

1) Primary Keys:

CUSTOMER - {CUST\_NO}  
SALES\_ORDER - {ORDER\_NO}  
PRODUCT - {PROD\_NO}  
SALES\_ORDER\_LINE - {ORDER\_NO, PROD\_NO}

Foreign Keys:

CUSTOMER - None  
SALES\_ORDER - {CUST\_NO}  
PRODUCT - {PROD\_NO}  
SALES\_ORDER\_LINE - {ORDER\_NO} and {PROD\_NO}

2) Schema for CUSTOMER: CUSTOMER(CUST\_NO, NAME, ADDRESS)

3) The added tuple breaks the relational integrity because the added value for CUST\_NO does not exist in the primary key column of CUST\_NO for CUSTOMER.

4) ORDER\_NO<01, 02, 09, ...>

PROD\_NO<p1, p2, p3, ...>

NAME<ALEX, BOB, CAROL, ...>

DATE<11/11/17, 7/9/17, 8/16/17, ...>