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Assignment 2

Part 1

Description

This part will result in creating two VMs, promoting one of the servers to a Directory Controller and creating a domain.

Preparation

Names of created VMs set to 8569394-A2DC and 8569394-A2MS. Network settings configured as follows:

- IP1:10.174.1.90/24, IP2:10.174.1.91/24
- GW:10.174.1.1
- DNS1:10.144.6.3, DNS2:10.174.1.90

On the DC server AD Domain Controller role was installed, server promoted to a Domain Controller. On the MS server File Server role was installed. Another hard disk was added to MS server.
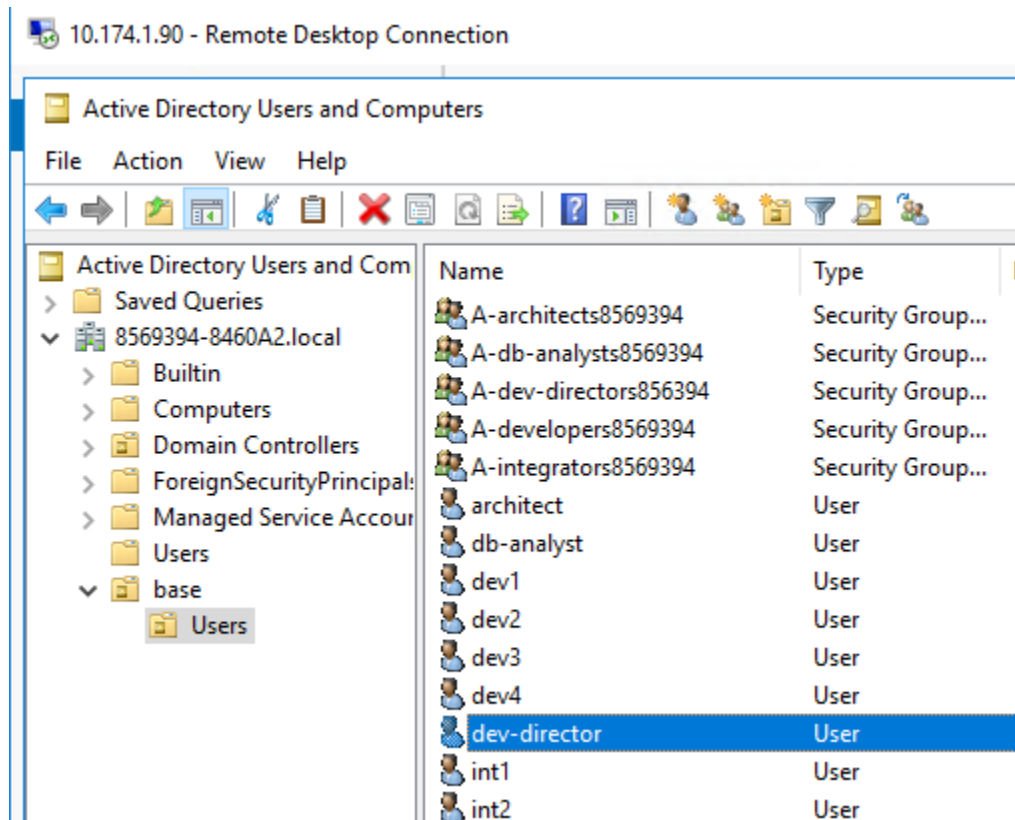
Screenshots
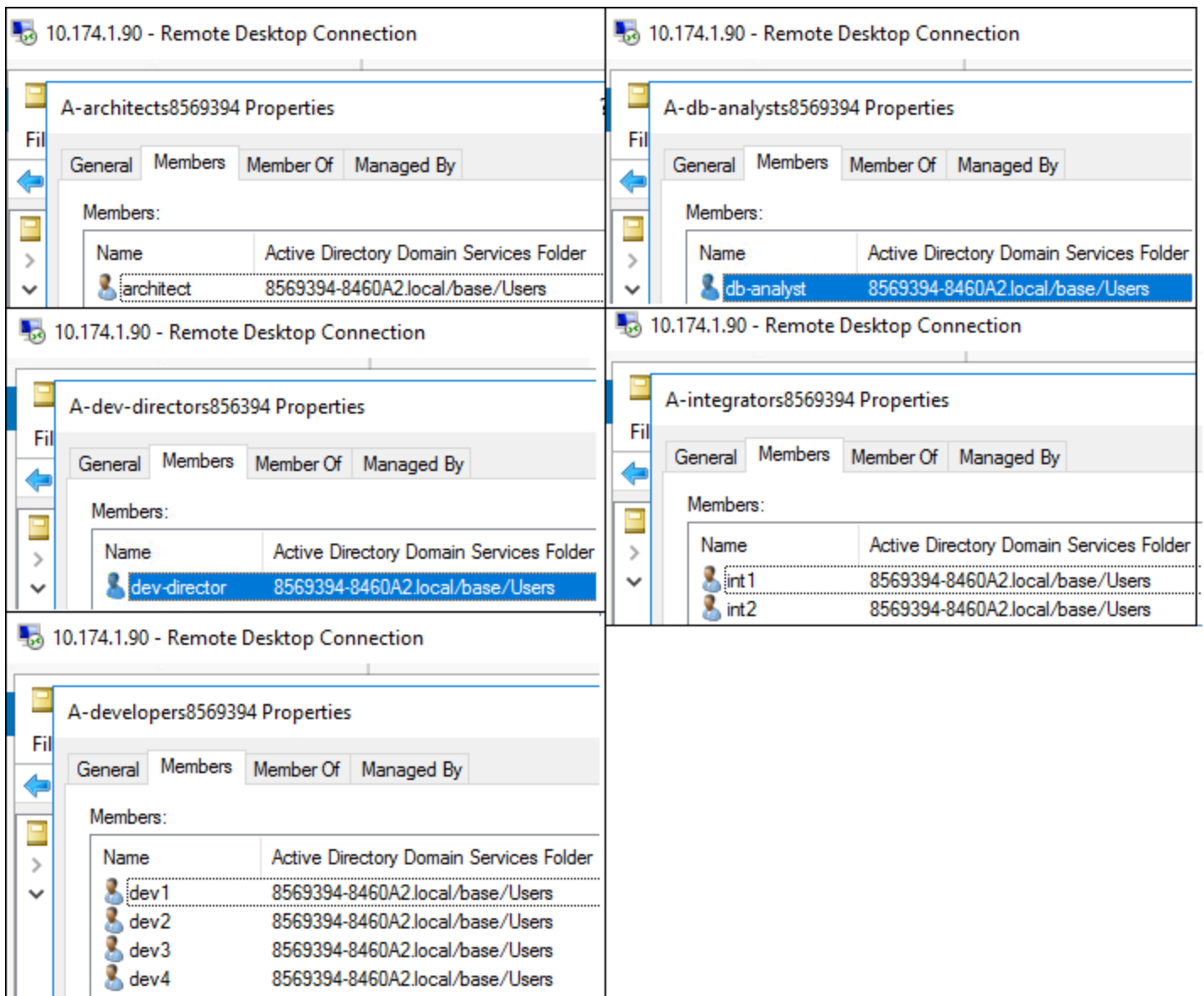

