YourSports Type Hierarchy

The YourSports Type Hierarchy is used to define entity descriptions for the various entity types represented by YourSports. Types are largely based on the schema.org heirarchy, which are used explicitly where appropriate, as are the properties defined within schema.org. In some cases, information may be represented using both schema.org and YourSports type heirarchy, particularly where there is a particular desire for information to be easily navigable by search engines.

This hierarchy can be seen as a more generic alternative to the Sports Vocabulary Proposal (v2) based on BBC, SportsML and ESPN for inclusion in schema.org. Whereas their proposal makes concrete use of subclasses and class-specific properties to describe the attributes of particular sports, this proposal uses a more generic enumeration mechanism, where organizations such as Sports Teams adhere to disciplines, which can be described using common identifiers from WikiPedia and team members can be described using a Contribution, including the individual (agent) and a role.

Although defined in a separate YourSports namespace (abbreviated `ys` in this proposal), the mechanisms here could also be considered as an extension to schema.org, or as a modification to the Sports Vocabulary Proposal cited above.

Nomenclature

Even though the YourSports API typically uses JSON-LD for entity descriptions, or RDFa where specific page markup is needed, it is useful to use a more human readable format for talking about entities. Turtle is the most widely used humanly readable form of RDF, and can express most anything that can be expressed using JSON-LD or RDFa.

Although JSON-LD often requires that each term be independently defined, most RDF serialization formats support prefixes which associate a short token with a URI associated with a specific vocabulary. For example, the prefix `schema` is typically associated with the vocabulary `http://schema.org/`. In Turtle, these are declared using the `@prefix` keyword. While we use the Turtle notation for descriptions, rather than declaring prefixes for each use, we'll assume the following:

foaf	`http://xmlns.com/foaf/0.1/`
hydra	`http://www.w3.org/ns/hydra/core#`
rdf	`http://www.w3.org/1999/02/22-rdf-syntax-ns#`
rdfs	`http://www.w3.org/2000/01/rdf-schema#`
schema	`http://schema.org/`
xhv	`http://www.w3.org/1999/xhtml/vocab#`

xsd	`http://www.w3.org/2001/XMLSchema`
ys	`http://yoursports.com/ns#`

Vocabularies

Vocabularies are meta-descriptions used for defining the meaning of classes and properties. Typically, types classes defined as being of type `rdfs:Class` with properties defining the *range* and *domain* of the property in terms of the classes for which it is appropriate. As schema.org defines their own *annotation properties* for describing domain and range, we will use `schema:rangeIncludes` and `schema:domainIncludes` instead of the related `rdfs:range` and `rdfs:domain`. Additionally, the type hierarchy is formed using `rdfs:subClassOf`, with typically just a single class as parent. The following are example class and property definitions:

