# Database Design

## ERD

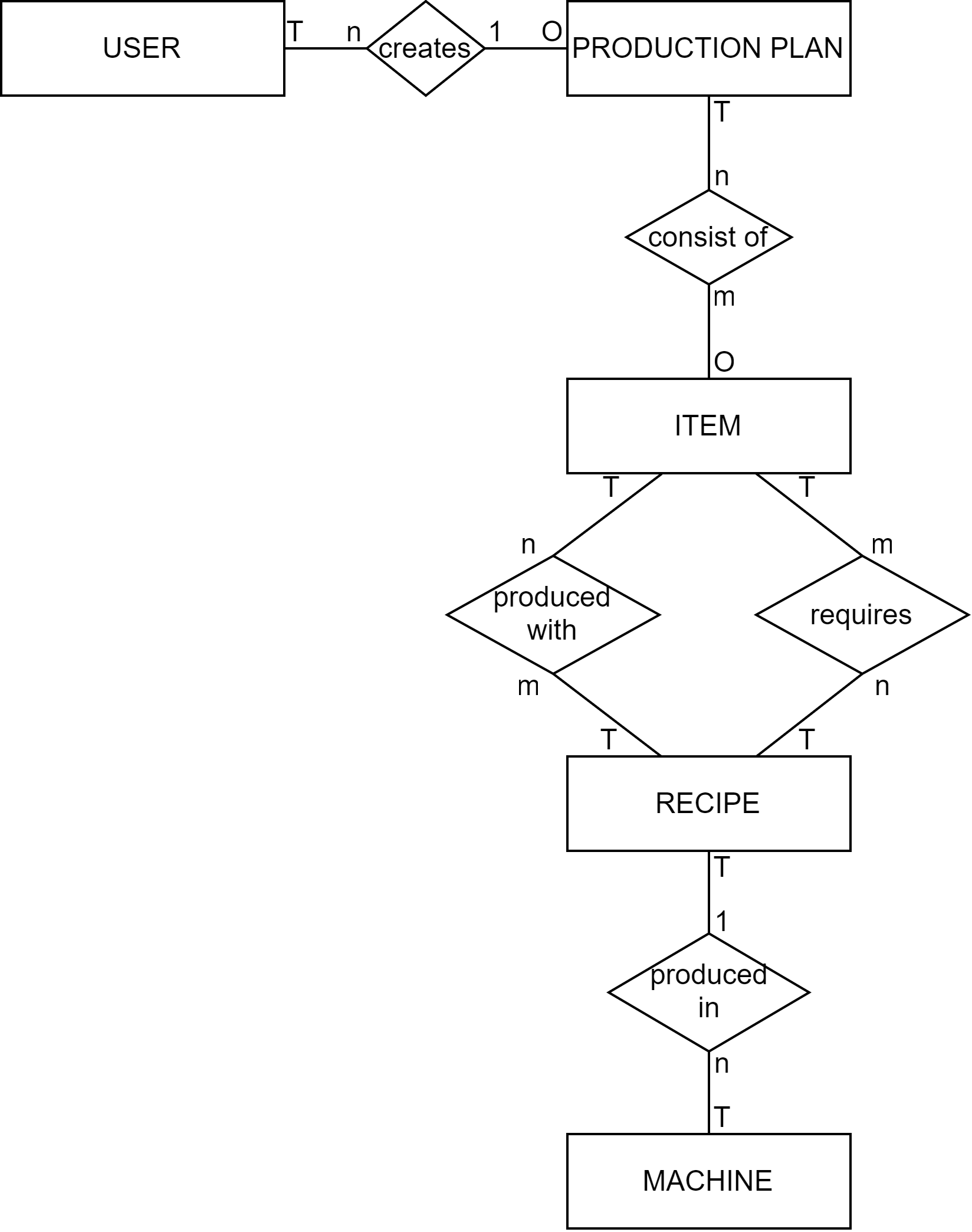


Figure 1.1 ERD

Attribute list:

USER : id, email, password

PRODUCTION PLAN : id, display\_name

ITEM : id, display\_name, icon\_name, category, display\_order

RECIPE : id, display\_name

MACHINE : id, display\_name, icon\_name

creates :

consists of : amount

produced with : amount, is\_standard\_recipe

requires: : amount

produced in :

## Relational Model

USER (**id**, email, password)

PRODUCTION PLAN (**id**, ***created\_by***)

foreign key '***created\_by***' refers to ***id*** in USER, NULL not allowed

ITEM (**id**, display\_name, icon\_name, category, display\_order)

RECIPE (**id**, ***produced\_*in**, display\_name)

foreign key '***produced\_*in**' refers to ***id*** in MACHINE, NULL not allowed

MACHINE (**id**, display\_name, icon\_name)