Figure 1. OUs, users and groups

Figure 2. Group members

Discussion

Base OU was created in the domain. Inside of it, another OU Users was created. New users and groups were added to the Users OU. Groups: A-developers8569394, A-integrators8569394, A-architects8569394, A-db-analysts8569394, A-dev-directos8569394; Users: dev1-4, int1-2, architect, db-analyst, dev-director.

Users can be united by their role in the domain. So, user accounts with one role are placed into one group.

Part 2

Description

This part will result in creating required OUs, security groups and users.

Screenshots

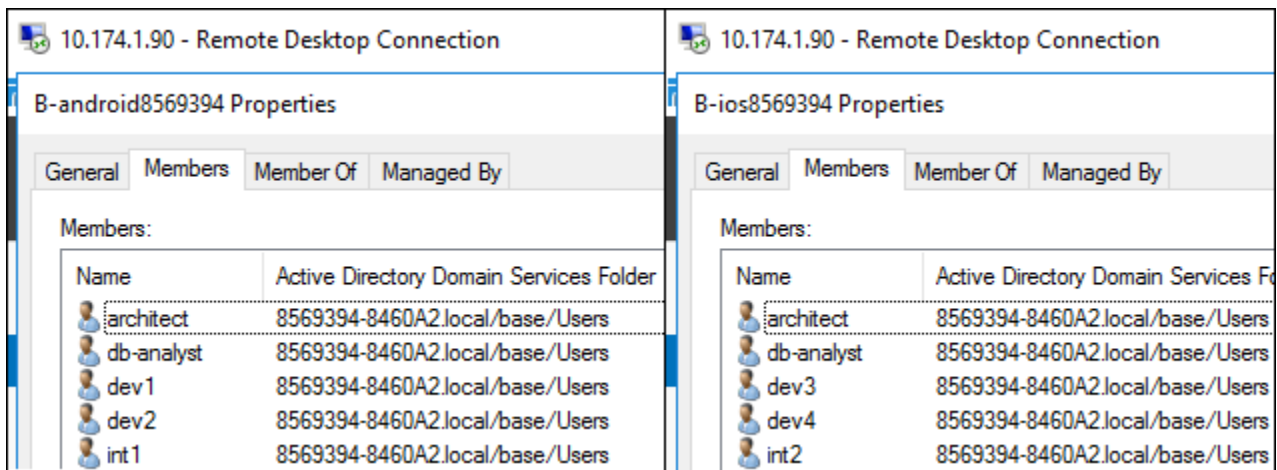*Figure 3. Project members*

Discussion

Two more groups were created, one for each project. Users participated in certain project were added to corresponding groups. Now it will be more convenient to manage permissions of project files.

Part 3

Description

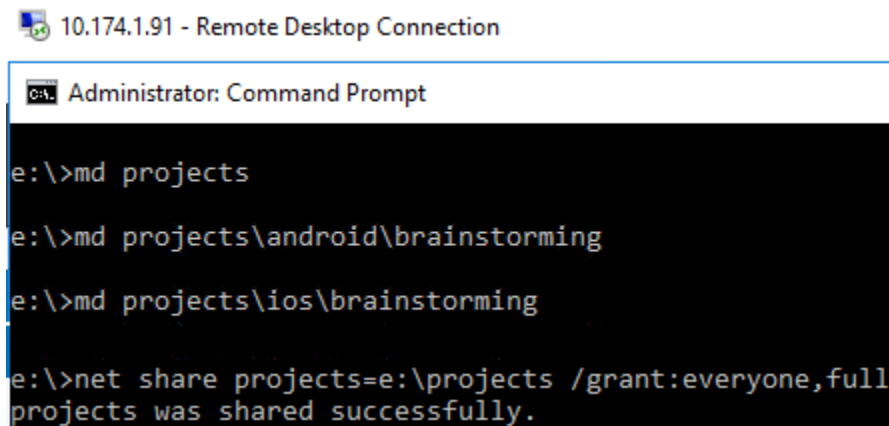This part will result in creating a share and its initial configuration.

