schema.org

Home Schemas Documentation

The Type Hierarchy

Here is the entire hierarchy in a single file.

Types that have multiple parents are expanded out only once and have an asterisk

```
DataType

Boolean

Date

DateTime

Number

Float

Integer

Text

URL

Time
```

Thing: additionalType, description, image, name, sameAs, url

Action: agent, endTime, instrument, location, object, participant, result, startTime

```
AchieveAction
      LoseAction: winner
      TieAction
      WinAction: loser
AssessAction
      ChooseAction: option
             VoteAction: candidate
      IgnoreAction
      ReactAction
             AgreeAction
             DisagreeAction
             DislikeAction
             EndorseAction: endorsee
             LikeAction
             WantAction
      ReviewAction: resultReview
```

```
ConsumeAction
       DrinkAction
      EatAction
      InstallAction
      ListenAction
      ReadAction
      UseAction
             WearAction
      ViewAction
      WatchAction
CreateAction
      CookAction: foodEstablishment, foodEvent, recipe
      DrawAction
      FilmAction
      PaintAction
      PhotographAction
      WriteAction: language
FindAction
      CheckAction
      DiscoverAction
      TrackAction: deliveryMethod
InteractAction
       BefriendAction
      CommunicateAction: about, language, recipient
             AskAction: question
             CheckInAction
             CheckOutAction
             CommentAction
             InformAction: event
                    ConfirmAction
                    RsvpAction
             InviteAction: event
             ReplyAction
             ShareAction
      FollowAction: followee
      JoinAction: event
      LeaveAction: event
      MarryAction
      RegisterAction
      SubscribeAction
      UnRegisterAction
MoveAction: fromLocation, toLocation
      ArriveAction
      DepartAction
      TravelAction: distance
OrganizeAction
      AllocateAction: purpose
             AcceptAction
             AssignAction
             AuthorizeAction: recipient
```

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RejectAction

ApplyAction

BookmarkAction

PlanAction: scheduledTime

CancelAction

ReserveAction: scheduledTime

ScheduleAction

PlayAction: audience, event

ExerciseAction: course, diet, distance, exercisePlan, exerciseType, fromLocation,

 $oponent, \, sports Activity Location, \, sports Event, \, sports Team, \, to Location$

PerformAction: entertainmentBusiness

SearchAction: query
TradeAction: price

BuyAction: vendor, warrantyPromise

DonateAction: recipient

OrderAction

PayAction: purpose, recipient

QuoteAction

RentAction: landlord, realEstateAgent SellAction: buyer, warrantyPromise

TipAction: recipient

TransferAction: fromLocation, toLocation

BorrowAction: lender
DownloadAction
GiveAction: recipient
LendAction: borrower

ReceiveAction: deliveryMethod, sender

ReturnAction: recipient

SendAction: deliveryMethod, recipient

TakeAction

UpdateAction: collection

AddAction

AppendAction
PrependAction

DeleteAction

ReplaceAction: replacee, replacer

Class

CreativeWork: about, accountablePerson, aggregateRating, alternativeHeadline, associatedMedia, audience, audio, author, award, awards, citation, comment, contentLocation, contentRating, contributor, copyrightHolder, copyrightYear, creator, dateCreated, dateModified, datePublished, discussionUrl, editor, educationalAlignment, educationalUse, encoding, encodings, genre, headline, inLanguage, interactionCount, interactivityType, isBasedOnUrl, isFamilyFriendly, keywords, learningResourceType, mentions, offers, provider, publisher, publishingPrinciples, review, reviews, sourceOrganization, text, thumbnailUrl, timeRequired, typicalAgeRange, version, video

Article: articleBody, articleSection, wordCount

BlogPosting

NewsArticle: dateline, printColumn, printEdition, printPage, printSection

ScholarlyArticle

MedicalScholarlyArticle: publicationType
TechArticle: dependencies, proficiencyLevel

APIReference: assembly, assembly Version, programming Model, target Platform

Blog: blogPost, blogPosts

Book: bookEdition, bookFormat, illustrator, isbn, numberOfPages

Code: codeRepository, programmingLanguage, runtime, sampleType, targetProduct

Comment

DataCatalog: dataset

Dataset: catalog, distribution, spatial, temporal

<u>Diet</u>: dietFeatures, endorsers, expertConsiderations, overview, physiologicalBenefits, proprietaryName, risks

