Table Type

Alex Gönczy

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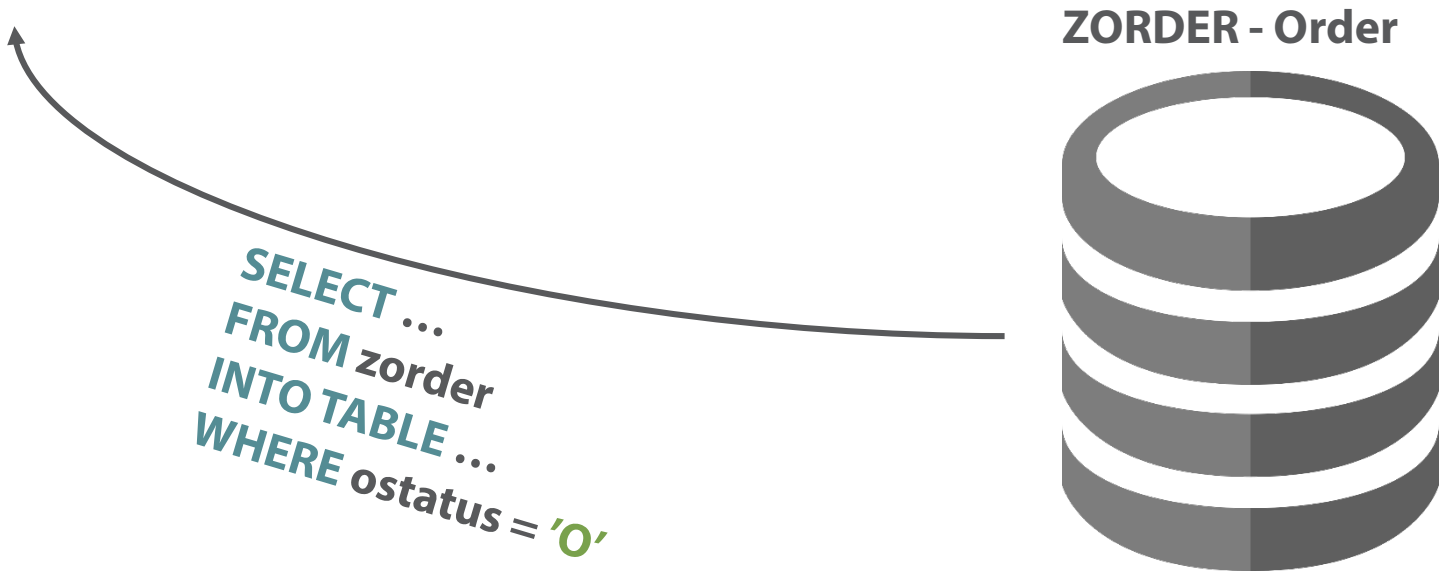
Internal Table

OPEN_ORDERS – Open Orders

Order ID	Customer ID	First Name	…
O000000001	C000000020	Jessamine	…
O000000002	C000000037	Tate	…
O000000003	C000000014	Quintessa	…
O000000004	C000000004	Sarah	…



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Line Type

ABAP Dictionary Types

- Data Element
- Structure
- Table Type
- Database Table
- View

Built-in Types

- INT1
- INT2
- INT4
- DEC
- CURR
- CUKY
- QUAN
- UNIT
- PREC
- ...

Reference Types

- Class
- Interface

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Access Mode

	Standard Table	Sorted Table	Hash Table
Arranged By	Sequentially	Key	Hash Function
Index Access	Yes	Yes	No
Key Access	Sequential Search	Binary Search	Hash Function
Uniqueness	Non-Unique	Unique & Non-Unique	Unique
Accessed By	Mostly Index	Mostly Key	Only Key

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Keys

Key Definition
Standard Key
Line Type
Key Components
Not Specified

Key Category
Unique
Non-Unique
Not Specified

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Field

Work Area

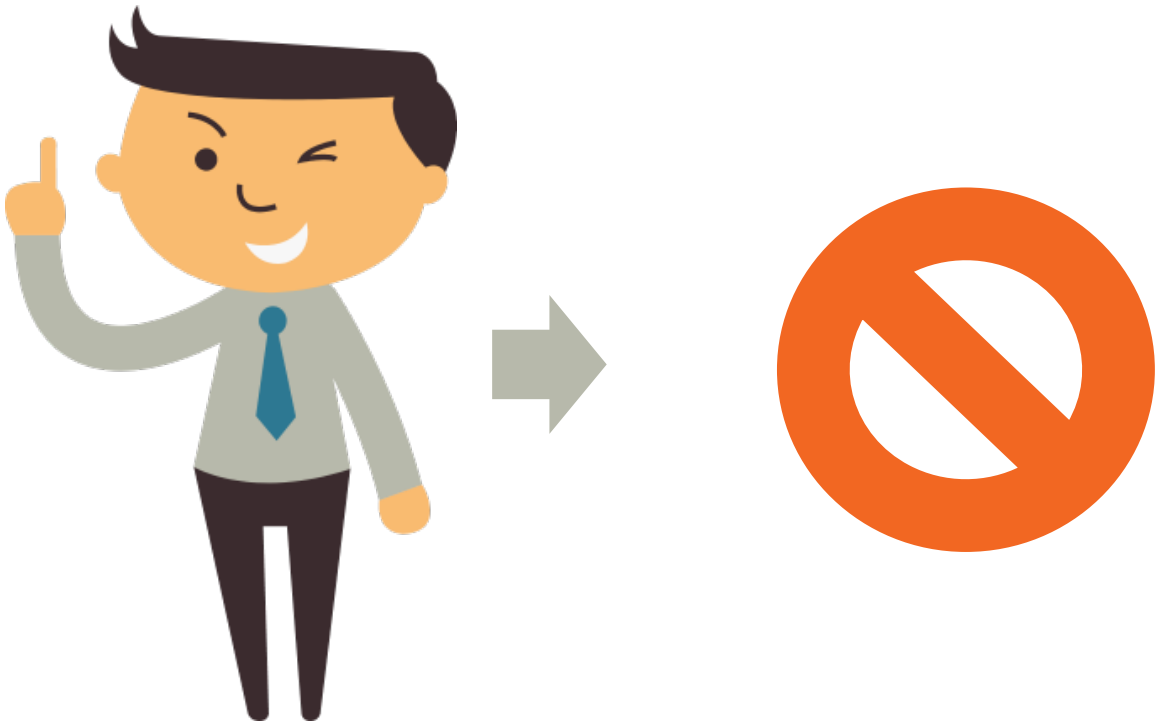
Internal Table

```
DATA order_status   TYPE zostatus.

DATA open_order     TYPE zorder_str.

DATA open_orders    TYPE zorder_tt.
```