Screenshots

Figure 4. Creating and sharing folders

Share	Local Path	Protocol	Availability Type
▲ 8569394-A2MS (1)			
projects	e:\projects	SMB	Not Clustered

projects Properties — □ ⟩

projects

Show All

General +

Permissions +

Settings −

Settings

☑ Enable access-based enumeration

Access-based enumeration displays only the files and folders that a user has permissions to access. If a user does not have Read (or equivalent) permissions for a folder, Windows hides the folder from the user's view.
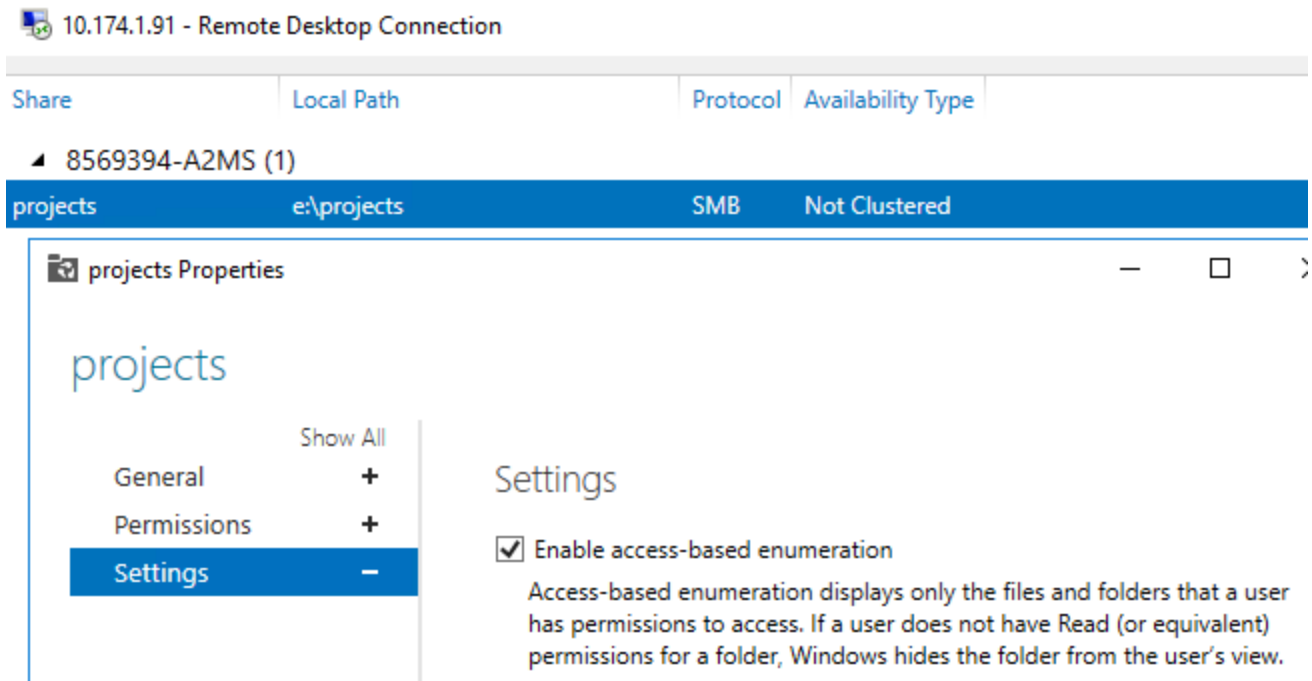
Figure 5. Users without permissions cannot see corresponding folders

Discussion

On the E: drive Projects folders was created. Inside of it, were created two more folders dedicated to current projects: ios and android. Folders for brainstorming were added to each project folder.

Projects folder was shared, and permissions set to Full Control. Now, effective permissions will be derived from NTFS permissions.