ExercisePlan: activityDuration, activityFrequency, additionalVariable, exerciseType, intensity,

repetitions, restPeriods, workload ItemList: itemListElement, itemListOrder

Map

MediaObject: associatedArticle, bitrate, contentSize, contentUrl, duration, embedUrl, encodesCreativeWork, encodingFormat, expires, height, interactionCount, offers, playerType, regionsAllowed, requiresSubscription, uploadDate, width

AudioObject: transcript

DataDownload

ImageObject: caption, exifData, representativeOfPage, thumbnail

MusicVideoObject

VideoObject: caption, productionCompany, thumbnail, transcript, videoFrameSize, videoQuality

Movie: actor, actors, director, duration, musicBy, producer, productionCompany, trailer

MusicPlaylist: numTracks, track, tracks

MusicAlbum: byArtist

MusicRecording: byArtist, duration, inAlbum, inPlaylist

Painting

Photograph

Recipe: cookingMethod, cookTime, ingredients, nutrition, prepTime, recipeCategory, recipeCuisine, recipeInstructions, recipeYield, totalTime

Review: itemReviewed, reviewBody, reviewRating

Sculpture

SoftwareApplication: applicationCategory, applicationSubCategory, applicationSuite, countriesNotSupported, countriesSupported, device, downloadUrl, featureList, fileFormat, fileSize, installUrl, memoryRequirements, operatingSystem, permissions, processorRequirements, releaseNotes, requirements, screenshot, softwareVersion, storageRequirements

MobileApplication: carrierRequirements WebApplication: browserRequirements

TVEpisode: actor, actors, director, episodeNumber, musicBy, partOfSeason, partOfTVSeries, producer, productionCompany, trailer

TVSeason: endDate, episode, episodes, numberOfEpisodes, partOfTVSeries, seasonNumber, startDate, trailer

TVSeries: actor, actors, director, endDate, episode, episodes, musicBy, numberOfEpisodes, producer, productionCompany, season, seasons, startDate, trailer

```
WebPage: breadcrumb, isPartOf, lastReviewed, mainContentOfPage, primaryImageOfPage,
          relatedLink, reviewedBy, significantLink, significantLinks, specialty
             AboutPage
             CheckoutPage
             CollectionPage
                    ImageGallery
                    VideoGallery
             ContactPage
             ItemPage
             MedicalWebPage: aspect
             ProfilePage
             SearchResultsPage
      WebPageElement
             \\Site Navigation Element
             Table
             WPAdBlock
             WPFooter
             WPHeader
             WPSideBar
Event: attendee, attendees, duration, endDate, location, offers, performer, performers, startDate,
   subEvent, subEvents, superEvent
      BusinessEvent
      ChildrensEvent
      ComedyEvent
      DanceEvent
      EducationEvent
      Festival
      FoodEvent
      LiteraryEvent
      MusicEvent
      SaleEvent
      SocialEvent
      SportsEvent
      TheaterEvent
      UserInteraction
             UserBlocks
             UserCheckins
             UserComments: commentText, commentTime, creator, discusses, replyToUrl
             UserDownloads
             UserLikes
             UserPageVisits
             UserPlays
             UserPlusOnes
             UserTweets
      VisualArtsEvent
Intangible
      AlignmentObject: alignmentType, educationalFramework, targetDescription, targetName,
          targetUrl
```

Audience

EducationalAudience: educationalRole

MedicalAudience

PeopleAudience: healthCondition, suggestedGender, suggestedMaxAge,

suggested Min Age

MedicalAudience*

ParentAudience: childMaxAge, childMinAge

Brand: logo

Demand: acceptedPaymentMethod, advanceBookingRequirement, availability, availabilityEnds, availabilityStarts, availableAtOrFrom, availableDeliveryMethod, businessFunction, deliveryLeadTime, eligibleCustomerType, eligibleDuration, eligibleQuantity, eligibleRegion, eligibleTransactionVolume, gtin13, gtin14, gtin8, includesObject, inventoryLevel, itemCondition, itemOffered, mpn, priceSpecification, seller, serialNumber, sku, validFrom, validThrough, warranty