PRODUCTION PLAN CONTENT (consist\_of) (***plan\_id***, ***item\_id***, amount)

foreign key '***plan\_id***' refers to ***id*** in PRODUCTION PLAN, NULL not allowed

foreign key '***item\_id***' refers to ***id*** in ITEM, NULL not allowed

RECIPE OUTPUT (produced with) (***recipe\_id***, ***item\_id****,* amount,is\_standard\_recipe)

foreign key '***recipe\_id***' refers to **id** in RECIPE, NULL not allowed

foreign key '***item\_id***' refers to **id** in ITEM, NULL not allowed

RECIPE INPUT (requires) (***recipe\_id***, ***item\_id****,* amount)

foreign key '***recipe\_id***' refers to **id** in RECIPE, NULL not allowed

foreign key '***item\_id***' refers to **id** in ITEM, NULL not allowed

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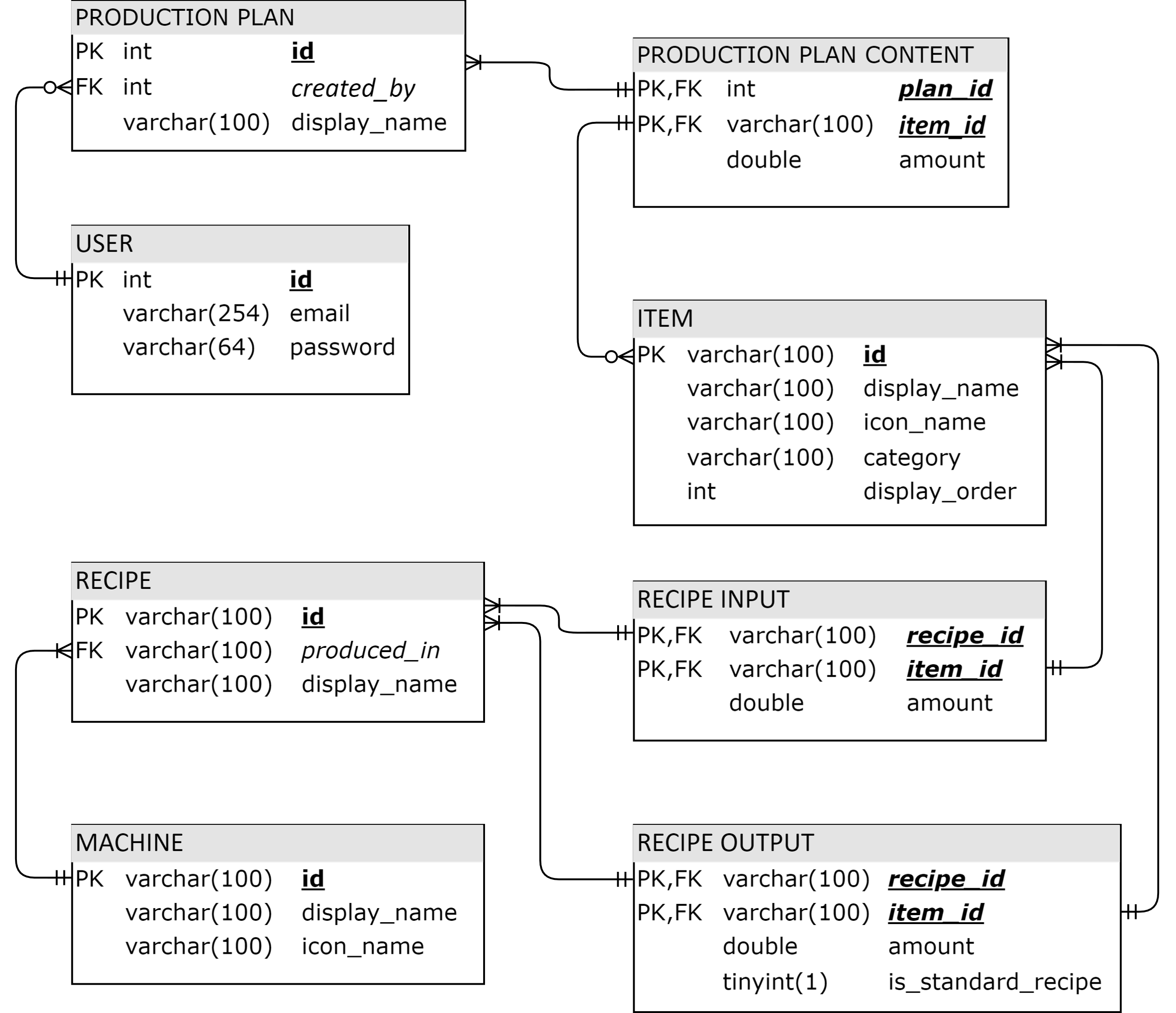
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Figure 1.2 Database Design