

Introduction

- My name is Askhat Samuratov. I have been working as engineer in aviation industry for more than 7 years. My main responsibility at work is conducting investigation of aviation occurrences and accidents with respect to technical side of aircraft and actions of aircraft maintenance personnel.
- First experience with programming language was scripts written in Excel VBA.
- In my free time, I like learning programming, reading books and long runs.

Document Management System (DMS)

DMS is designed to allow the organization to manage company documentation and its accessibility to all company employees

Main functionalities of DMS

	EMPLOYEE	MANAGER	ADMIN
Log in to DMS	✓	✓	✓
To create user accounts	⊗	⊗	✓
To change own account's password	✓	✓	✓
To edit user account details	⊗	⊗	✓
Create new document	⊗	✓	✓
Add new revision to document	⊗	✓	✓
Validate new revision of document	⊗	✓	✓
Search for document	✓	✓	✓
View/download document	✓	✓	✓
Edit document details	⊗	✓	✓
See user/document transactions	⊗	✓	✓
Make comment to document	✓	✓	✓

Used technologies



DMS documents browse and add document function

Document Management Service

User: susan.s [ROLE_ADMIN]

Validations list

Logout

Documents

Users

Export as list

Search

Id

Search

Id	Document code	Type	Title	Revision number	Status	Creation date	Modification date	Author	Actions
1	POL-001	Policy	Safety Policy	1	Validated	2024-06-07	2024-06-12	john.s	<a>Edit
2	MAN-001	Manual	Finance planning manual	1	Validated	2022-02-07	2023-11-11	john.s	<a>Edit
3	POL-002	Policy	Working policy	1	In progress	2023-09-29	2023-05-23	susan.s	<a>Edit
4	MAN-002	Manual	Bugheting manual	1	Validated	2021-11-11	2023-06-12	marry.s	<a>Edit
5	INS-001	Instruction	Working instruction	1	Validated	2022-07-15	2023-09-03	susan.s	<a>Edit
6	MAN-002	Manual	Repair manual	0	In progress	2024-06-15	2024-06-15	susan.s	<a>Edit
7	INS-009	Policy	Security instruction	0	Validated	2024-06-15	2024-06-15	mary.s	<a>Edit
8	INS-008	Policy	Security instruction	0	In progress	2024-06-15	2024-06-15	mary.s	<a>Edit

Create document

1. Document info

Document code

Policy

Title

0

In Progress

dd-----yyyy

dd-----yyyy

john.s

Save

DMS users browse and add user function

Id

▼

Id	User ID	First name	Last name	Email	Department	Role	Status	Actions
1	john.s	john	smith	john.s@gmail.com	Finance	ROLE_MANAGER	Active	<input type="button" value="Edit"/>
2	mary.s	mary	smith	mary.s@gmail.com	Procurement	ROLE_ADMIN	Active	<input type="button" value="Edit"/>
3	susan.s	susan	smith	susan.s@gmail.com	Finance	ROLE_ADMIN	Active	<input type="button" value="Edit"/>
5	kerry.g	kerry	grey	kerry.g@gmail.com	Sales	ROLE_MANAGER	Not active	<input type="button" value="Edit"/>
6	micheal.s	micheal	smith	micheal.s@gmail.com	Legal	ROLE_MANAGER	Active	<input type="button" value="Edit"/>

Add new user

×

User ID

First name

Last name

Email

Finance

ROLE_ADMIN

Active

Password

s

Add user

DMS users edit function

Search

Id

Search

Id	User ID	First name	Last name	Email	Department	Role	Status	Actions
1	john.s	john	smith	john.s@gmail.com	Finance	ROLE_MANAGER	Active	Edit
2	mary.s	mary	smith	mary.s@gmail.com	Procurement	ROLE_ADMIN	Active	Edit
3	susan.s	susan	smith	susan.s@gmail.com	Finance	ROLE_ADMIN	Active	Edit
5	kerry.g	kerry	grey	kerry.g@gmail.com	Sales	ROLE_MANAGER	Not active	Edit
6	micheal.s	micheal	smith	micheal.s@gmail.com	Legal	ROLE_MANAGER	Active	Edit

Add user

1. User info

Id

1

User id

john.s

First name

john

Last name

smith

Department

Finance

Email

john.s@gmail.com

Role

ROLE_MANAGER

Password

Status

Active

Save

2. User transactions

Id	Date	Modified by	Modified user	Transaction type
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3. Document transactions




Id	Date	Modified by	Modified document	Transaction type
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[Export as list](#)

DMS document download/view function

2. Document revisions								
Id	User id	Document id	Date	Revision number	Status id	Description	Validating by user	Actions
2	mary.s	8	2024-06-15	1	Validated	Revision 1	john.s	Download Open
3	susan.s	8	2024-06-15	1	Validated	Revision 1	john.s	Download Open
4	john.s	8	2024-06-15	1	Validated	Rotor	john.s	Download Open
Add new revision								

1 / 1100%+



POL-001 Safety policy

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis at libero ligula. Curabitur vitae ornare nibh. Suspendisse tempor quam non risus rhoncus, euismod fringilla mauris posuere. Nunc fringilla, metus et pulvinar tincidunt, dui velit lobortis mi, in vestibulum erat mauris eu fells. Praesent ultrices tempus ornare. Nam in enim ipsum. Fusce ullamcorper lectus leo, a porta augue tincidunt fringilla. Morbi erat risus, bibendum ac justo non, viverra laoreet massa. Curabitur sodales turpis quis ullamcorper blandit.