Part 4

Description

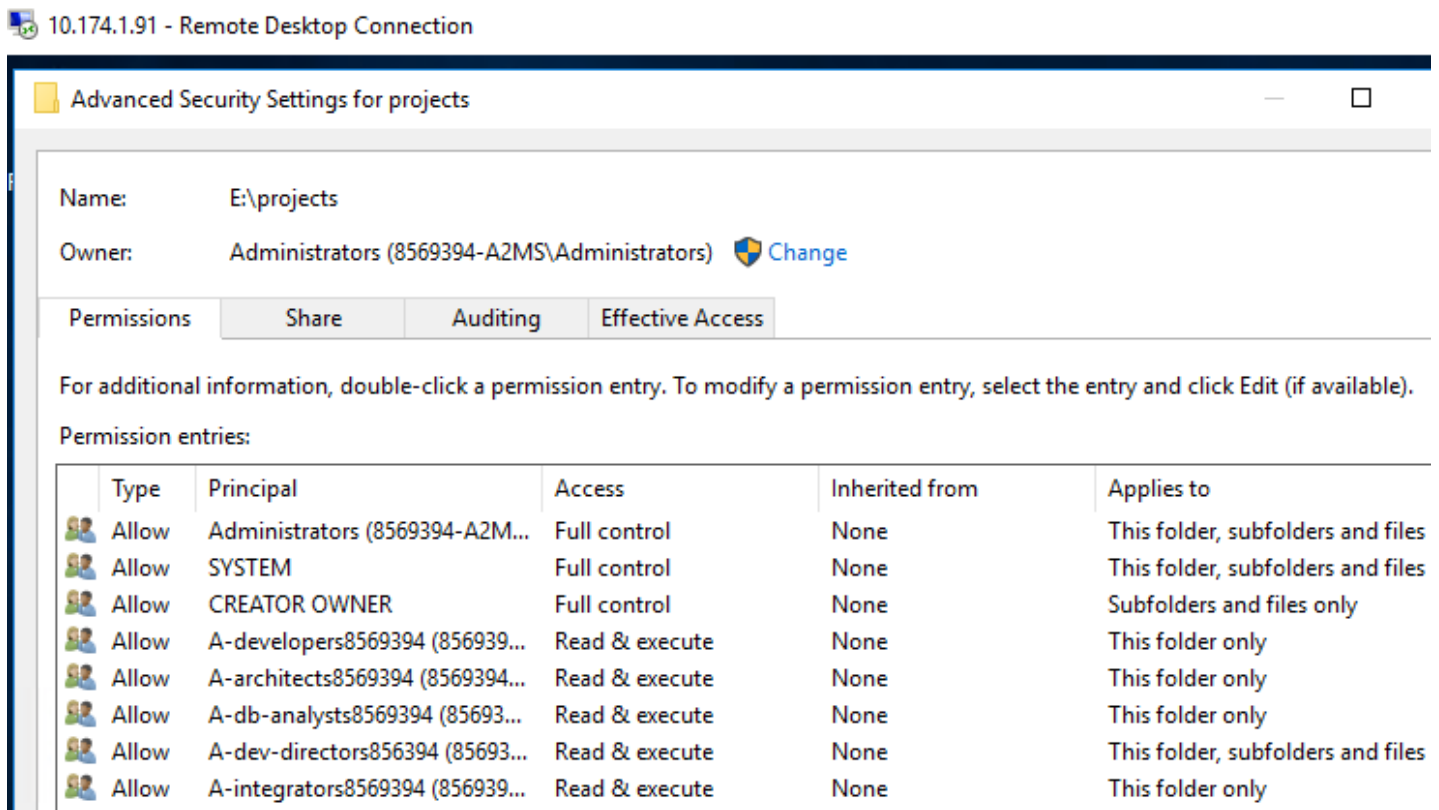In this part we will add several folders to the share and configure their permissions.

Screenshots

Advanced Security Settings for projects — ☐

Name: E:\projects

Owner: Administrators (8569394-A2MS\Administrators) 🛡 Change

| Permissions | Share | Auditing | Effective Access |

For additional information, double-click a permission entry. To modify a permission entry, select the entry and click Edit (if available).

