schema (migration step)

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https://doc.exponential.earth/learninminutes/exphelp/viewer/examples/migration-steps/schema.md

schema

Makes or drops a table, a column or an index on every engine through the kernel's schema handlers.

A step of a YAML migration with `type: schema`. The class `expMigrationStepSchemaChange` (`kernel/classes/migration/steps/expmigrationstepschemachange.php`) is registered in `settings/migration.ini [StepSettings] StepTypeList[schema]`.

Modes

`mode:` is one of `create_table`, `drop_table`, `add_column`, `drop_column`, `add_index`, `drop_index`; every step names one.

Keys

Key	Type	Modes	Default	What it is
`table`	`string`	all	required	the table (a collection on MongoDB)
`columns`	`any`	create_table, add_index, drop_index		create_table: name => definition (type, length, not_null, default); add_index, drop_index: the columns of the index
`primary_key`	`list`	create_table		the columns of the primary key
`indexes`	`map`	create_table		name => { columns: [...], unique: bool }
`column`	`string`	add_column, drop_column	required	the column
`definition`	`map`	add_column	required	the column: type, length, not_null, default
`index`	`string`	add_index, drop_index	required	the name of the index
`unique`	`bool`	add_index	`false`	a unique index

Besides these, every step takes the keys of the engine: `type`, `mode`, `if`, `references`, `environments`, `engines` and `comment` (the file format). A key of type `identifier` names a node, an object or another part of the installation by id, remote id, path or name (identifiers).

Values for references

`references: { <name>: <value> }` keeps a value of the step's result as `${ref.<name>}` for the steps and migrations after it:

Value	What it is
changed	true when the step changed the schema, false when it found its work done

Undoing

Some steps of this type undo themselves when their migration is rolled back without `down:` (the class says which); a migration with any other step of it needs `down:` or a rollback to its caption.

It touches no cache.

Example

YAML

```yaml
- type: schema
  mode: add_column
  table: exp_news_rating
  column: created
  definition: { type: int, not_null: true, default: 0 }
```

Related

- All step types
- YAML migration steps

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