Development Workflow

ZORDER_TT
Orders

ZORDERITEM_TT
Order Items



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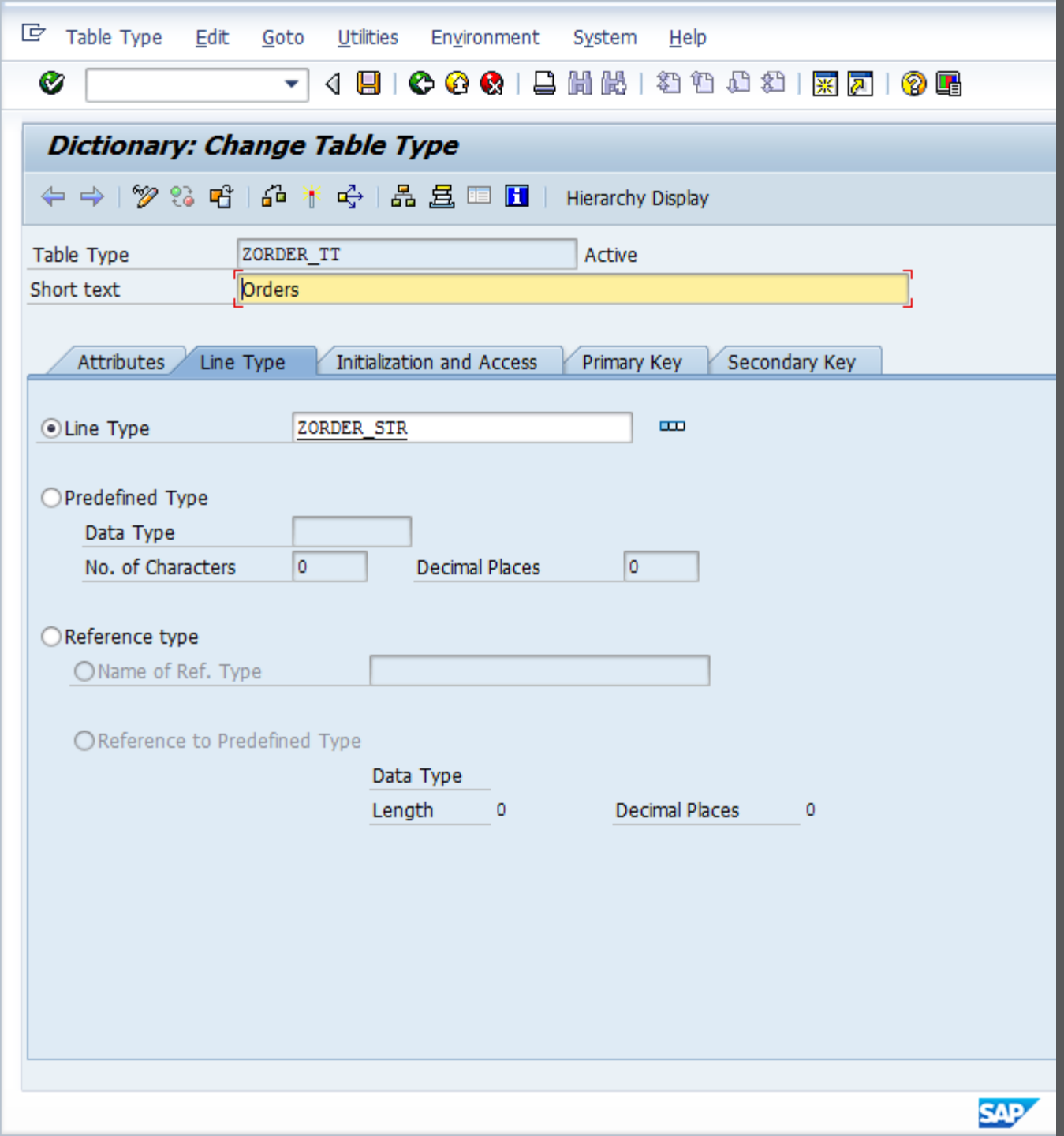

ZORDER_TT

Orders

Line Type	ZORDER_STR
Access	Standard Table
Primary Key	–
Secondary Key	–

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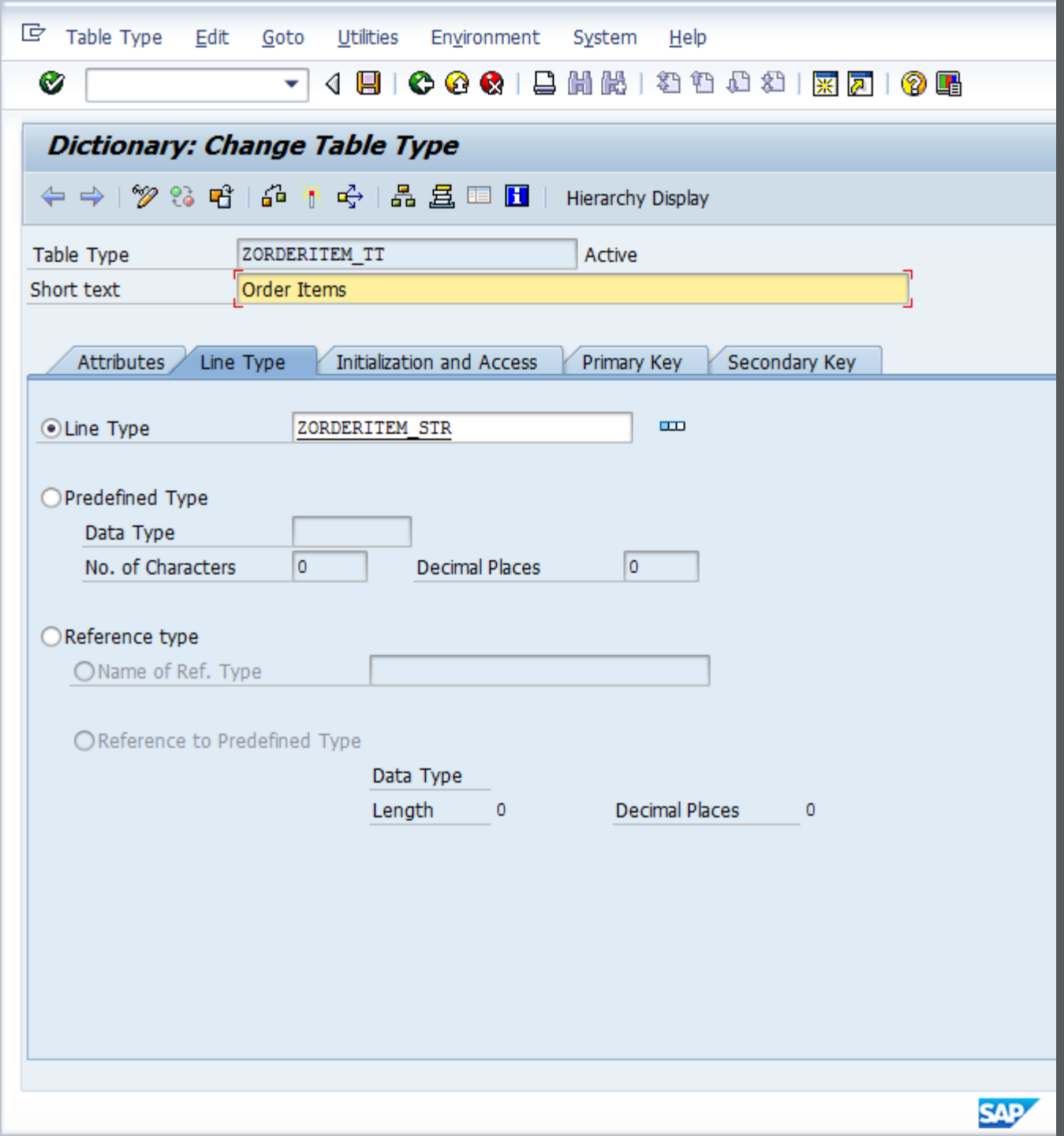

ZORDERITEM_TT

Order Items

Line Type	**ZORDERITEM_STR**
Access	**Standard Table**
Primary Key	**–**
Secondary Key	**–**

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Table Type Edit Goto Utilities Environment System Help

Dictionary: Change Table Type

Hierarchy Display

Table Type ZORDERITEM_TT Active

Short text Order Items

Attributes | Line Type | Initialization and Access | Primary Key | Secondary Key

Line Type ZORDERITEM_STR

Predefined Type

Data Type

No. of Characters 0 Decimal Places 0

Reference type

Name of Ref. Type

Reference to Predefined Type

Data Type

Length 0 Decimal Places 0

ZORDERITEM_TT

Order Items

Line Typ

Access

Primary

Seconda

Next

Complex Data Types: Table Type

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Table Type

Complex Data Types: Table Type

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Internal Table

OPEN_ORDERS – Open Orders

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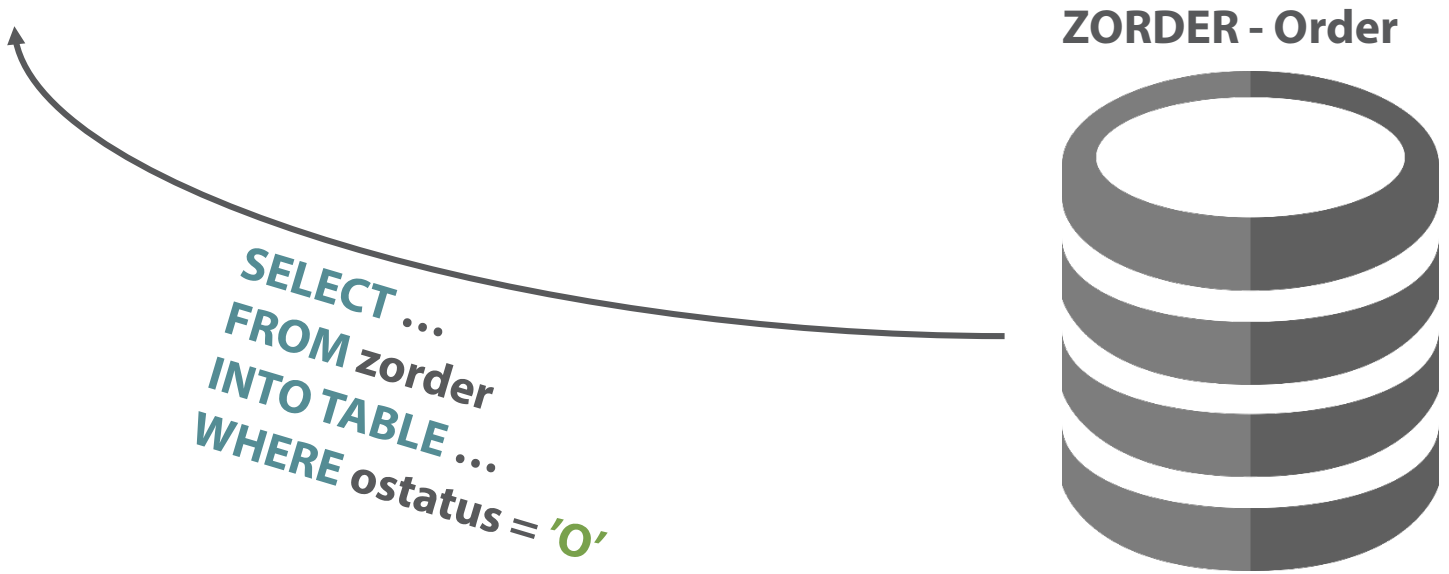