Permission entries:

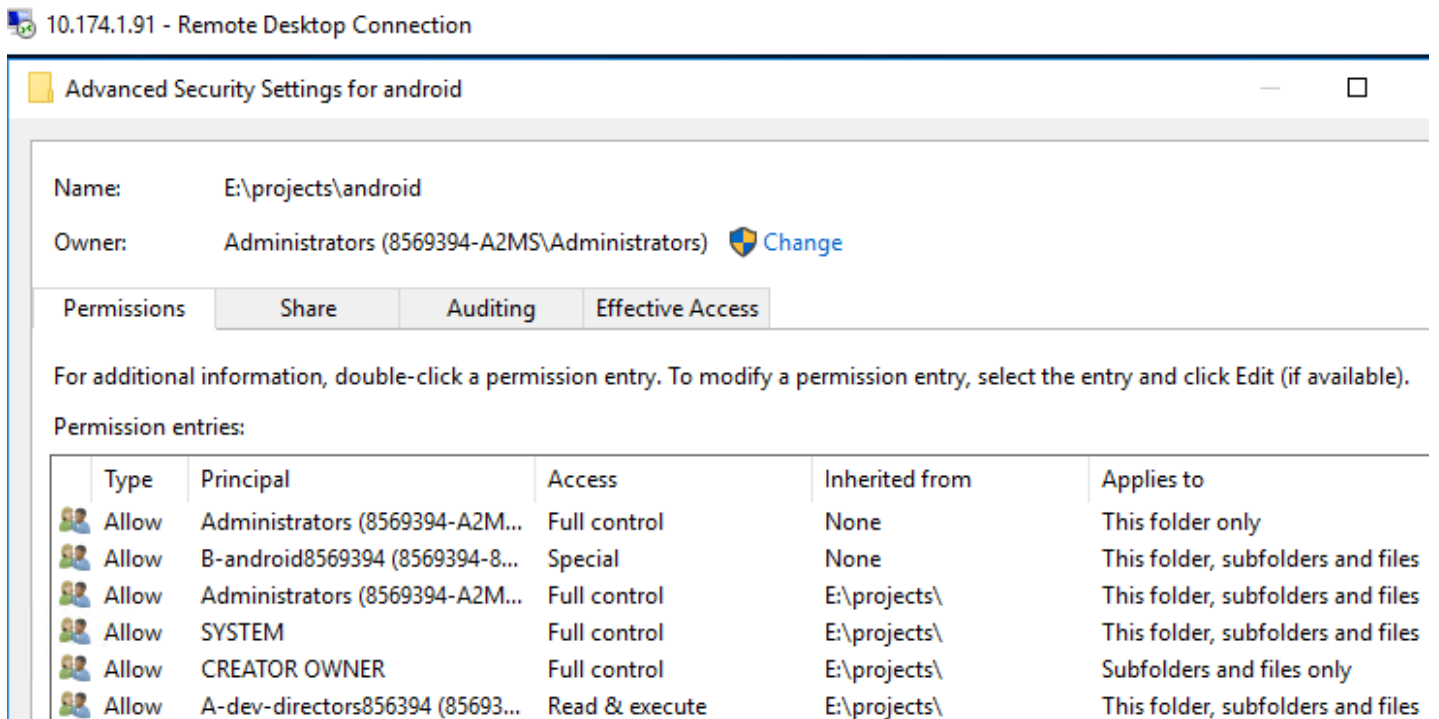|	Type	Principal	Access	Inherited from	Applies to
👥	Allow	Administrators (8569394-A2M...	Full control	None	This folder, subfolders and files
👥	Allow	SYSTEM	Full control	None	This folder, subfolders and files
👥	Allow	CREATOR OWNER	Full control	None	Subfolders and files only
👥	Allow	A-developers8569394 (856939...	Read & execute	None	This folder only
👥	Allow	A-architects8569394 (8569394...	Read & execute	None	This folder only
👥	Allow	A-db-analysts8569394 (85693...	Read & execute	None	This folder only
👥	Allow	A-dev-directors856394 (85693...	Read & execute	None	This folder, subfolders and files
👥	Allow	A-integrators8569394 (856939...	Read & execute	None	This folder only

Figure 6. Projects folder permissions

Advanced Security Settings for android — ☐

Name: E:\projects\android

Owner: Administrators (8569394-A2MS\Administrators) 🛡 Change

| Permissions | Share | Auditing | Effective Access |

For additional information, double-click a permission entry. To modify a permission entry, select the entry and click Edit (if available).