Enumeration

BookFormatType

Business Entity Type

BusinessFunction

DayOfWeek

DeliveryMethod

ParcelService

ItemAvailability

OfferItemCondition

PaymentMethod

CreditCard

QualitativeValue: equal, greater, greaterOrEqual, lesser, lesserOrEqual, nonEqual, valueReference

Specialty

MedicalSpecialty

WarrantyScope

JobPosting: baseSalary, benefits, datePosted, educationRequirements, employmentType, experienceRequirements, hiringOrganization, incentives, industry, jobLocation, occupationalCategory, qualifications, responsibilities, salaryCurrency, skills, specialCommitments, title, workHours

Language

Offer: acceptedPaymentMethod, addOn, advanceBookingRequirement, aggregateRating, availability, availabilityEnds, availabilityStarts, availableAtOrFrom, availableDeliveryMethod, businessFunction, category, deliveryLeadTime, eligibleCustomerType, eligibleDuration, eligibleQuantity, eligibleRegion, eligibleTransactionVolume, gtin13, gtin14, gtin8, includesObject, inventoryLevel, itemCondition, itemOffered, mpn, price, priceCurrency, priceSpecification, priceValidUntil, review, reviews, seller, serialNumber, sku, validFrom, validThrough, warranty

AggregateOffer: highPrice, lowPrice, offerCount

Quantity

Distance

Duration

Energy

Mass

Rating: bestRating, ratingValue, worstRating

AggregateRating: itemReviewed, ratingCount, reviewCount

StructuredValue

ContactPoint: contactType, email, faxNumber, telephone

PostalAddress: addressCountry, addressLocality, addressRegion, postalCode,

 $postOffice Box Number, \ street Address$

GeoCoordinates: elevation, latitude, longitude GeoShape: box, circle, elevation, line, polygon

NutritionInformation: calories, carbohydrateContent, cholesterolContent, fatContent, fiberContent, proteinContent, saturatedFatContent, servingSize, sodiumContent, sugarContent, transFatContent, unsaturatedFatContent

OpeningHoursSpecification: closes, dayOfWeek, opens, validFrom, validThrough

OwnershipInfo: acquiredFrom, ownedFrom, ownedThrough, typeOfGood

 ${\color{blue} \textbf{PriceSpecification}: eligible Quantity, eligible Transaction Volume, max Price, min Price,} \\$

 $price,\ price Currency,\ valid From,\ valid Through,\ value Added Tax Included$

 ${\color{blue} \textbf{DeliveryChargeSpecification: appliesToDeliveryMethod, eligible Region}}$

PaymentChargeSpecification: appliesToDeliveryMethod,

appliesToPaymentMethod

UnitPriceSpecification: billingIncrement, priceType, unitCode

QuantitativeValue: maxValue, minValue, unitCode, value, valueReference

TypeAndQuantityNode: amountOfThisGood, businessFunction, typeOfGood, unitCode

WarrantyPromise: durationOfWarranty, warrantyScope

MedicalEntity: alternateName, code, guideline, medicineSystem, recognizingAuthority,

relevantSpecialty, study

AnatomicalStructure: associatedPathophysiology, bodyLocation, connectedTo, diagram,

function, partOfSystem, relatedCondition, relatedTherapy, subStructure

Bone

BrainStructure

Joint: biomechnicalClass, functionalClass, structuralClass

Ligament

Muscle: action, antagonist, bloodSupply, insertion, nerve, origin

Nerve: branch, nerveMotor, sensoryUnit, sourcedFrom

Vessel

Artery: arterialBranch, source, supplyTo

LymphaticVessel: originatesFrom, regionDrained, runsTo

Vein: drainsTo, regionDrained, tributary

AnatomicalSystem: associatedPathophysiology, comprisedOf, relatedCondition,

relatedStructure, relatedTherapy

MedicalCause: causeOf

MedicalCondition: associatedAnatomy, cause, differentialDiagnosis, epidemiology, expectedPrognosis, naturalProgression, pathophysiology, possibleComplication, possibleTreatment, primaryPrevention, riskFactor, secondaryPrevention, signOrSymptom, stage, subtype, typicalTest