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```
DATA open_orders TYPE zorder_tt.
```

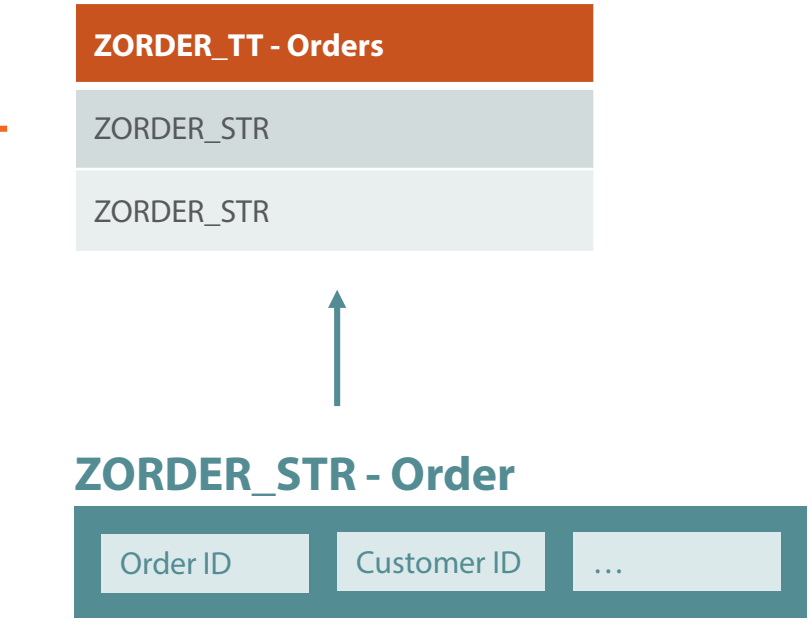

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Table Type Attributes

Line Type | Access Mode | Key

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Line Type

ABAP Dictionary Types

- Data Element
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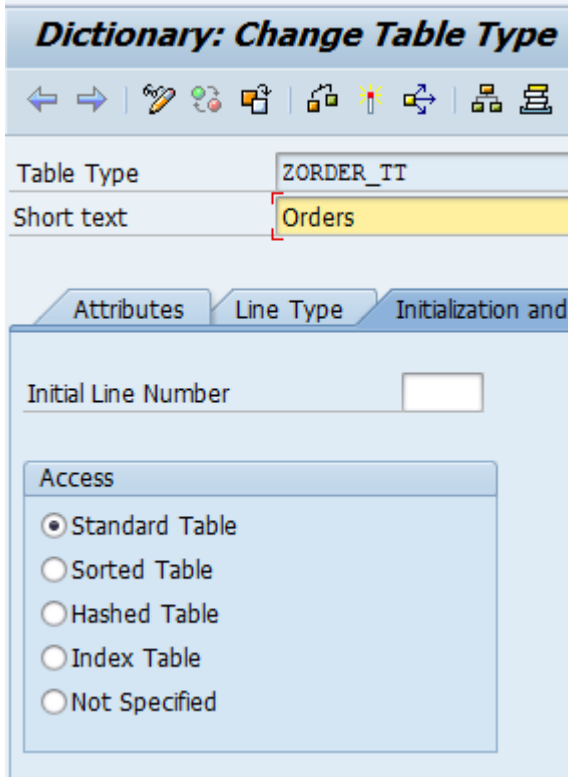
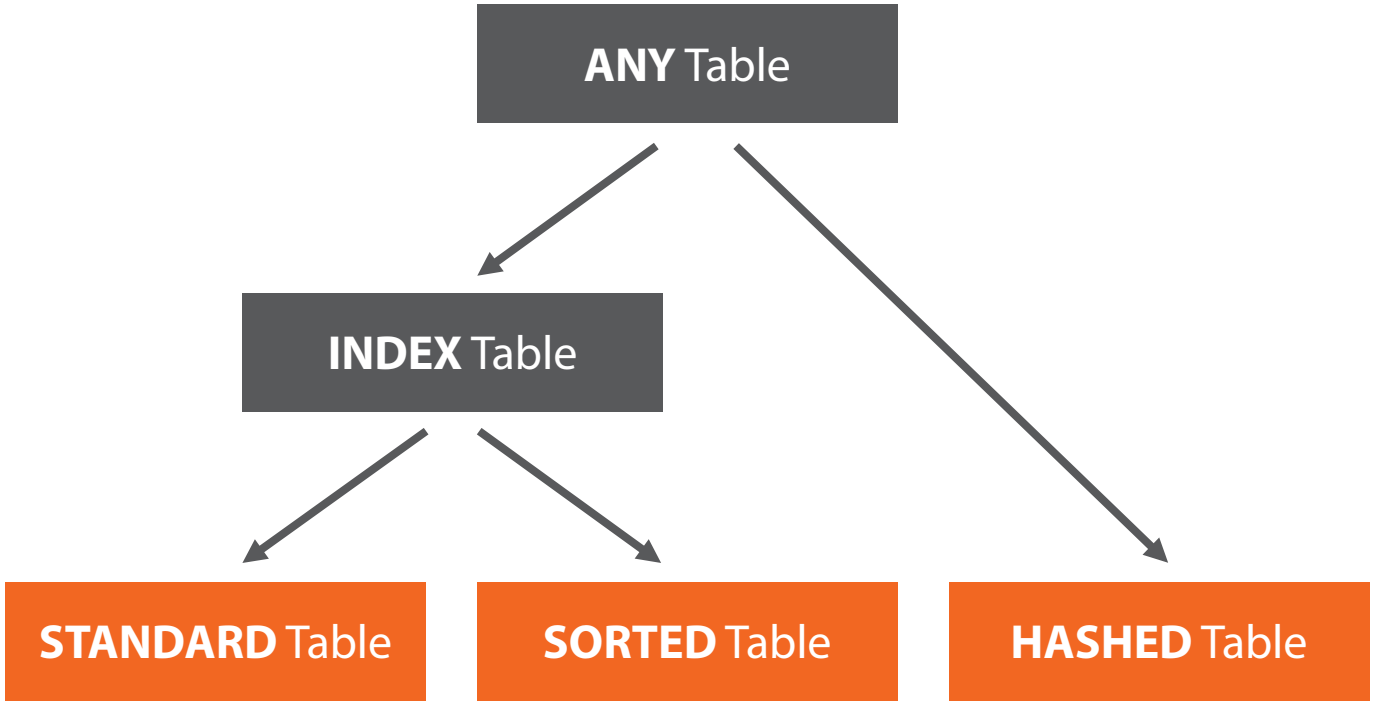
Access Mode





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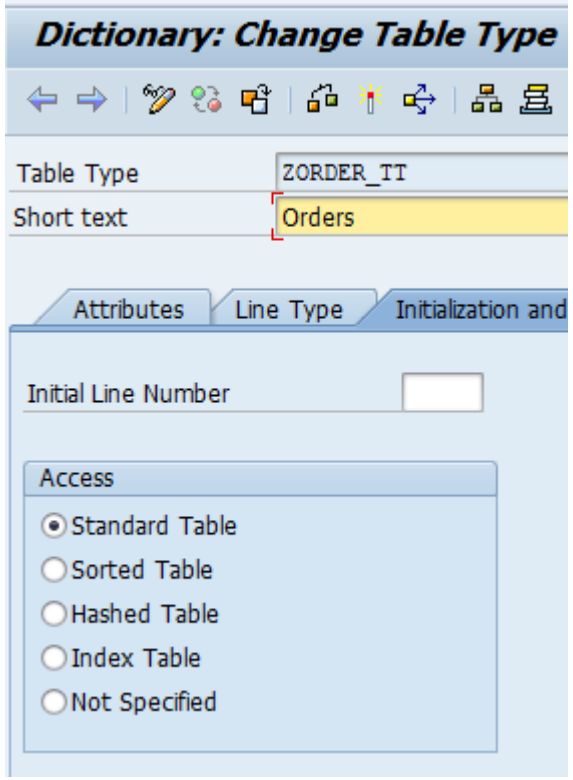
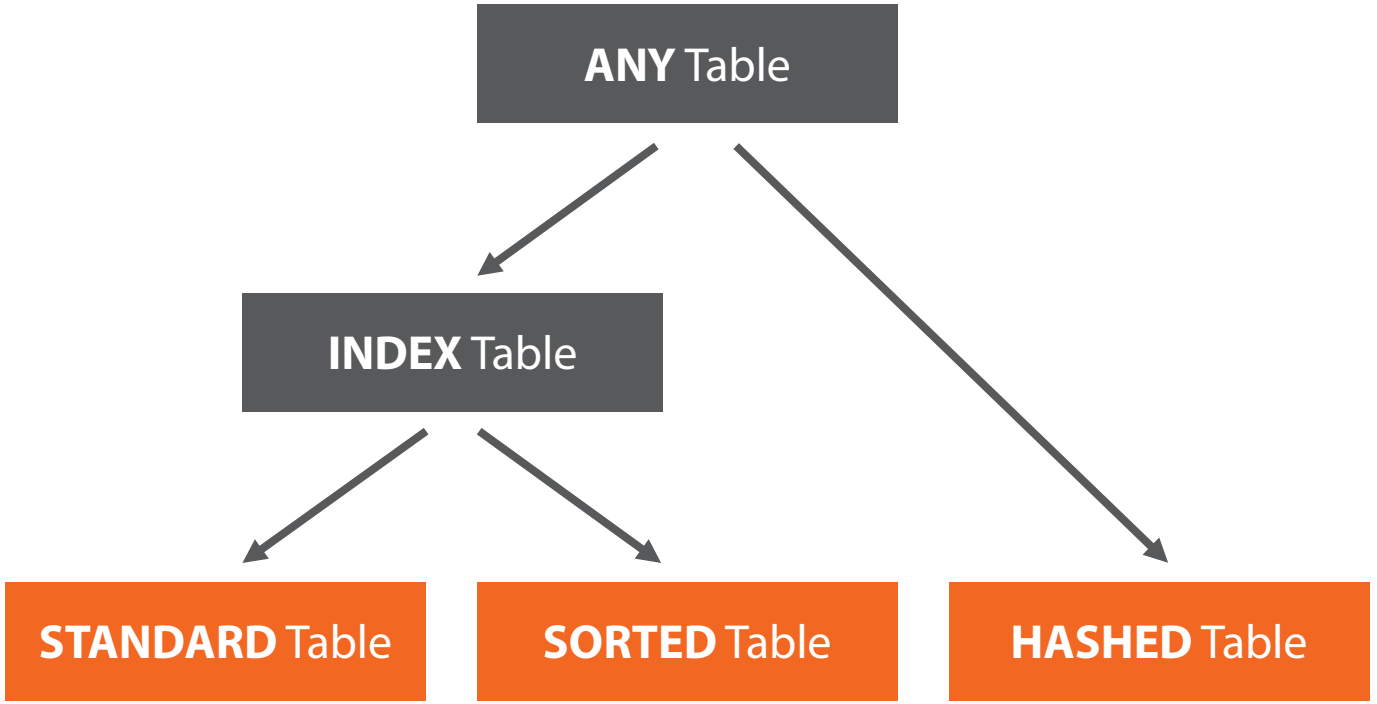
Access Mode





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Access Mode

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Arranged By	Sequentially	Key	Hash Function
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Access Mode

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Accessed By	Mostly Index	Mostly Key	Only Key

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Keys

Key Definition	Key Category
Standard Key	
Line Type	
Key Components	
Not Specified	

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Keys

Key Definition
Standard Key
Line Type
Key Components
Not Specified

Key Category
Unique
Non-Unique
Not Specified

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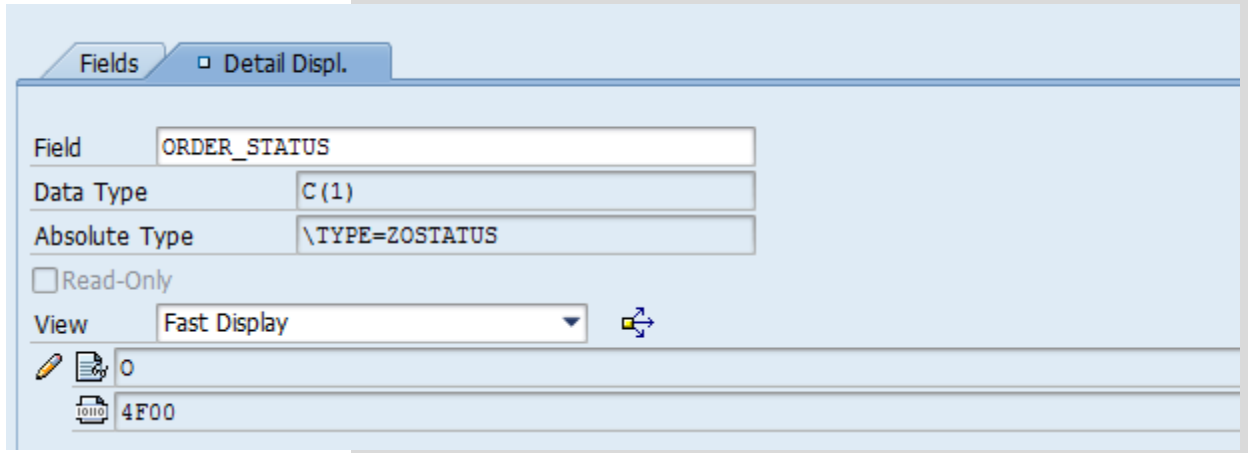
Field