Permission entries:

	Type	Principal	Access	Inherited from	Applies to
👥	Allow	Administrators (8569394-A2M...	Full control	None	This folder only
👥	Allow	B-android8569394 (8569394-8...	Special	None	This folder, subfolders and files
👥	Allow	Administrators (8569394-A2M...	Full control	E:\projects\	This folder, subfolders and files
👥	Allow	SYSTEM	Full control	E:\projects\	This folder, subfolders and files
👥	Allow	CREATOR OWNER	Full control	E:\projects\	Subfolders and files only
👥	Allow	A-dev-directors856394 (85693...	Read & execute	E:\projects\	This folder, subfolders and files

Figure 7. Android folder permissions

Figure 8.IOS folder permissions

Figure 9.Android-brainstorming folder permissions

10.174.1.91 - Remote Desktop Connection

Advanced Security Settings for brainstorming

Name: E:\projects\ios\brainstorming

Owner: Administrators (8569394-A2MS\Administrators) 🛡 Change

| Permissions | Share | Auditing | Effective Access |

For additional information, double-click a permission entry. To modify a permission entry, select the entry and click Edit (if available).

Permission entries:

	Type	Principal	Access
	Allow	Administrators (8569394-A2MS\Administrators)	Full control
	Allow	B-ios8569394 (8569394-8460A2\B-ios8569394)	Modify
	Allow	B-ios8569394 (8569394-8460A2\B-ios8569394)	Special
	Allow	Administrators (8569394-A2MS\Administrators)	Full control
	Allow	SYSTEM	Full control
	Allow	CREATOR OWNER	Full control
	Allow	A-dev-directors856394 (8569394-8460A2\A-dev-directors856394)	Read & execute

Figure 10. IOS-brainstorming folder permissions

10.174.1.91 - Remote Desktop Connection

Advanced Security Settings for android

Name: E:\projects\android

Owner: Administrators (8569394-A2MS\Administrators)

| Permissions | Share | Auditing | Effective A |

Effective access	Permission
✖	Full control
✔	Traverse folder / execute file
✔	List folder / read data
✔	Read attributes
✔	Read extended attributes
✔	Create files / write data
✔	Create folders / append data
✖	Write attributes
✖	Write extended attributes
✖	Delete subfolders and files
✖	Delete
✔	Read permissions
✖	Change permissions
✖	Take ownership

10.174.1.91 - Remote Desktop Connection

Advanced Security Settings for brainstorming

Name: E:\projects\android\brainstorming

Owner: Administrators (8569394-A2MS\Administrator

| Permissions | Share | Auditing | Effective |

Effective access	Permission
✖	Full control
✔	Traverse folder / execute file
✔	List folder / read data
✔	Read attributes
✔	Read extended attributes
✔	Create files / write data
✔	Create folders / append data
✔	Write attributes
✔	Write extended attributes
✖	Delete subfolders and files
✖	Delete
✔	Read permissions
✖	Change permissions
✖	Take ownership

Figure 11. Example of effective permissions

Discussion

First of all, we disabled inheritance in the Projects folder and deleted all plain users permissions. Read permissions were granted to developers, architects, database analysts and system integrators on the Projects folder. Also, Read permissions were granted to developer directors on Projects folder and its content.

Members of B-android and B-ios groups have permissions in the corresponding folders as shown in (Figure 11). Users, participated in corresponding projects, can view and create anything in their folders, however, they can modify only owned files. Files in the brainstorming subfolders can be modified by anyone.