

Stores info about one event or a serie of events, to be referenced by EventInstance and RecurrenceRule. Event is not directly displayed, instead info is fed to EventInstance, which then displays the event. This design saves space, so descriptions doesn't have to be copied to every instance.

E Event	
●	EventID : INT [PK]
●	StartTime : TIME [NOT NULL]
	EndTime : TIME [NOT NULL]
	Title: VARCHAR(255) [NOT NULL]
	Description : TEXT
	Location : TEXT

E RecurrenceRule	
●	RuleID : INT [PK]
●	EventID : INT [FK, NOT NULL]
●	Frequency : INT(1) [NOT NULL]
●	Interval : INT(4) [NOT NULL DEFAULT 0]
●	StartDate : DATE [NOT NULL]
●	EndDate : DATE [NOT NULL]

Rules for events. Using rulesets, it can take an event and create EventInstances for it. Frequency determines basic recurrence rules. It can be:

- 0: not repeating
- 1: every day
- 2: every week
- 3: every month
- 4: every year
- 5: Xth week of every month
- 6: Xth day of Xth month every year
- 7: Xth week of Xth month every year

Interval determines detailed recurrence rules. Its rulesets change depending on the frequency:

- 0: not applicable
- Every week: 1~7 for weekdays
- Every month: 1~31 for day of the month
- Every year: 1~356 for day in the year
- Xth week of every month: 2 digits, where the first digit is the week number (1-5) and the second digit is the weekday (1=Monday, ... 7=Sunday)
For example: 23 means the 3rd Wednesday of the month
- Xth day of Xth month every year: 4 digits, where the first two digits are the month (01-12) and the last two digits are the day (01-31)
For example: 0305 means March 5th
- Xth week of Xth month every year: 4 digits, where the first two digits are the month (01-12), the third digit is the week of the month (1-5), and the last digit is the weekday (1=Monday, ... 7=Sunday)
For example: 0825 means the 5th Friday of August

An instance of an event. Normally, when displayed, its link to Event is used to fetch the Title, description and location. However, if IsAltered is set to true, then it uses its own data for displaying. This is done so that one event in a recurring event chain can be changed without unlinking it from other events. There is one small loophole where Title can be left empty for EventInstance. This is an issue with the structure, where I want to keep it empty if IsAltered is FALSE, but I still want to enforce its requirement if IsAltered is true. This will have to be enforced in the app logic instead.

E EventInstance	
●	EventInstanceID : INT [PK]
●	EventID : INT [FK, NOT NULL]
●	RuleID : INT [FK, NOT NULL]
●	IsAltered : BOOL [NOT NULL, DEFAULT FALSE]
	StartTime : TIME [NOT NULL]
	EndTime : TIME [NOT NULL]
	Title: VARCHAR(255)
	Description : TEXT
	Location : TEXT

Cascade

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