```
DATA order_status   TYPE zostatus.
```

Field

DATA order_status TYPE zostatus.



Field

Work Area

```
DATA order_status   TYPE zostatus.

DATA open_order     TYPE zorder_str.
```

Field

DATA order_status TYPE zostatus.

Work Area

Struct. OPEN_ORDER

Struc. Type Structure: flat, not charlike(306)

Exp.	Component	Val...	Val.	Ch...	Technical Type	Hexadecimal Value	Absolute Type	Re...
	ORDERID		0000000001		C(10)	4F003000300030003000300030003000300030...	\TYPE=ZORDERID	
	CUSTOMERID		C000000020		C(10)	43003000300030003000300030003000300032...	\TYPE=ZCUSTOM...	
	CUSTNAME		Jessamine Chambers		C(60)	4A006500730073006100 6D0069006E0065...	\TYPE=ZCUSTNA...	
	FIRSTNAME		Jessamine		C(30)	4A006500730073006100 6D0069006E0065...	\TYPE=ZFIRSTNA...	
	LASTNAME		Chambers		C(30)	4300680061006D006200650072007300 20...	\TYPE=ZLASTNA...	
	ORDDATE		20130828		D(8)	32003000310033003000380032003800	\TYPE=ZORDDATE	
	TOTALPRICE		285.05		P(8) DECIMALS 2	000000000028505C	\TYPE=ZTOTALP...	
	OSTATUS		O		C(1)	4F00	\TYPE=ZOSTATUS	

Field

Work Area

Internal Table

```
DATA order_status   TYPE zostatus.

DATA open_order     TYPE zorder_str.

