<InputOperation>
id: FINN Code

default

keys<[finn_code]>
FINN Code <type 'dict'>

default

<ValidateFinnCode>
rules: only_numeric_values, starts_with_one, max_len_eight_or_nine
id: Validate Finn Code

default

keys<[finn_code]>
Validated Finn Code <type 'dict'>

thread → thread → thread → thread

<ScrapeFinnStatisticsInfo>
from: 'https://finn.no/pulse/pricepersqm?finnkode=<[finn_code]>'
id: Scrape FINN Statistics Info

<ScrapeFinnCommunityStatistics>
from: 'https://profil.nabolag.no/<[finn_code]>'
id: Scrape FINN Community Statistics

<ScrapeFinnAdvertInfo>
from: 'https://finn.no/realestate/homes/ad.html?finnkode=<[finn_code]>'
id: Scrape FINN Advert Info

<ScrapeFinnOwnershipHistory>
from: 'https://finn.no/realestate/ownershiphistory.html?finnkode=<[finn_code]>'
id: Scrape FINN Ownership History

thread (each)

keys<[sqm_price, totalviews, latestemailcount, currentfavorites, first_published, published,
views_development, normal_traffic, location, price_range, size_range, property_type,
city_area, hist_data_city_area, hist_data_city_area_count, municipality, hist_data_municipality, hist_data_municipality_count,
city_area_sqm_price, municipality_sqm_price]>
FINN Statistics Information <type 'dict'>

keys<[nabolag]>
FINN Community Statistics <type 'dict'>

keys<[finn_adresse, prisantydning, status, fellesgjeld, omkostninger, totalpris, felleskostmnd, boligtype, eieformbolig,
soverom, primrrom, bruksareal, etasje, bygger, energimerking, rom, tomteareal, bruttoareal,
boligselgerforsikring, fellesformue, formuesverdi, telefon, mobil, finnkode, sistendret, referanse]>
FINN Advert Information <type 'dict'>

keys<None>
FINN Ownership History <type 'NoneType'>

default (each)

<Multiplex>
id: Multiplex Scraped Finn Information

default

keys<[finn_adresse, prisantydning, status, fellesgjeld, omkostninger, totalpris, felleskostmnd, boligtype, eieformbolig,
soverom, primrrom, bruksareal, etasje, bygger, energimerking, rom, tomteareal, bruttoareal,
boligselgerforsikring, fellesformue, formuesverdi, telefon, mobil, finnkode, sistendret, referanse, sqm_price,
totalviews, latestemailcount, currentfavorites, first_published, published, views_development, normal_traffic, location, price_range,
size_range, property_type, city_area, hist_data_city_area, hist_data_city_area_count, municipality, hist_data_municipality, hist_data_municipality_count, city_area_sqm_price,
municipality_sqm_price, nabolag]>
Multiplexed Finn Information <type 'dict'>

thread → thread → thread → thread → thread → thread

<Extract>
id: Extract <key 'published'>

<Extract>
id: Extract <key 'historikk'>

<Extract>
id: Extract <key 'prisantydning'>

<Extract>
id: Extract <key 'views_development'>

<Extract>
id: Extract <key 'nabolag'>

thread (each)

keys<None>
Ownership History <type 'NoneType'>

keys<[prisantydning]>
List Price of Real-estate <type 'dict'>

keys<[views_development]>
Development of Advert Views <type 'dict'>

keys<[published]>
Publishing Date of Advertisement <type 'dict'>

keys<[nabolag]>
Finn Community Statistics <type 'dict'>

thread / dataframe / row

<ExtractFirstRow>
id: Extract the Newest Sale with Date

<AddRowToDataFrame>
id: Add List Price to Ownership History

<RateOfChange>
id: Calculate Percentage Change in Advert Views

<FinnCommunitySubModel>
Process: FinnCommunityProcess
id: Processing Finn Community Statistics