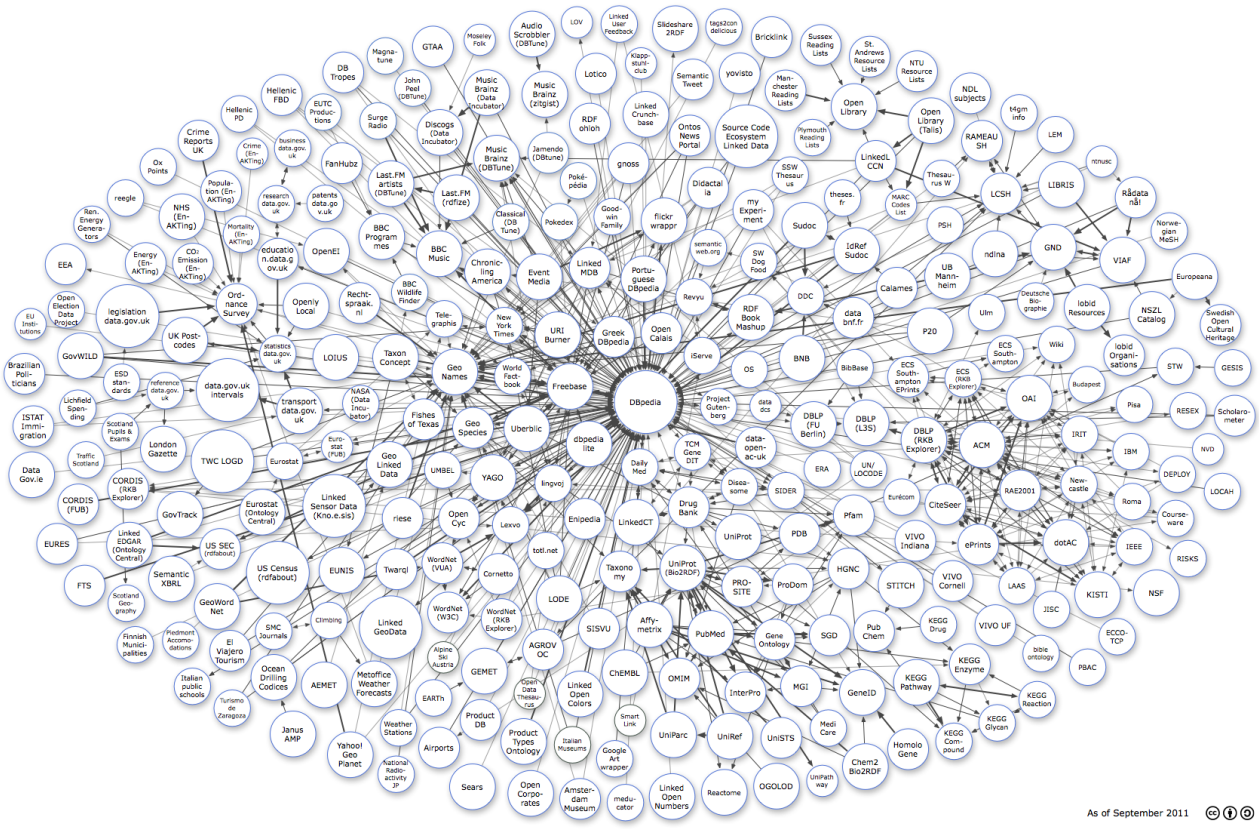
```
ys:Discipline a rdfs:Class;
  rdfs:label "Discipline";
  rdfs:comment "The type of discipline a sporting event or organization
involves."@en;
  rdfs:subClassOf schema:Specialty .
```

Note that `Discipline` is an enumeration class, with instances being particular sports. The following is an example of the particular sport “American Football” which is defined as being a kind of `Discipline`..

```
</American_football> a schema:Specialty, ys:Discipline;
  schema:name "American Football"@en;
  schema:description
    """American football is a sport played by two teams of eleven
       players on a rectangular field 120 yards long by
       53.33 yards wide ...."""@en
  schema:sameAs <http://rdf.freebase.com/m/0jm_>,
                <http://dbpedia.org/wiki/American_football>.
```

SameAs

An important Linked Data tool is to note when two resource identifiers represent the same thing. Schema.org supports this using the schema:sameAs predicate, which can be used to indicate, for example, that a YourSports team entity is intended to represent the same thing when the team is used on other contexts. In the Semantic Web, the core of this data universe is DBpedia.



DBPedia resources are based on WikiPedia pages, and they assert their own equivalences both to the original WikiPedia pages, and other providers such as Freebase. For example, the WikiPedia page for the Seattle Seahawks is http://en.wikipedia.org/wiki/Seattle_seahawks. This can be turned into a DBpedia identifier by replacing the host and “wiki” path with http://dbpedia.org/resource/, creating http://dbpedia.org/resource/Seattle_seahawks. You’ll note that if you dereference this URL, you’ll actually go to http://dbpedia.org/page/Seattle_seahawks, where you’ll see several assertions about the team, in many different languages. You’ll also find the associated Freebase identifier at http://rdf.freebase.com/ns/m.070xg. Note that this is not the same as the humanly readable version at http://www.freebase.com/m/070xg, but they’re obviously closely related.

In the YourSports vocabulary, specific instances can be associated with enumerations, as they are defined on WikiPedia, but use (at least) the primary DBpedia URI to identify these. This includes the following:

Concept	Description	Examples
Sports Teams	Specific sports teams are associated with their WikiPedia identity. Note that these are used	• http://dbpedia.org/resource/Seattle_seahawks.

	for specific entity identity, rather than for type extension.	• http://dbpedia.org/resource/San_Francisco_Giants • http://dbpedia.org/resource/UCLA_bruins_basketball
`ys:Role`	Used to identify a player role	• http://dbpedia.org/resource/Center_fielder • http://dbpedia.org/resourcei/Point_guard • http://dbpedia.org/resource/Wide_receiver
`ys:Discipline`	Identifiers for different types of sports activities	• http://dbpedia.org/resource/Baseball • http://dbpedia.org/resource/American_football • http://dbpedia.org/resource/Basketball
Location	Identifiers for cities, stadiums and other physical locations.	• http://dbpedia.org/resource/Seaattle • http://dbpedia.org/resource/Northern_California • http://dbpedia.org/resource/Great_Britain