DATA open_orders    TYPE zorder_tt.
```

Field

DATA order_status TYPE zostatus.

Wor

Internal Table

DATA open_orders TYPE zorder_tt.

Table OPEN_ORDERS

Attributes Standard [10x8(306)]

Columns ...

Row	ORDERID [C(10)]	CUSTOMERID [C(10)]	CUSTNAME [C(60)]	FIRSTNAME [C(30)]	LASTNAME [C(30)]	ORDDATE [D(8)]	TOTALPRICE [P(8) DEC 2]	OSTATUS [C(1)]
1	0000000001	C000000020	Jessamine Chambers	Jessamine	Chambers	20130828	285.05	O
2	0000000002	C000000037	Tate Emerson	Tate	Emerson	20140430	46.18	C
3	0000000003	C000000014	Quintessa Ramirez	Quintessa	Ramirez	20131204	49.95	C
4	0000000004	C000000004	Sarah Gaines	Sarah	Gaines	20140407	139.84	O
5	0000000005	C000000032	Demetria Henry	Demetria	Henry	20140728	255.37	O
6	0000000006	C000000045	Wanda Burt	Wanda	Burt	20140223	72.72	O
7	0000000007	C000000039	Derek Bullock	Derek	Bullock	20130821	387.36	O
8	0000000008	C000000012	Nita Hampton	Nita	Hampton	20140704	64.62	O
9	0000000009	C000000048	Jena Pruitt	Jena	Pruitt	20140809	81.34	C
10	0000000010	C000000034	Brooke Wiley	Brooke	Wiley	20131225	720.26	O

Field

Work Area

Internal Table

```
DATA order_status   TYPE zostatus.

DATA open_order

DATA open_orders   TYPE zor
```

Next
Development Workflow: Table Type

Table Type

Development Workflow: Table Type

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List of Potential Table Types

ZORDER_TT
Orders

ZORDERITEM_TT
Order Items

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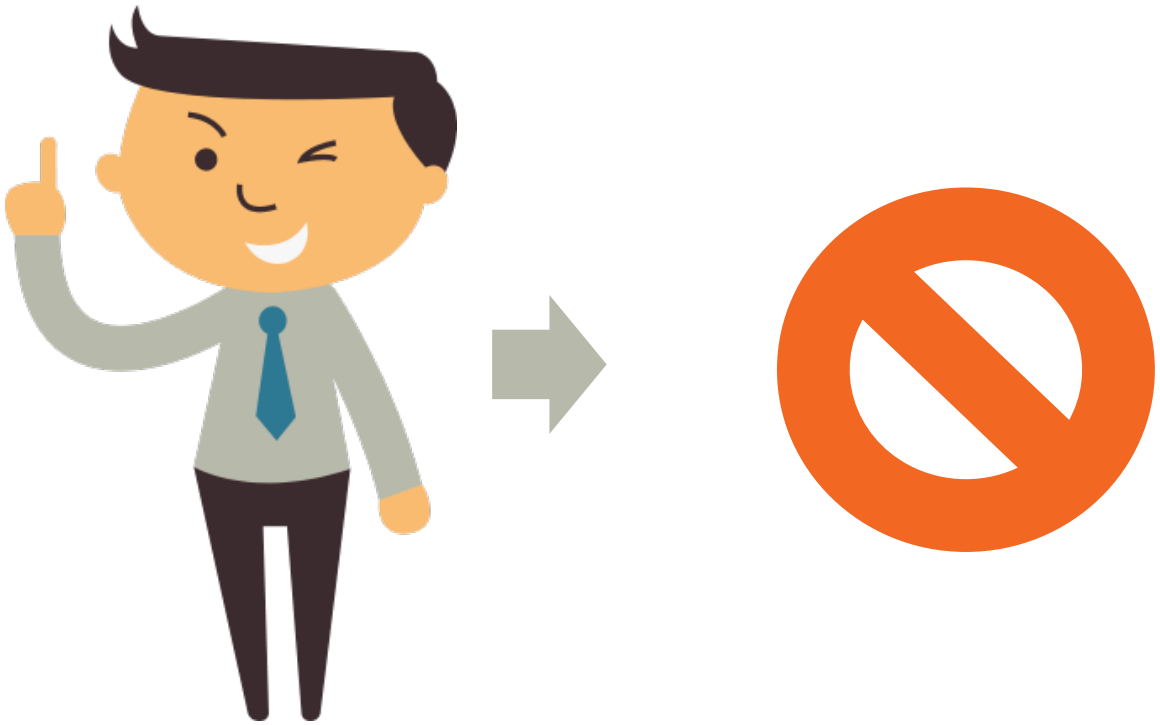
Development Workflow

ZORDER_TT
Orders

ZORDERITEM_TT
Order Items



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Development Workflow

ZORDER_TT

Orders

ZORDERITEM_TT

Order Items

Next

Demo: Creating Table Types

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Group Exercises

Attendee

Instructor

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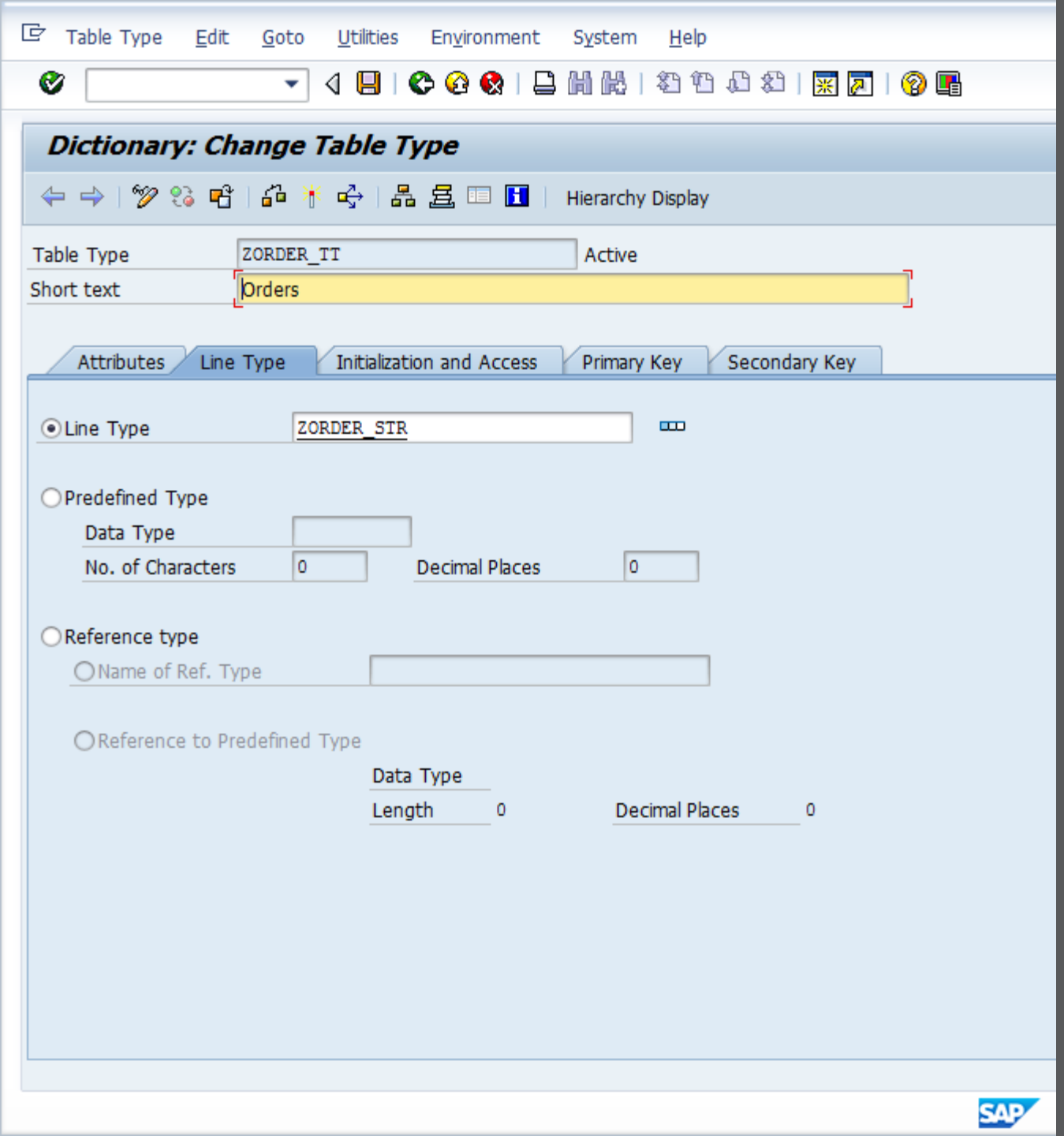

ZORDER_TT

Orders

Line Type	ZORDER_STR
Access	Standard Table
Primary Key	–
Secondary Key	–

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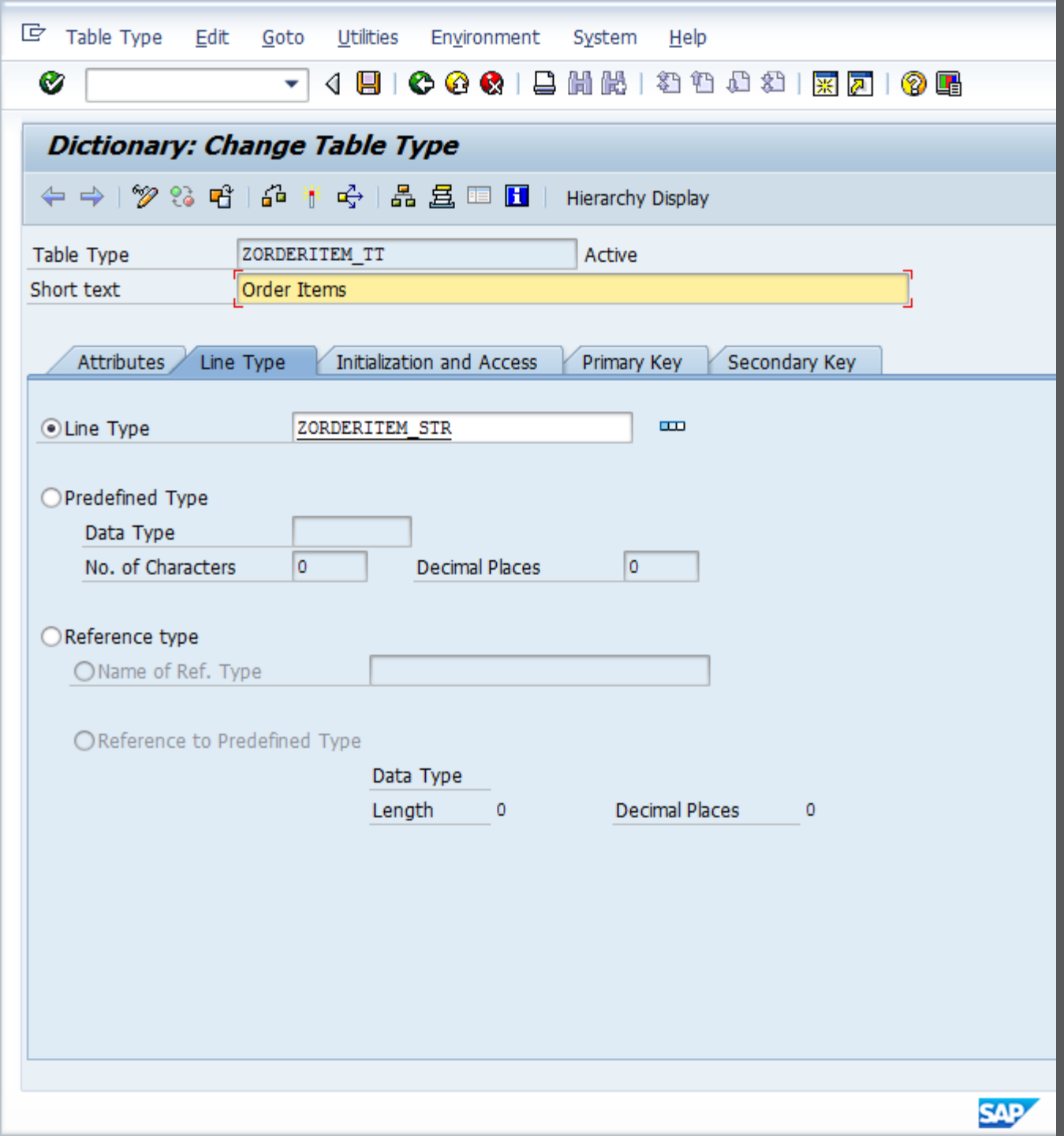

ZORDERITEM_TT

Order Items

Line Type	**ZORDERITEM_STR**
Access	**Standard Table**
Primary Key	**–**
Secondary Key	**–**

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```
DATA open_orders TYPE zorder_tt.
```