InfectiousDisease: infectiousAgent, infectiousAgentClass, transmissionMethod

MedicalContraindication

MedicalDevice: adverseOutcome, contraindication, indication, postOp, preOp, procedure,

purpose, seriousAdverseOutcome

MedicalGuideline: evidenceLevel, evidenceOrigin, guidelineDate, guidelineSubject

MedicalGuidelineContraindication

MedicalGuidelineRecommendation: recommendationStrength

MedicalIndication

ApprovedIndication

PreventionIndication

TreatmentIndication

MedicalIntangible

DDxElement: diagnosis, distinguishingSign

DoseSchedule: doseUnit, doseValue, frequency, targetPopulation

MaximumDoseSchedule RecommendedDoseSchedule ReportedDoseSchedule

DrugCost: applicableLocation, costCategory, costCurrency, costOrigin, costPerUnit,

drugUnit

DrugLegalStatus: applicableLocation

DrugStrength: activeIngredient, availableIn, strengthUnit, strengthValue

MedicalCode: codeValue, codingSystem

MedicalConditionStage: stageAsNumber, subStageSuffix

MedicalEnumeration

DrugCostCategory

DrugPregnancyCategory

Drug Prescription Status

InfectiousAgentClass

MedicalAudience*

MedicalDevicePurpose

MedicalEvidenceLevel

MedicalImagingTechnique

MedicalObservationalStudyDesign

MedicalProcedureType

MedicalSpecialty*

MedicalStudyStatus

MedicalTrialDesign

MedicineSystem

PhysicalActivityCategory

PhysicalExam

MedicalProcedure: followup, howPerformed, preparation, procedureType

DiagnosticProcedure
PalliativeProcedure
TherapeuticProcedure

MedicalRiskEstimator: estimatesRiskOf, includedRiskFactor

MedicalRiskCalculator
MedicalRiskScore: algorithm
MedicalRiskFactor: increasesRiskOf

 ${\color{red}\underline{\textbf{MedicalSignOrSymptom:}}}\ cause,\ possible Treatment$

