Functional Dependencies:
- {agency_code} -> {agency_name, agency_abbr}
- {loan_type} -> {loan_type_name}
- {property_type} -> {property_type_name}
- {loan_purpose -> {loan_purpose_name}
- {owner_occupancy} -> {owner_occupancy_name}
- {preapproval} -> {preapproval_name}
- {action_taken} -> {action_taken_name}
- {state_code} -> {state_name, state_abbr}
- {county_code} -> {county_name}
- {msamd} -> {msamd_name}
- {census_tract_number} -> {population, minority_population, hud_median_family_income, tract_to_msamd_income}
- {applicant_ethnicity} -> {applicant_ethnicity_name}
- {co_applicant_ethnicity} -> {co_applicant_ethnicity_name}
- {applicant_race_1} -> {applicant_race_name_1}
- {co_applicant_race_1} -> {co_applicant_race_name_1}
- {applicant_race_2} -> {applicant_race_name_2}
- {co_applicant_race_2} -> {co_applicant_race_name_2}
- {applicant_race_3} -> {applicant_race_name_3}
- {co_applicant_race_3} -> {co_applicant_race_name_3}
- {applicant_race_4} -> {applicant_race_name_4}
- {co_applicant_race_4} -> {co_applicant_race_name_4}
- {applicant_race_5} -> {applicant_race_name_5}
- {co_applicant_race_5} -> {co_applicant_race_name_5}
- {applicant_sex} -> {applicant_sex_name}
- {co_applicant_sex} -> {co_applicant_sex_name}
- {purchaser_type} -> {purchaser_type_name}
- {denial_reason_1} ->{ denial_reason_name_1}
- {denial_reason_2} -> {denial_reason_name_2}
- {denial_reason_3} -> {denial_reason_name_3}
- {hoepa_status} -> {hoepa_status_name}
- {lien_status} -> {lien_status_name}
- {edit_status} -> {edit_status_name}

Normalized Tables:

- Loan_Type(loan_type, loan_type_name)
- Location(location_id, county_code, msamd, state_code, census_tract_number, population, minority_population, hud_median_family_income, tract_to_msamd_income, number_of_owner_occupied_units, number_of_1_to_4_family_units)
- Property_Type(property_type, property_type_name)
- Loan_Purpose(loan_purpose, loan_purpose_name)
- Agency(agency_code, agency_name, agency_abbr)
- OwnOcc(owner_occupancy, owner_occupancy_name)
- PreApprove(preapproval, preapproval_name)
- Action_Taken(action_taken, action_taken_name)
- MSAMD(msamd, msamd_name)
- State(state_code, state_name, state_abbr)
- County(county_code, county_name)
- Census(census_tract_number, population, minority_population, hud_median_family_income, tract_to_msamd_income)
- Race(race_number, race_name)
- Ethnicity(ethnicity_number, ethnicity_name)
- Sex(sex_code, sex_name)
- PurchaserType(purchaser_type, purchaser_type_name)
- Denial_Reason(reason_code, denial_reason_name)
- HOEPA(hoepa_status, hoepa_status_name)
- Lien(lien_status, lien_status_name)
- Edit(edit_status, edit_status_name)
- Nulls(
- Loan(id, as_of_year, respondent_id, agency_code, loan_type, property_type, loan_purpose, owner_occupancy, loan_amount_000s, preapproval, action_taken, msamd, state_code, county_code, census_tract_number, applicant_ethnicity, co_applicant_ethnicity, applicant_race_1, applicant_race_2, applicant_race_3, applicant_race_4, applicant_race_5, co_applicant_race_1, co_applicant_race_2, co_applicant_race_3, co_applicant_race_4, co_applicant_race_5, applicant_sex, co_applicant_sex, applicant_income_000s, purchaser_type, denial_reason_1, denial_reason_2, denial_reason_3, rate_spread, hoepa_status, lien_status, edit_status, sequence_number, application_date_indicator) **[full table]**