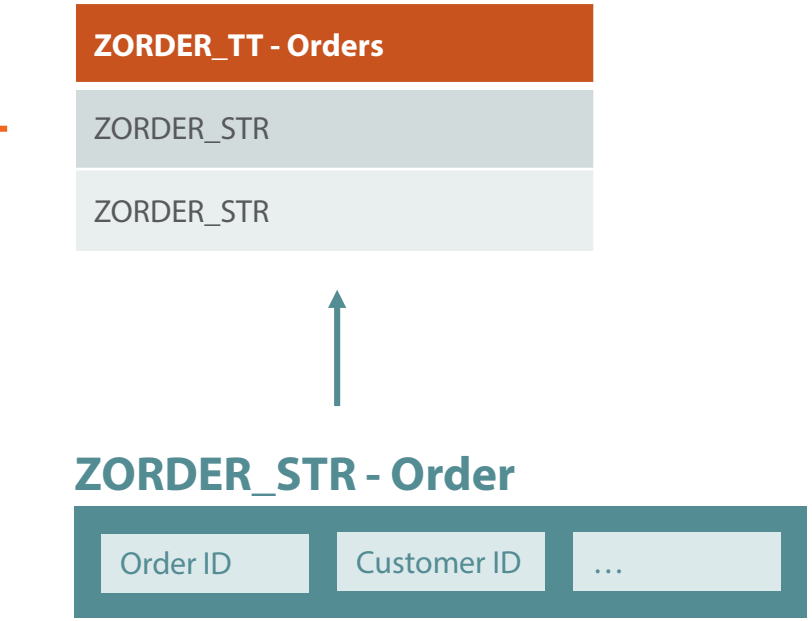

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Table Type Attributes

Line Type | Access Mode | Key

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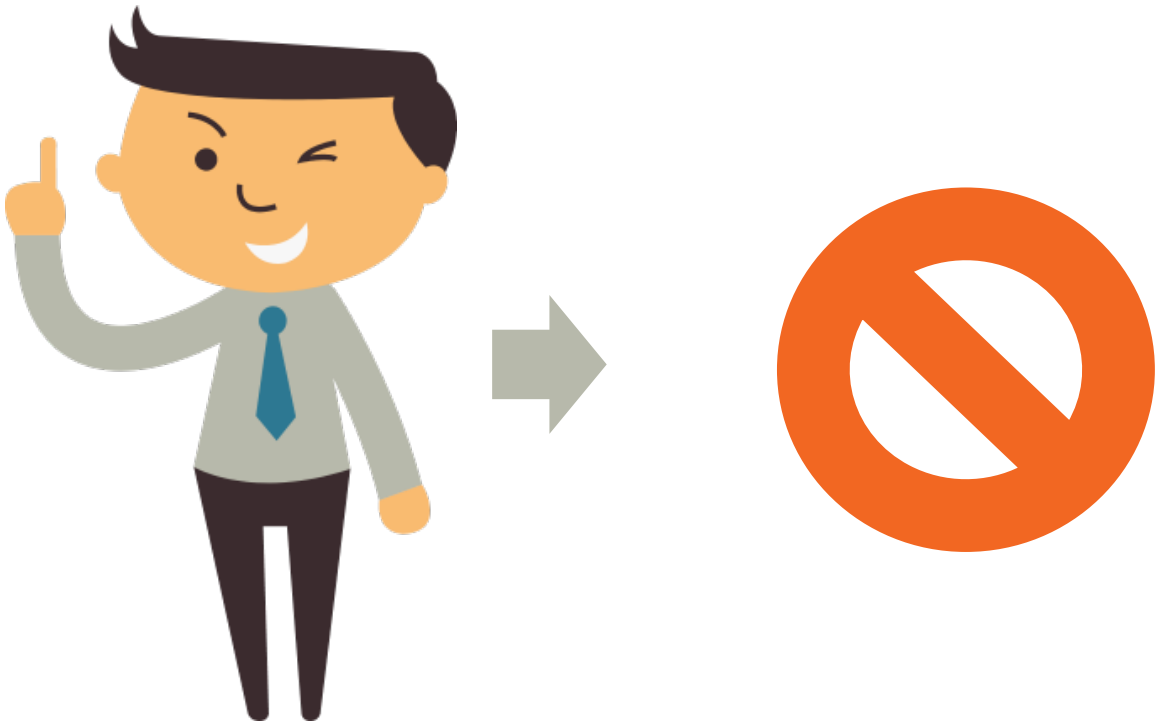
Development Workflow