thread

keys<None>
Newest Sale with Date <type 'NoneType'>

keys<[views_development]>
Percentage Change in Advert Views <type 'dict'>

keys<[info, age_distribution, civil_status, education, income, higheducation,
higheducation_location, age_distribution_children, schools, schools_location, family_ratings, kindergardens,
kindergardens_location, highschools, highschools_location, family_composition, housing_stock, housing_ownership,
safety_rating, noise_rating, environment_rating, gardens_rating, roads_rating, housing_area,
housing_age, housing_prices, transport, transport_location, transportation_ration, primarytransport,
ladepunkt, rating_parking, rating_traffic, bysykler]>
Processed Finn Community Statistics <type 'dict'>

thread

<CheckNewestDate>
id: Publishing Date of Advertisement Later Than Newest Sale

keys<[Tinglyst, Boligtype, Bolig identifikasjon, Pris]>
Ownership History with List Price <type 'dict'>

<Accumulate>
id: Calculate the Accumulated Sum of Views

true / false

keys<None>
Final Sales Price of Advertised Real-Estate <type 'NoneType'>

keys<None>
Advertised Real-Estate Not Sold / Registered Yet <type 'NoneType'>

keys<[accumulated]>
Accumulated Sum of Views <type 'dict'>

row / dataframe / thread

<AddRowToDataFrame>
id: Add Final Sales Price to Ownership History

<Multiplex>
id: Multiplex Accumulated Sum with Views Development

thread

keys<[Tinglyst, Boligtype, Bolig identifikasjon, Pris]>
Ownership History With List Price and Final Sales Price <type 'dict'>

keys<[views_development]>
Multiplexed Accumulated Sum with Views Development <type 'dict'>

default

<RateOfChange>
id: Calculate Percentage Change in Real-estate Price

default

keys<[historikk]>
Ownership History with Percentage Change in Real-estate Price <type 'dict'>

default / default / default

<Multiplex>
id: Multiplex Scraped Finn Information, Ownership History
with Price Change, View- and Community Statistics

default

keys<[finn_adresse, prisantydning, status, fellesgjeld, omkostninger, totalpris, felleskostmnd, boligtype, eieformbolig, soverom, primrrom, bruksareal,
etasje, bygger, energimerking, rom, tomteareal, bruttoareal, boligselgerforsikring, fellesformue, formuesverdi, telefon, mobil, finnkode,
sistendret, referanse, sqm_price, totalviews, latestemailcount, currentfavorites, first_published, published, views_development, normal_traffic, location, price_range,
size_range, property_type, city_area, hist_data_city_area, hist_data_city_area_count, municipality, hist_data_municipality, hist_data_municipality_count, city_area_sqm_price, municipality_sqm_price, nabolag, historikk,
info, age_distribution, civil_status, education, income, higheducation, higheducation_location, age_distribution_children, schools, schools_location, family_ratings, kindergardens,
kindergardens_location, highschools, highschools_location, family_composition, housing_stock, housing_ownership, safety_rating, noise_rating, environment_rating, gardens_rating, roads_rating, housing_area,
housing_age, housing_prices, transport, transport_location, transportation_ration, primarytransport, ladepunkt, rating_parking, rating_traffic, bysykler]>
Multiplexed Finn Information <type 'dict'>

default

<OutputOperation>
id: Multiplexed Finn Information

default

keys<[finn_adresse, prisantydning, status, fellesgjeld, omkostninger, totalpris, felleskostmnd, boligtype, eieformbolig, soverom, primrrom, bruksareal, etasje, bygger,
energimerking, rom, tomteareal, bruttoareal, boligselgerforsikring, fellesformue, formuesverdi, telefon, mobil, finnkode, sistendret, referanse, sqm_price, totalviews,
latestemailcount, currentfavorites, first_published, published, views_development, normal_traffic, location, price_range, size_range, property_type, city_area, hist_data_city_area, hist_data_city_area_count, municipality,
hist_data_municipality, hist_data_municipality_count, city_area_sqm_price, municipality_sqm_price, nabolag]>
Finn Information <type 'dict'>