MedicalSign: identifyingExam, identifyingTest

MedicalSymptom

MedicalStudy: outcome, population, sponsor, status, studyLocation, studySubject

MedicalObservationalStudy: studyDesign

MedicalTrial: phase, trialDesign

```
MedicalTest: affectedBy, normalRange, signDetected, usedToDiagnose, usesDevice
             BloodTest
             DiagnosticProcedure*
             ImagingTest: imagingTechnique
             MedicalTestPanel: subTest
             PathologyTest: tissueSample
      MedicalTherapy: adverseOutcome, contraindication, duplicateTherapy, indication,
          seriousAdverseOutcome
             DietarySupplement: activeIngredient, background, dosageForm, isProprietary,
                 legalStatus, manufacturer, maximumIntake, mechanismOfAction,
                 nonProprietaryName, recommendedIntake, safetyConsideration, targetPopulation
             Drug: activeIngredient, administrationRoute, alcoholWarning, availableStrength,
                 breastfeedingWarning, clincalPharmacology, cost, dosageForm, doseSchedule,
                 drugClass, foodWarning, interactingDrug, isAvailableGenerically, isProprietary,
                 labelDetails, legalStatus, manufacturer, mechanismOfAction, nonProprietaryName,
                 overdosage, pregnancyCategory, pregnancyWarning, prescribingInfo,
                 prescriptionStatus, relatedDrug, warning
             DrugClass: drug
             LifestyleModification
                    Diet*
                    PhysicalActivity: associatedAnatomy, category, epidemiology, pathophysiology
                           ExercisePlan*
             PalliativeProcedure*
             PhysicalTherapy
             PsychologicalTreatment
             RadiationTherapy
             TherapeuticProcedure*
      SuperficialAnatomy: associatedPathophysiology, relatedAnatomy, relatedCondition,
          relatedTherapy, significance
Organization: address, aggregateRating, brand, contactPoint, contactPoints, duns, email, employee,
   employees, event, events, faxNumber, founder, founders, foundingDate, globalLocationNumber,
   hasPOS, interactionCount, isicV4, legalName, location, logo, makesOffer, member, members,
   naics, owns, review, reviews, seeks, taxID, telephone, vatID
      Corporation: tickerSymbol
      EducationalOrganization: alumni
             CollegeOrUniversity
             ElementarySchool
             HighSchool
             MiddleSchool
             Preschool
             School
      GovernmentOrganization
      LocalBusiness: branchOf, currenciesAccepted, openingHours, paymentAccepted, priceRange
             AnimalShelter
             AutomotiveBusiness
                    AutoBodyShop
                    AutoDealer
                    AutoPartsStore
                    AutoRental
```

```
AutoRepair
      AutoWash
      GasStation
      MotorcycleDealer
      MotorcycleRepair
ChildCare
DryCleaningOrLaundry
EmergencyService
      FireStation
      Hospital: availableService, medicalSpecialty
      PoliceStation
EmploymentAgency
EntertainmentBusiness
      AdultEntertainment
      AmusementPark
      ArtGallery
      Casino
      ComedyClub
      MovieTheater
      NightClub
FinancialService
      AccountingService
      AutomatedTeller
      BankOrCreditUnion
      InsuranceAgency
FoodEstablishment: acceptsReservations, menu, servesCuisine
      Bakery
      BarOrPub
      Brewery
      CafeOrCoffeeShop
      FastFoodRestaurant
      IceCreamShop
      Restaurant
      Winery
GovernmentOffice
      PostOffice
HealthAndBeautyBusiness
      BeautySalon
      DaySpa
      HairSalon
      HealthClub
      NailSalon
      TattooParlor
HomeAndConstructionBusiness
      Electrician
      GeneralContractor
      HVACBusiness
      HousePainter
      Locksmith
      MovingCompany
```

```
Plumber
       RoofingContractor
InternetCafe
Library
LodgingBusiness
       BedAndBreakfast
      Hostel
      Hotel
       Motel
MedicalOrganization
       Dentist
       DiagnosticLab: availableTest
      Hospital*
       MedicalClinic: availableService, medicalSpecialty
      Optician
      Pharmacy
      Physician: availableService, hospitalAffiliation, medicalSpecialty
      VeterinaryCare
ProfessionalService
      Accounting Service^*\\
      Attorney
       Dentist*
      Electrician*
       GeneralContractor*
      HousePainter*
      Locksmith*
      Notary
      Plumber*
       RoofingContractor*
RadioStation
RealEstateAgent
RecyclingCenter
SelfStorage
ShoppingCenter
SportsActivityLocation
       BowlingAlley
       ExerciseGym
      GolfCourse
      HealthClub*
      PublicSwimmingPool
      SkiResort
      SportsClub
      StadiumOrArena
      TennisComplex
Store
      AutoPartsStore*
       BikeStore
       BookStore
```

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ClothingStore

ComputerStore

ConvenienceStore

DepartmentStore

 ${\bf Electronics Store}$

Florist

FurnitureStore

GardenStore

GroceryStore

HardwareStore

HobbyShop

Home Goods Store

JewelryStore

LiquorStore

MensClothingStore

MobilePhoneStore

MovieRentalStore

MusicStore

OfficeEquipmentStore

OutletStore

PawnShop

PetStore

ShoeStore

Sporting Goods Store

TireShop

ToyStore

WholesaleStore

TelevisionStation

TouristInformationCenter

TravelAgency

NGO

PerformingGroup

DanceGroup

MusicGroup: album, albums, musicGroupMember, track, tracks

TheaterGroup

SportsTeam

Person: additionalName, address, affiliation, alumniOf, award, awards, birthDate, brand, children, colleague, colleagues, contactPoint, contactPoints, deathDate, duns, email, familyName, faxNumber, follows, gender, givenName, globalLocationNumber, hasPOS, homeLocation, honorificPrefix, honorificSuffix, interactionCount, isicV4, jobTitle, knows, makesOffer, memberOf, naics, nationality, owns, parent, parents, performerIn, relatedTo, seeks, sibling, siblings, spouse, taxID, telephone, vatID, workLocation, worksFor

Place: address, aggregateRating, containedIn, event, events, faxNumber, geo, globalLocationNumber, interactionCount, isicV4, logo, map, maps, openingHoursSpecification, photo, photos, review, reviews, telephone