Type Hierarchy

The purpose of the type hierarchy is to be able to describe an entity space which is consistent with the business needs of YourSports. Entity types broadly are composed of the following areas:

- Location – using schema:Place and sub-types. This is used to describe a hierarchy of locations: World > Country > State > Region > City > Neighborhood.
- Person – using schema:Person. This is used for individuals such as athletes, coaches, executives and owners, along with individual user accounts. Subtypes include `RegisteredUser`, and `SportsPerson`.
- Organization – using schema:Organization and sub-types. This is for teams and encompassing organizations which can form a hierarchy Sport > League > Division > Team. It is also used for publishers, networks and affiliates.
- Discipline – using subclasses of `schema:Specialty`. Used to define the type of SportsTeam. This saves creating a subclass for each distinct sport, and allows sports to have a relationship with each other (e.g. Rugby and American Football, Baseball and Cricket). See also the BBC Sports Ontology definition.
- Actions – Used to describe social relationships such to express *interest*, *social*, and *attendance* graphs. Also used as the basis of a `Contribution`.
- Role – using schema:Specialty. Used to define roles played by individuals as part of a

`Contribution`.

- Events – Used to model team seasons, games, and periods.
- Contributions – used to describe the roles used by an individual (agent) within a Organization or Event.

A `Season` is a kind of `schema:SportsEvent` used as an indirection to describe the relationships with some entity with other entities which are in effect for the timespan of the event. For example, a team has several seasons, typically one per year. That season relates the team with players, coaches, managers and owners of the team, and may also relate the team with it's organizational structure within the associated league and it's farm teams (or parent teams). Note that there may be a certain overlay effect on the related team; for example, The Baltimore Ravens were previously known as the the Cleveland Browns (moved in 1996), although they could also be viewed as a new expansion team; the Browns were then re-invented. The Houston Oilers became the Tennessee Titans in 2002.

Location

Locations are based on `schema:Place` subtypes and refer to the location in which they are contained. Best practice would also relate the item to an equivalent (`sameAs`) in DBpedia.

YS Class	subClassOf	Properties
ys:World	schema:Landform	
schema:Country		containedIn World; geo; image
schema:State		containedIn Country; geo; image; logo; map
ys:Region	schema:Landform	containedIn State; geo; image; map
schema:City		containedIn Region; geo; image; logo; map
ys:Neighborhood	schema:AdministrativeArea	containedIn City; geo; image; map
schema:SportsActivityLocation		containedIn; geo; image
schema:Park		containedIn; geo; image
schema:StadiumOrArena		containedIn; geo; image

```
</FenwayPark> a schema:StadiumOrArena;
  schema:name "Fenway Park"@en;
```

```
  schema:description
    "Fenway Park is a baseball park near Kenmore Square in Boston, ..."@en;
  schema:sameAs <http://dbpedia.org/resource/Fenway_park>,
    <http://rdf.freebase.com/ns/m.02_pj> .
```

Person

A Person is subtyped for the different types of individuals described in YourSports.

A `RegisteredUser` may have one or more Online Accounts, for which we use the Friend of a Friend (FOAF) vocabulary, which allows the type of account to be named, the user ID or handle of that account. This is typically identified by the URI of the account, if known, otherwise it has a blank node subject.

A `SportsPerson` contributes to an event through a `ys:Contribution` using `ys:contributor`.

YS Class	subClassOf	Properties
ys:RegisteredUser	schema:Person	birthDate; photo; homeLocation; email; gender; follows; foaf:account
ys:SportsPerson	schema:Person	birthDate; photo; homeLocation; gender; affiliation; alumniOf; award; memberOf; parent; sibling; spouse; children; performerIn

Note that athletes may play multiple roles, and are associated with events and organizations using an intermediate `Contribution` class, which is an anonymous entity relating an individual with a role.

```
</Willie_Mays> a schema:Person, ys:SportsPerson;
  schema:givenName "Willie";
  schema:familyName "Mays";
  schema:name "Willie Mays"@en;
  schema:birthDate "1931-05-06"^^xsd:date;
  schema:description """
    Willie Howard Mays, Jr. (born May 6, 1931) is a retired American
    professional baseball player who spent the majority of his major league
    career with the New York and San Francisco Giants before finishing with the
    New York Mets. He was elected to the Baseball Hall of Fame in 1979 in his
    first year of eligibility. Mays was nicknamed The Say Hey Kid. Mays won two
    MVP awards and tied Stan Musial's record with 24 appearances in the
    All-Star Game.
  """;
```

```
schema:sameAs <http://dbpedia.org/resource/Willie_Mays> .
```

Organization

Organizations are used for sports teams, media outlets, associations, conferences, leagues, subsidiaries and so-forth. Note that the `schema:event` property is typically used to relate a team with a season, which has it's own events, relating a season with individual seriese or games forming an event hierarchy.