ZORDER_TT
Orders

ZORDERITEM_TT
Order Items



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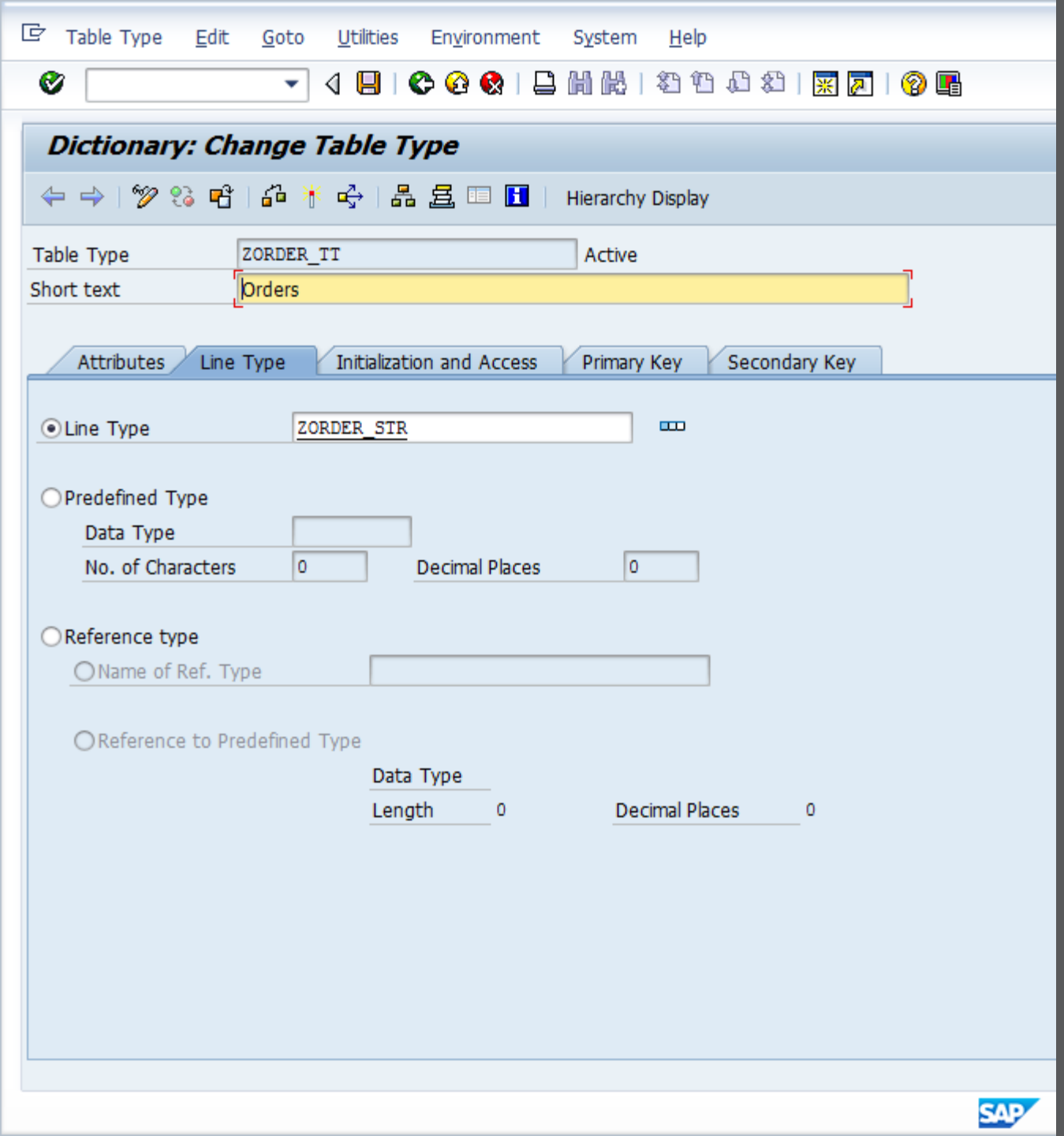
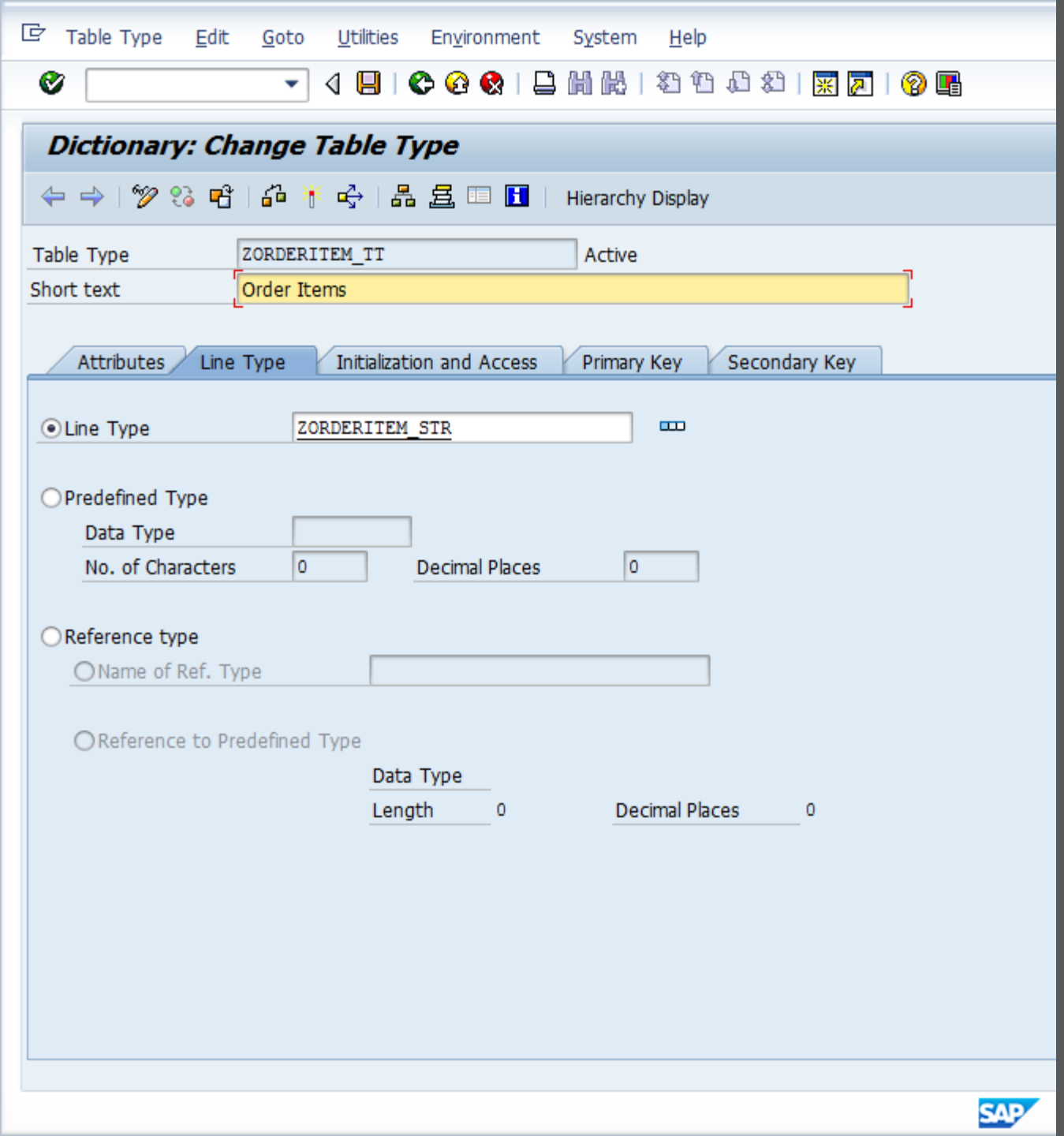


ZORDER_TT

Orders

Line Type	ZORDER_STR
Access	Standard Table
Primary Key	–
Secondary Key	–

pluralsight



ZORDERITEM_TT

Order Items

Line Type	**ZORDERITEM_STR**
Access	**Standard Table**
Primary Key	**–**
Secondary Key	**–**

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ZORDER_TT - Orders

ZORDER_STR

ZORDER_STR

ABAP Program #1

```
TYPES order_tt TYPE
   HASHED TABLE OF zorder_str
   WITH UNIQUE KEY orderid
   WITH NON-UNIQUE SORTED KEY
name
   COMPONENTS firstname lastname.

DATA open_orders TYPE order_tt.
```

ABAP Program #2

```
TYPES order_tt TYPE
   HASHED TABLE OF zorder_str
   WITH UNIQUE KEY orderid
   WITH NON-UNIQUE SORTED KEY
name
   COMPONENTS firstname lastname.

DATA open_orders TYPE order_tt.
```