AdministrativeArea

City

Country

State

```
CivicStructure: openingHours
      Airport
      Aquarium
      Beach
      BusStation
      BusStop
      Campground
      Cemetery
      Crematorium
      EventVenue
      FireStation*
      GovernmentBuilding
             CityHall
             Courthouse
             DefenceEstablishment
             Embassy
             LegislativeBuilding
      Hospital*
      MovieTheater*
      Museum
      MusicVenue
      Park
      ParkingFacility
      Performing Arts Theater \\
      PlaceOfWorship
             Buddhist Temple \\
             CatholicChurch
             Church
             HinduTemple
             Mosque
             Synagogue
      Playground
      PoliceStation*
      RVPark
      StadiumOrArena*
      SubwayStation
      TaxiStand
      TrainStation
      Zoo
Landform
      BodyOfWater
             Canal
             LakeBodyOfWater
             OceanBodyOfWater
             Pond
             Reservoir
             RiverBodyOfWater
             SeaBodyOfWater
             Waterfall
```

Continent

Mountain

Volcano

Land marks Or Historical Buildings

LocalBusiness*

AnimalShelter

AutomotiveBusiness

AutoBodyShop

AutoDealer

AutoPartsStore*

Autorartsstore

AutoRental

AutoRepair

AutoWash

GasStation

MotorcycleDealer

MotorcycleRepair

ChildCare

Dry Cleaning Or Laundry

EmergencyService

FireStation*

Hospital*

PoliceStation*

EmploymentAgency

EntertainmentBusiness

AdultEntertainment

AmusementPark

ArtGallery

Casino

ComedyClub

MovieTheater*

NightClub

FinancialService

AccountingService*

AutomatedTeller

BankOrCreditUnion

InsuranceAgency

FoodEstablishment

Bakery

BarOrPub

Brewery

CafeOrCoffeeShop

FastFoodRestaurant

IceCreamShop

Restaurant

Winery

GovernmentOffice

PostOffice

```
HealthAndBeautyBusiness
       BeautySalon
      DaySpa
      HairSalon
      HealthClub*
      NailSalon
      TattooParlor
Home And Construction Business\\
       Electrician*
      GeneralContractor*
      HVACBusiness
      HousePainter*
      Locksmith*
      MovingCompany
      Plumber*
       Roofing Contractor^{*} \\
InternetCafe
Library
LodgingBusiness
       BedAndBreakfast
      Hostel
      Hotel
      Motel
MedicalOrganization
       Dentist*
      DiagnosticLab
      Hospital*
      MedicalClinic
       Optician
      Pharmacy
      Physician
      VeterinaryCare
ProfessionalService
      AccountingService*
      Attorney
      Dentist*
      Electrician*
      GeneralContractor*
      HousePainter*
      Locksmith*
      Notary
      Plumber*
      RoofingContractor*
RadioStation
RealEstateAgent
RecyclingCenter
SelfStorage
```

ShoppingCenter

Sports Activity Location

BowlingAlley

ExerciseGym

GolfCourse

HealthClub*

PublicSwimmingPool

SkiResort

SportsClub

StadiumOrArena*

TennisComplex

Store

AutoPartsStore*

BikeStore

BookStore

ClothingStore

ComputerStore

ConvenienceStore

DepartmentStore

ElectronicsStore

Florist

FurnitureStore

GardenStore

GroceryStore

HardwareStore

HobbyShop

HomeGoodsStore

JewelryStore

LiquorStore

MensClothingStore

MobilePhoneStore

Movie Rental Store

MusicStore

Office Equipment Store

OutletStore

PawnShop

PetStore

ShoeStore

Sporting Goods Store

TireShop

ToyStore

WholesaleStore

TelevisionStation

Tour ist Information Center

TravelAgency

Residence

Apartment Complex

 ${\sf GatedResidenceCommunity}$

SingleFamilyResidence

TouristAttraction

Product: aggregateRating, audience, brand, color, depth, gtin13, gtin14, gtin8, height,

isAccessoryOrSparePartFor, isConsumableFor, isRelatedTo, isSimilarTo, itemCondition, logo, manufacturer, model, mpn, offers, productID, releaseDate, review, reviews, sku, weight, width

IndividualProduct: serialNumber

ProductModel: isVariantOf, predecessorOf, successorOf

SomeProducts: inventoryLevel Property: domainIncludes, rangeIncludes

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