Submissions with Answers"  
}
```

With Filters

```
{  
  "report_type": ["form_submissions", "answers_submitted"],  
  "output_format": "csv",  
  "filters": [  
    {"field": "form_submissions.form.title", "operator": "eq", "value": "Customer  
Feedback"}  
  ],  
  "report_title": "Customer Feedback Responses"  
}
```

8. Environment and User Analysis

Excel Format

```
{  
  "report_type": ["environments", "users"],  
  "output_format": "xlsx",  
  "report_title": "Environment User Distribution"  
}
```

PDF Format

```
{  
  "report_type": ["environments", "users"],  
  "output_format": "pdf",  
  "report_title": "Environment User Distribution"  
}
```

With Charts

```
{  
  "report_type": ["environments", "users"],  
  "output_format": "pdf",  
  "report_title": "Environment User Distribution",  
  "charts": [  
    {  
      "type": "bar",  
      "column": "environments.name",  
      "title": "Environments Overview"  
    },  
    {  
      "type": "pie",  
      "column": "users.environment.name",  
      "title": "User Distribution by Environment"  
    }  
  ]  
}
```

9. Question Type Usage Analysis

Excel Format

```
{  
  "report_type": ["question_types", "questions", "form_questions"],  
  "output_format": "xlsx",  
  "report_title": "Question Type Usage Analysis"  
}
```

PDF Format

```
{  
  "report_type": ["question_types", "questions", "form_questions"],  
  "output_format": "pdf",  
  "report_title": "Question Type Usage Analysis"  
}
```

With Charts

```
{
  "report_type": ["question_types", "questions", "form_questions"],
  "output_format": "pdf",
  "report_title": "Question Type Usage Analysis",
  "charts": [
    {
      "type": "pie",
      "column": "question_types.type",
      "title": "Available Question Types"
    },
    {
      "type": "bar",
      "column": "questions.question_type.type",
      "title": "Questions by Type"
    },
    {
      "type": "bar",
      "column": "form_questions.form.title",
      "title": "Questions per Form"
    }
  ]
}
```

10. Forms with Answers Analysis

Excel Format

```
{  
  "report_type": ["forms", "form_answers"],  
  "output_format": "xlsx",  
  "report_title": "Forms with Answers Analysis"  
}
```

PDF Format

```
{  
  "report_type": ["forms", "form_answers"],  
  "output_format": "pdf",  
  "report_title": "Forms with Answers Analysis"  
}
```

With Charts

```
{
  "report_type": ["forms", "form_answers"],
  "output_format": "pdf",
  "report_title": "Forms with Answers Analysis",
  "charts": [
    {
      "type": "pie",
      "column": "forms.is_public",
      "title": "Public vs Private Forms"
    },
    {
      "type": "bar",
      "column": "form_answers.form_question.form.title",
      "title": "Answers per Form"
    }
  ]
}
```

USING TEMPLATES

1. Basic Template Request

```
{  
  "template_id": 123  
}
```

2. Template with Format Override

```
{  
  "template_id": 123,  
  "output_format": "pdf"  
}
```

3. Template with Additional Filters

```
{  
  "template_id": 123,  
  "filters": [  
    {"field": "submitted_at", "operator": "between", "value": ["2023-01-01", "2023-12-31"]}  
  ]  
}
```

4. Template with Custom Title

```
{  
  "template_id": 123,  
  "report_title": "Quarterly Analysis Report"  
}
```


5. Template with Custom Charts

```
{  
  "template_id": 123,  
  "charts": [  
    {  
      "type": "bar",  
      "column": "submitted_by",  
      "title": "Submissions by User"  
    }  
  ]  
}
```

ADVANCED FILTERING EXAMPLES

1. Date Range Filter

```
{  
  "report_type": "form_submissions",  
  "filters": [  
    {"field": "submitted_at", "operator": "between", "value": ["2023-01-01", "2023-12-31"]}  
  ]  
}
```

2. Multiple Conditions Filter

```
{  
  "report_type": "users",  
  "filters": [  
    {"field": "environment.name", "operator": "eq", "value": "Production"},  
    {"field": "role.name", "operator": "neq", "value": "admin"},  
    {"field": "created_at", "operator": "gt", "value": "2023-01-01"}  
  ]  
}
```

3. Text Search Filter

```
{  
  "report_type": "forms",  
  "filters": [  
    {"field": "title", "operator": "like", "value": "safety"},  
    {"field": "description", "operator": "like", "value": "inspection"}  
  ]  
}
```

4. Boolean Filter

```
{  
  "report_type": "roles",  
  "filters": [  
    {"field": "is_super_user", "operator": "eq", "value": true}  
  ]  
}
```

5. Null Check Filter

```
{  
  "report_type": "attachments",  
  "filters": [  
    {"field": "signature_author", "operator": "isnull", "value": null}  
  ]  
}
```

6. Not Null Check Filter

```
{  
  "report_type": "attachments",  
  "filters": [  
    {"field": "signature_author", "operator": "isnotnull", "value": null}  
  ]  
}
```

7. In List Filter

```
{  
  "report_type": "users",  
  "filters": [  
    {"field": "role.name", "operator": "in", "value": ["admin", "supervisor", "manager"]}  
  ]  
}
```

8. Not In List Filter

```
{  
  "report_type": "users",  
  "filters": [  
    {"field": "role.name", "operator": "notin", "value": ["guest", "viewer"]}  
  ]  
}
```

9. Starts With Filter

```
{  
  "report_type": "questions",  
  "filters": [  
    {"field": "text", "operator": "startswith", "value": "What"}  
  ]  
}
```

10. Ends With Filter

```
{  
  "report_type": "questions",  
  "filters": [  
    {"field": "text", "operator": "endswith", "value": "?"}  
  ]  
}
```

DATABASE SCHEMA ENDPOINT

Fetch Database Schema Information

GET /reports/schema

This endpoint returns detailed information about the database schema, including tables, columns, relationships, and row counts. Only administrators have access to this endpoint.

ERROR RESPONSES

The API will return HTTP status codes with appropriate error messages:

- 400 Bad Request: Missing parameters or validation error
- 403 Forbidden: Permission denied for requested report
- 404 Not Found: Template or entity not found
- 500 Internal Server Error: Unexpected server error

Example error response:

```
{  
  "error": "Missing required report parameter: report_type"  
}
```

This comprehensive API documentation covers all possible request bodies for report generation, organized by individual entities and combinations. Each section includes the available output formats, filtering options, and chart configurations to assist frontend developers in implementing the reporting functionality.