MithrilAC

Database model documentation

Table of contents

1. Model details

Model name:

MithrilAC

Version:

2.3

Database engine:

mysql

Description:

2. Tables

2.1. Table requesters

Description:

Table showing metadata for requesters of user data

2.1.1. Columns

Column name	Type	Properties	Description
id	int		
name	text		

2.2. Table resources

Description:

Table showing metadata for resource being requested

2.2.1. Columns

Column name	Type	Properties	Description
id	int		
name	text		

2.3. Table contextlog

Description:

Table showing log of current user context

2.3.1. Columns

Column name	Type	Properties	Description
id	int		
identity	text		
location	text	null	
activity	text	null	
temporal	text	null	
time	timestamp		

2.4. Table apps

Description:

Table showing metadata for apps

2.4.1. Columns

Column name	Type	Properties	Description
id	int		
uid	int		
description	text	null	
assocprocname	text	null	
targetsdkver	int		
icon	blob		
label	text		
name	text		
verinfo	text		
installed	bool		
type	int		
installdate	timestamp		
requesters_id	int		

2.4.2. Alternate keys

Key name	Columns	Description
apps_unique_key	name	

2.5. Table actionlog

Description:

 Table showing actions taken for each context, resource, requester tuple

2.5.1. Columns

Column name	Type	Properties	Description
id	int		
resources_id	int		
context_id	int		
requesters_id	int		
time	timestamp		
action	int		

2.6. Table policyrules

Description:

Table showing policy rules defined for apps and requested resources in given context

2.6.1. Columns

Column name	Type	Properties	Description
id	int		
name	text		
action	int		
context_id	int		
requesters_id	int		
resources_id	int		

2.7. Table permissions

Description:

Table showing metadata for permissions

2.7.1. Columns

Column name	Type	Properties	Description
id	int		
name	text		
label	text		
protectionlvl	text		
permgrp	text	null	
flag	text	null	
description	text	null	
icon	blob		
resources_id	int		

2.7.2. Alternate keys

Key name	Columns	Description
permissions_unique_name	name	

2.8. Table violationlog

Description:

Table showing violations recorded by MithrilAC and subsequent user feedback

2.8.1. Columns

Column name	Type	Properties	Description
id	int		
resources_id	int		
requesters_id	int		
context_id	int		
description	text		
marker	bool	null	
time	timestamp		

2.9. Table appperm

Description:

Table showing apps and permissions

2.9.1. Columns

Column name	Type	Properties	Description
id	int		
apps_id	int		
permissions_id	int		

3. Views

3.1. View apppermview

Description:

A view for showing a list of app and it's permission metadata

SQL:

```
SELECT
a.name as apppkgname,
p.name as permname,
p.protectionlvl as protectionlevel,
p.label as permlabel,
p.permgrp as permgroup
FROM
apps a,
permissions p,
appperm ap
WHERE
ap.apps_id = a.id
AND
ap.permissions_id = p.id
```

3.1.1. Columns

Column name	Type	Properties	Description
apppkgname	text		
permname	text		
protectionlevel	text		
permlabel	text		
permgroup	text		

4. References

4.1. Reference permissions_resources

resources	1..1	permissions
id	<->	resources_id

4.2. Reference apps_requesters

requesters	0..1	apps
id	<->	requesters_id

4.3. Reference appperm_apps

apps	0..*	appperm
id	<->	apps_id

4.4. Reference appperm_permissions

permissions	0..*	appperm
id	<->	permissions_id

4.5. Reference policyrules_context

contextlog	0..*	policyrules
id	<->	context_id

4.6. Reference policyrules_requesters

requesters	0..*	policyrules
id	<->	requesters_id

4.7. Reference policyrules_resources

resources	0..*	policyrules
id	<->	resources_id

4.8. Reference actions_resources

resources	0..*	actionlog
id	<->	resources_id

4.9. Reference actions_context

contextlog	0..*	actionlog
id	<->	context_id

4.10. Reference actions_requesters

requesters	0..*	actionlog
id	<->	requesters_id

4.11. Reference violations_resources

resources	0..*	violationlog
id	<->	resources_id

4.12. Reference violations_requesters

requesters	0..*	violationlog
id	<->	requesters_id

4.13. Reference violations_context

contextlog	0..*	violationlog
id	<->	context_id

5. Areas

5.1. Request subject area

5.1.1. Tables

- requesters
- apps

5.1.2. References

- permissions_resources
- apps_requesters
- appperm_apps
- appperm_permissions
- policyrules_context
- policyrules_requesters
- policyrules_resources
- actions_resources
- actions_context
- actions_requesters
- violations_resources
- violations_requesters
- violations_context

5.2. Resource subject area

5.2.1. Tables

- resources
- permissions

5.2.2. References

- permissions_resources
- apps_requesters
- appperm_apps
- appperm_permissions
- policyrules_context
- policyrules_requesters
- policyrules_resources
- actions_resources
- actions_context
- actions_requesters
- violations_resources
- violations_requesters

5.3. Logs subject area

5.3.1. Tables

5.3.2. References