For a `SportsTeam`, a `ys:discipline` relates the team with the specific `Discipline`. YourSports extends `Organization` with a `ys:contributor` property associating one or more `ys:Contribution` entities as an intermediate to associate one or more roles with an individual.

YS Class	subClassOf	Properties
ys:Network	schema:Organization	event; owns
schema:Corporation		owns; tickerSymbol
schema:CollegeOrUniversity		
schema:HighSchool		
schema:School		
ys:Affiliate	schema:Organization	
ys:RegionalNetwork	schema:Organization	
schema:SportsTeam		-- may also mixin schema:Corporation discipline; founder; foundingDate; location; logo; member; subOrganization; ys:contributor
ys:Publisher	schema:Organization	
ys:League	schema:Organization	discipline; foundingDate; location; logo; subOrganization Division
ys:Division	schema:Organization	discipline; foundingDate; location; logo; subOrganization SportsTeam
ys:Association	schema:Organization	discipline; foundingDate; location; logo; subOrganization League

Events

Events are used to describe large-timespan events such as seasons, as well as shorter timespan events such as series, games, and periods.

(Note, the Sports Vocabulary Proposal (v2) introduces an `OrderedEvent` class, which may be appropriate, although events are nominally ordered by their relative `startDate` and `endDate` properties.)

YS Class	subClassOf	Properties
ys:Season	schema:SportsEvent	startDate; endDate; subEvent Series/Game; ys:team; performer; ys:contributor
ys:Series	schema:SportsEvent	startDate; endDate; subEvent Game; superEvent Season; performer; contributor
ys:Game	schema:SportsEvent	subEvent Period; superEvent Season/Series; performer; contributor
ys:Period	schema:SportsEvent	subEvent Play; superEvent Game; performer; contributor

Activities and Interactions

As YourSports is fundamentally a social site, user interactions is a core use case. These interactions include

- describing a contribution to an Organization or Event, which relates an individual (agent) and a role or roles played by the individual.
- liking and disliking players, teams, and perhaps other entities (fan/like/neutral/foe) (interest),
- following players and teams (social),
- checking in with teams, locations or other entities (attendance),
- posting stories,
- sharing links,
- commenting, replying to comments and re-posting/sharing

Broadly speaking, these types of interactions relate to schema.org Actions, in some cases YourSports-specific actions are required.

Generically, a Contribution is a kind of `Action`, which associates an agent with a `Role` describing the type of contribution made to the `Organization` or `Event`.

Actions are performed by an agent (typically, a user) on some other object; they can have a location, start and end times and can result in some new or related entity.

When describing an API method, an entity can describe actions to be taken on it, or on any of it's properties, using the `schema:operation` property (not presently part of the schema.org vocabulary definition). However, for the purpose of using sub-classes of action to describe to result of such actions, `schema:operation` is not appropriate. As no other such properties have been defined, we define `ys:interest(s)`, `ys:follow(s)`, and `ys:checkin(s)` to identify the specific relationships between a `Thing` and the related interactions for interest, social and attendance graphs.

Actions are largely similar to Activity Streams, and are also the basis of describing team rosters and game play.

YS Class	**subClassOf**
schema:AchieveAction	
schema:TieAction	
schema:WinAction	
schema:AgreeAction	
schema:DisagreeAction	
schema:DislikeAction	
schema:EndorceAction	
schema:LikeAction	
schema:WantAction	
ys:FanAction	schema:LikeAction
ys:NeutralAction	schema:ReactAction
schema:BefriendAction	
schema:AskAction	
schema:CheckInAction	
schema:CheckOutAction	
schema:CommentAction	

schema:InviteAction	
schema:ReplyAction	
schema:ShareAction	
schema:FollowAction	
schema:JoinAction	
schema:LeaveAction	
schema:RegisterAction	
schema:SubscribeAction	
schema:UnRegisterAction	
ys:Contribution	

Statistics

TBD. Generally follow the Sports Vocabulary Proposal with statistics described using enumeration types rather than sport-specific properties.

Other

A `ys:Discipline` is a single class, with multiple instances defining the specific sports disciplines. This class could potentially be expanded to help define a sports taxonomy.

