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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

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, assemblyVersion, programmingModel, targetPlatform

Blog: blogPost, blogPosts

Book: bookEdition, bookFormat, illustrator, isbn, numberOfPages

Code: codeRepository, programmingLanguage, runtime, sampleType, targetProduct

Comment

DataCatalog: dataset

Dataset: catalog, distribution, spatial, temporal

Diet: 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
SiteNavigationElement
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, suggestedMinAge
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](#)

[BusinessEntityType](#)

[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](#), [postOfficeBoxNumber](#), [streetAddress](#)

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
PriceSpecification: eligibleQuantity, eligibleTransactionVolume, maxPrice, minPrice, price, priceCurrency, validFrom, validThrough, valueAddedTaxIncluded
DeliveryChargeSpecification: appliesToDeliveryMethod, eligibleRegion
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: biomechanicalClass, 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](#)
 [DrugPrescriptionStatus](#)
 [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](#)
[MedicalSignOrSymptom](#): [cause](#), [possibleTreatment](#)
 [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, clinicalPharmacology, cost, dosageForm, doseSchedule, drugClass, foodWarning, interactingDrug, isAvailableGenerically, isProprietary, labelDetails, legalStatus, manufacturer, mechanismOfAction, nonProprietaryName, overdose, 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

AccountingService*

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

ClothingStore

ComputerStore

ConvenienceStore

DepartmentStore

	ElectronicsStore
	Florist
	FurnitureStore
	GardenStore
	GroceryStore
	HardwareStore
	HobbyShop
	HomeGoodsStore
	JewelryStore
	LiquorStore
	MensClothingStore
	MobilePhoneStore
	MovieRentalStore
	MusicStore
	OfficeEquipmentStore
	OutletStore
	PawnShop
	PetStore
	ShoeStore
	SportingGoodsStore
	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

LandmarksOrHistoricalBuildings

LocalBusiness*

AnimalShelter

AutomotiveBusiness

AutoBodyShop

AutoDealer

AutoPartsStore*

AutoRental

AutoRepair

AutoWash

GasStation

MotorcycleDealer

MotorcycleRepair

ChildCare

DryCleaningOrLaundry

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
HomeAndConstructionBusiness
Electrician*
GeneralContractor*
HVACBusiness
HousePainter*
Locksmith*
MovingCompany
Plumber*
RoofingContractor*
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
SportsActivityLocation
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
	MovieRentalStore
	MusicStore
	OfficeEquipmentStore
	OutletStore
	PawnShop
	PetStore
	ShoeStore
	SportingGoodsStore
	TireShop
	ToyStore
	WholesaleStore
	TelevisionStation
	TouristInformationCenter
	TravelAgency
Residence	
	ApartmentComplex
	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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