ABAP Program #3

```
TYPES order_tt TYPE
   HASHED TABLE OF zorder_str
   WITH UNIQUE KEY orderid
   WITH NON-UNIQUE SORTED KEY
name
   COMPONENTS firstname lastname.

DATA open_orders TYPE order_tt.
```

ABAP Program #4

```
TYPES order_tt TYPE
   HASHED TABLE OF zorder_str
   WITH UNIQUE KEY orderid
   WITH NON-UNIQUE SORTED KEY
name
   COMPONENTS firstname lastname.

DATA open_orders TYPE order_tt.
```

ABAP Program #5

```
TYPES order_tt TYPE
   HASHED TABLE OF zorder_str
   WITH UNIQUE KEY orderid
   WITH NON-UNIQUE SORTED KEY
name
   COMPONENTS firstname lastname.

DATA open_orders TYPE order_tt.
```

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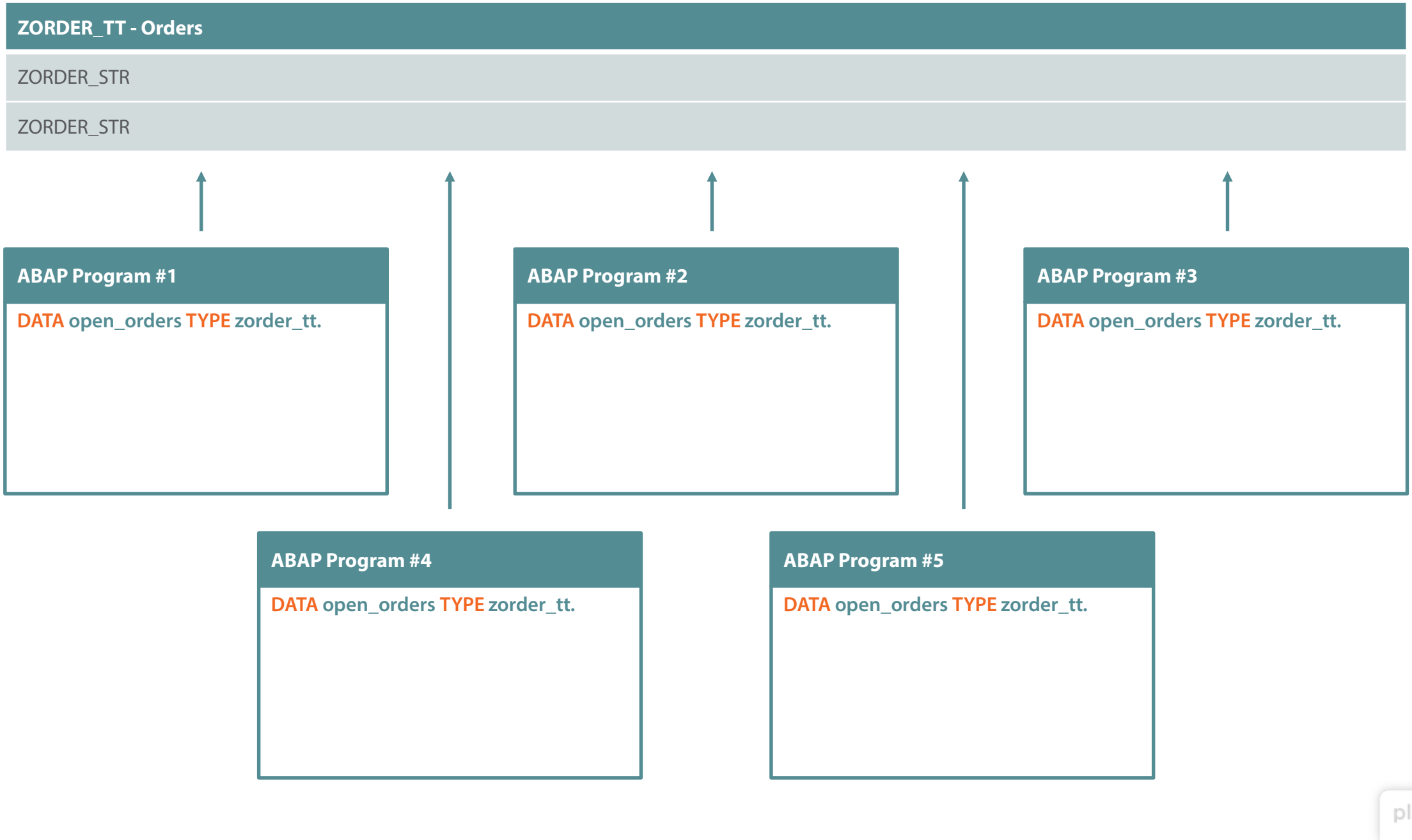

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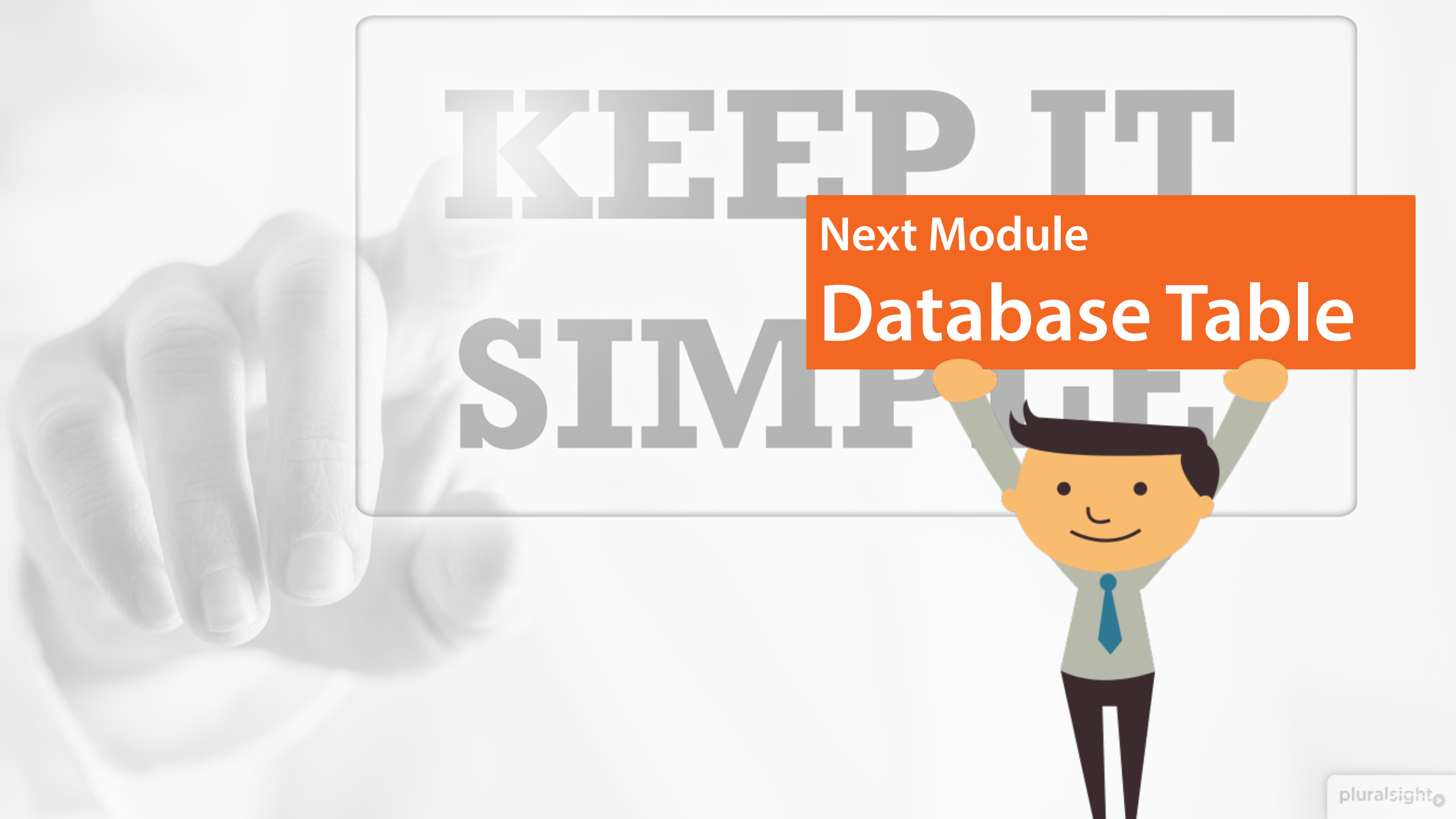
KEEP IT
SIMPLE


KEEP IT
SIMPLE
Next Module
Database Table