

## msaSDK Module

**.db.crud.\_sqlmodel**

### Attributes

**sql\_operator\_map** module-attribute

```
sql_operator_map: Dict[str, str] = {
    "=": "__eq__",
    "<=": "__le__",
    "<": "__lt__",
    ">": "__gt__",
    ">=": "__ge__",
    "!": "__ne__",
    "!=": "__ne__",
    "<>": "__ne__",
    "*": "in_",
    "!*": "not_in",
    "~": "like",
    "!~": "not_like",
    "-": "between",
}
```

**sql\_operator\_pattern** module-attribute

```
sql_operator_pattern: Pattern = re.compile(
    "^\\[(<|=|<|>|>=|!|!=|<>|\\*|!\\*|~|!~|-)]$"
)
```

### Classes

#### MSASQLModelCrud

Bases: MSABaseCrud, MSASQLModelSelector

##### Attributes

**create\_fields** class-attribute

```
create_fields: List[SQLModelField] = []
```

db instance-attribute

```
db = (  
    AsyncDatabase(self.engine)  
    if isinstance(self.engine, AsyncEngine)  
    else Database(self.engine)  
)
```

engine instance-attribute

```
engine = engine or self.engine
```

list\_filter class-attribute

```
list_filter: List[SQLModelListField] = []
```

readonly\_fields class-attribute

```
readonly_fields: List[SQLModelListField] = []
```

update\_fields class-attribute

```
update_fields: List[SQLModelListField] = []
```

## Functions

**`__init__`**

```
__init__(  
    model: Type[SQLModel],  
    engine: Union[Engine, AsyncEngine],  
    fields: List[SQLModelListField] = None,  
    router: APIRouter = None,  
) -> None
```

**`on_create_pre`** async

```
on_create_pre(  
    request: Request, obj: MSABaseModel, **kwargs  
) -> Dict[str, Any]
```

### on\_filter\_pre async

```
on_filter_pre(  
    request: Request, obj: MSABaseModel, **kwargs  
) -> Dict[str, Any]
```

### on\_update\_pre async

```
on_update_pre(  
    request: Request,  
    obj: MSABaseModel,  
    item_id: Union[List[str], List[int]],  
    **kwargs  
) -> Dict[str, Any]
```

### route\_create property

```
route_create() -> Callable
```

### route\_delete property

```
route_delete() -> Callable
```

### route\_list property

```
route_list() -> Callable
```

### route\_read property

```
route_read() -> Callable
```

### route\_update property

```
route_update() -> Callable
```

### schema\_name\_prefix property

```
schema_name_prefix()
```

## MSASQLModelSelector

SQLModel Selector

PARAMETER	DESCRIPTION
<code>model</code>	The SQLModel to use <b>TYPE:</b> <code>Type[SQLModel]</code> <b>DEFAULT:</b> <code>None</code>
<code>fields</code>	List of the SQLModelListFields <b>TYPE:</b> <code>List[SQLModelListField]</code> <b>DEFAULT:</b> <code>None</code>

## Attributes

`exclude` class-attribute

```
exclude: List[SQLModelListField] = []
```

Excluded fields list. A list of fields to exclude from the current model.

Supports current SQLModel model fields, current model database table field names Default: []

`fields` instance-attribute

```
fields = list(
    filter(
        lambda x: x
        not in self.parser.filter_infield(self.exclude),
        self.parser.filter_infield(self.fields),
    )
)
```

`link_models` class-attribute

```
link_models: Dict[
    str, Tuple[Type[Table], Column, Column]
] = {}
```

Dictionary of link models. More complex, detailed parsing to be done.

`model` instance-attribute

```
model = model or self.model
```

`ordering` class-attribute

```
ordering: List[
    Union[SQLModelListField, UnaryExpression]
```

```
] = []
```

List of fields sorted by selector. Default: []

parser instance-attribute

```
parser = MSASQLModelFieldParser(self.model)
```

pk instance-attribute

```
pk: InstrumentedAttribute = self.model.__dict__[
    self.pk_name
]
```

pk\_name instance-attribute

```
pk_name: str = (
    self.pk_name
    or self.model.__table__.primary_key.columns.keys()[0]
)
```

## Functions

**`__init__`**

```
__init__(
    model: Type[SQLModel] = None,
    fields: List[SQLModelListField] = None,
) -> None
```

**`calc_filter_clause`**

```
calc_filter_clause(
    data: Dict[str, Any]
) -> List[BinaryExpression]
```

**`get_link_clause`** async

```
get_link_clause(
    request: Request,
    link_model: str = None,
    link_item_id: Union[int, str] = Query(
        None,
        title="pk",
        example="1,2,3",
        description="Link Model Primary key or list of primary keys",
    ),
)
```

```
),  
) -> Optional[Any]
```

**get\_select** async

```
get_select(request: Request) -> Select
```

## Functions

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