

Design Portfolio

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UNF

OWNER (owner_no, owner_given_name, owner_fam_name, owner_adress, (prop_no, prop_address, prop_value, prop_year_built, prop_fully_furnished, (insurer_code, insurer_name, policy_start_date, policy_len, policy_type_code, policy_type_desc)))

Repeating Group:

- (prop_no, prop_address, prop_value, prop_year_built, prop_fully_furnished, (insurer_code, insurer_name, policy_start_date, policy_len, policy_type_code, policy_type_desc)))
- (insurer_code, insurer_name, policy_start_date, policy_len, policy_type_code, policy_type_desc)

1NF

OWNER (owner_no, owner_given_name, owner_fam_name, owner_adress)

PROPERTY (prop_no, prop_address, prop_value, prop_year_built, prop_fully_furnished, owner_no)

INSURER (prop_no, insurer_code, insurer_name, policy_start_date, policy_len, policy_type_code, policy_type_desc)

*note that there are 2 candidate keys for PROPERTY table:

- prop_no

- prop_address

Partial Dependency:

- prop_no, policy_start_date, policy_type_code -> policy_type_desc, policy_len, insurer_code, insurer_name
- policy_type_code -> policy_type_desc

2NF

OWNER (owner_no, owner_given_name, owner_fam_name, owner_adress)

PROPERTY (prop_no, prop_address, prop_value, prop_year_built, prop_fully_furnished)

INSURER (prop_no, insurer_code, insurer_name, policy_start_date, policy_len, policy_type_code, policy_type_desc)

POLICY_TYPE (policy_type_code, policy_type_desc)

Transitive Dependency:

- prop_address -> prop_value, prop_year_built, prop_fully_furnished
- insurer_code -> insurer_name

3NF

OWNER (owner_no, owner_given_name, owner_fam_name, owner_adress)

PROPERTY (prop_no, prop_address, prop_value, prop_year_built, prop_fully_furnished)

INSURER (insurer_code, insurer_name)

POLICY (prop_no, policy_start_date, policy_type_code, policy_len)

POLICY_TYPE (policy_type_code, policy_type_desc)

Full Dependency:

- owner_no -> owner_given_name, owner_fam_name, owner_adress
- prop_no -> prop_address, prop_value, prop_year_built, prop_fully_furnished
- insurer_code -> insurer_name
- prop_no, policy_start_date, policy_type_code -> policy_len
- policy_type_code -> policy_type_desc

Entity Assimilation

Collected 3NF Relations:

1. **OWNER** (owner_no, owner_given_name, owner_fam_name, owner_adress)
2. **PROPERTY** (prop_no, prop_address, prop_value, prop_year_built, prop_fully_furnished)
3. **INSURER** (insurer_code, insurer_name)
4. **POLICY** (prop_no, policy_start_date, policy_type_code, policy_len)
5. **POLICY_TYPE** (policy_type_code, policy_type_desc)