Vestibulum egestas aliquam libero, vitae hendrerit quam lobortis at. Aliquam et euismod elit, vel varius nulla. Curabitur sed dolor sapien. Nulla vel nulla vel est maximus venenatis. Nam et velit ullamcorper, tincidunt nulla sed, pellentesque nibh. Aliquam id tellus ligula. Mauris in mattis dui. Donec nec tempor metus, a dignissim dolor. Donec quis fells vel lectus tincidunt consequat. Nullam varius nisi lectus, tempor malesuada urna varius sit amet. In convallis volutpat justo, in bibendum urna porttitor eu. Vestibulum in aliquet orci. Sed rutrum vitae lacus ac imperdiet. Aliquam ac libero orci.

Aenean aliquam consequat feugiat. Nulla a purus at orci dignissim feugiat et ut lorem. Suspendisse eget posuere dolor. Donec accumsan urna vel fells ultricies, id mattis nunc congue. Mauris tincidunt quis neque ac eleifend. Donec nec metus feugiat, vestibulum urna et, interdum lorem. Nam quis blandit augue, nec mattis quam. Donec in auctor dolor. Duis molestie in mi id congue. Integer rutrum ornare ullamcorper. Vivamus sed dictum orci. Pellentesque eget turpis quis sapien sodales sodales. Sed molestie rhoncus tincidunt. Nam imperdiet accumsan pharetra. Curabitur tempor, eros sed porttitor facilisis, lectus enim volutpat est, ac dictum ligula elit sed leo.

Praesent ipsum justo, tincidunt non neque pharetra, feugiat sagittis eros. Ut nibh lacus, pretium vel purus vel, sagittis tincidunt magna. Quisque fringilla fringilla feugiat. Phasellus vitae mattis orci. Duis faucibus euismod volutpat. Aliquam bibendum turpis nec ligula vestibulum, et cursus velit sagittis. Maeenas laoreet massa sit amet augue sodales, eget vulputate velit malesuada. Vestibulum nec eros eget augue tristique dignissim. Nulla sollicitudin nibh sit amet erat suscipit, eget hendrerit est maximus. Etiam nec fringilla odio, ac venenatis massa.

Praesent venenatis imperdiet lectus eu ultrices. Mauris pulvinar et nisi ut ullamcorper. Sed vitae imperdiet quam. Nulla ac consectetur orci. Nullam imperdiet dui ac quam hendrerit pharetra. Quisque faucibus posuere sapien, et tempor lorem pellentesque vel. Nunc posuere quam at sapien tempus pretium. Donec feugiat nisi nec tincidunt malesuada. Sed cursus convallis ipsum. Sed at posuere augue. In vulputate velit justo, in pharetra purus ullamcorper ac. Nunc viverra mollis nisi sed facilisis. Quisque malesuada blandit est, ac eleifend sapien. Nulla condimentum vestibulum tellus, vel ullamcorper massa auctor auctor. Etiam luctus vulputate condimentum.

DMS add comment to document function

3. Document comments

Id	Document id	User id	Date	Comment	Status	Actions
1	8	susan.s	15.06.2024 08:44:34	Chapter I has incorrect title	TBD	Edit

Add new comment

1. Add new comment

8

susan.s

dd-----yyyy

Comment

Save

DMS add document revision validation

2. Document revisions

Id	User id	Document id	Date	Revision number	Status id	Description	Validating by user	Actions
2	mary.s	8	2024-06-15	1	Validated	Revision 1	john.s	<button>Download</button> <button>Open</button>
3	susan.s	8	2024-06-15	1	Validated	Revision 1	john.s	<button>Download</button> <button>Open</button>
4	john.s	8	2024-06-15	1	Validated	Rotor	john.s	<button>Download</button> <button>Open</button>
5	susan.s	8	2024-06-15	1	Validated	New revision	john.s	<button>Download</button> <button>Open</button>

Add new revision

1. Revision info

8

susan.s

dd-----yyyy

1

Awaiting validation

Description

kerry.g

Link

Save and send to validation

Choose File

No file chosen

Upload

DMS document revision validation

Validations list (+1)

Logout

Id	Document code	Document id	Name	Revision number	Author	Status	Actions
2	INS-008		Security instruction	1	john.s	Validated	Edit
3	INS-008		Security instruction	1	john.s	Validated	Edit
4	INS-008		Security instruction	1	john.s	Validated	Edit
5	INS-008	8	Security instruction	1	john.s	Awaiting validation	Edit

1. Validation info

Id

5

Document Code

INS-008

Name

Security instruction

Revision number

1

Author

john.s

Status

Awaiting validation

[Open attachment](#)

Save

Add new comment

Functions/improvements to be introduced into next version of DMS

- . Improvement of user interface
- . Add feature to change user interface to other languages
- . Sharing link to the document with external users
- . Forgot password function for users using email
- . Email notifications to user about account creation
- . Email notification to user about request for validation of document
- . Email notification to user about new revision of document
- . Sorting/filtering button on "Documents browse" and "Users browse" page
- . Administration page for adding new categories (Role, Document types, Document statuses)
- . Function for filtering list of documents/user before export
- . Function for adding digital signature to document
- . Function for exporting list of document/user transactions
- . Function for reply to comments added to document
- . User account logout after certain period of inactivity
- . REST API endpoints page for third party integration
- . Add deadline for document validation by responsible person
- . Handling incorrect input from user / input validation
- . Add tutorial page on basic functions of DMS (maybe video)
- . Implement page pagination
- . Add restriction to revision validation: revision author cannot validate its own revision request,
- . Add exception handling in service layer.
- . Record the logger data into the file
- . Make document code to be created automatically depending of document type and the next available number (POL-002, POL-003 and etc).
- . More test coverage (unit and integration);
- . Correct tests name convention
- . Use DTO for all operations in controller (POST and GET)