A `ys:Role` is a single class, with multiple instances defining the specific sports roles. This class could potentially be expanded to help define a sports taxonomy.

YS Class	**subClassOf**	**Properties**
ys:Discipline	schema:Specialty	
ys:Role	schema:Specialty	

Other classes not easily categorized. .

API

The “LD” in JSON-LD stands for Linked Data. Linked Data is important, as it allows new information to be discovered from links in existing data. For example, a League links to divisional sub-organizations using the `schema:subOrganization` property. A JSON-LD representation of a League would then contain within it links to the Divisions with which are affiliated with it. Similarly,

a Division may contain a (reverse) link to the League with which it is a member. This form of linking works well when there are a relatively stable and small number of such associations.

The YourSports API takes advantage of the Linked Data nature of the data model at the heart of YourSports by using the Hydra vocabulary to describe supported classes, the expected or required properties of instances of those classes, and operations that may be performed. This also allows the API documentation to be discovered and automatically generated. In conjunction with user authentication/authorization, different capabilities of the API can be exposed to different users.

(Note, the schema.org Action hierarchy is closely related, and while both are evolving, YourSports will closely track developments and evolve).

Paged Collections

In many cases, the number of items related to a referencing item can be quite large, and there is a need to express more operations than simple iteration on these items. For example, the number of fans of a team can be quite large. From an SEO perspective, being able to itemize these fans using paged collections is important, but from a navigation perspective, not all fans are the same. For instance, it may be more useful to return the subset of fans which are in the current user's social graph in some prioritized order.

The schema.org *Action* class hierarchy allows operations to be defined on resources, this can include enumeration (simple HTTP GET) and search, where parameters are specified to qualify the search. Ultimately, being able to construct HTTP operations for a number of defined interactions with specified parameters is important in creating an API which can be automatically provisioned.

As an example, the contributors to a Sports Team are typically indicated using the `ys:contributor` property; but rather than doing this directly on the team, we use the plural `ys:contributors` property defining an `ItemList` with operations useful in retrieving those contributors. The plural version of a property is used for the list form, and the singular to represent the actual entity relationship.

```
</Seattle_seahawks> a schema:SportsTeam;
  schema:name "Seattle Seahawks";
  schema:sameAs "http://dbpedia.org/resource/Seattle_seahawks";
  schema:contributors </Seattle_seahawks/contributors> .

</Seattle_seahawks/contributors?page=0> a schema:ItemList;
  schema:operation [
    a schema:SeachAction;
    schema:name "Search team contributors";
    schema:expects [
      a schema:SupportedClass;
      schema:supportedProperty [
        a schema:SupportedProperty;
```

```
        schema:name "text query against team contributors"
        schema:property schema:query
      ];
      schema:actionHandler [
        a schema:HttpHandler;
        schema:httpMethod
      ]
    ]
  ]
```

The above example relates the contributors of the Seattle Seahawks to a relative URL. This URL is defined as an `ItemList`, and also defines an operation on that list (`schema:SearchAction`). This allows the relative URL to be used in two ways: if the URL is retrieved (HTTP GET), it returns an `ItemList` containing a set of items having a `schema:member` relationship with the team. This can be made a paged list by adding `xhv:previous` and `xhv:next` relationships to the list, as appropriate.

Secondly, the operations defined on the relative URL can be used to invoke API calls to do more operations on the collection, in this case a textual search. (Note, this is fairly speculative right now, as the Action proposal is not completely deployed. This also overlaps the Hydra spec, and we can expect this to evolve. In particular, it would be useful to define operations on a class, and not need to spell them out for every instance.)

Performing a GET on the contributors path can then return a paginated list of contributors:

```
</Seattle_seahawks/contributors?page=0> a schema:ItemList;
  schema:itemListOrder "Ascending";
  xhv:start </Seattle_seahawks/contributors?page=0>;
  xhv:next </Seattle_seahawks/contributors?page=1>;
  xhv:last </Seattle_seahawks/contributors?page=2>;
  schema:itemListElement _:c_pete, _:c_russell .

_:c_pete a ys:Contribution;
  schema:agent </Pete_Carroll>;
  ys:role [
    a ys:RoleType;
    ys:name "Coach";
    schema:sameAs <http://dbpedia.org/resource/Coach_(sport)>
  ] .

_:c_russell a ys:Contribution;
  schema:agent </Russell_Wilson>;
  ys:role [
    a ys:RoleType;
    ys:name "Quarterback";
```

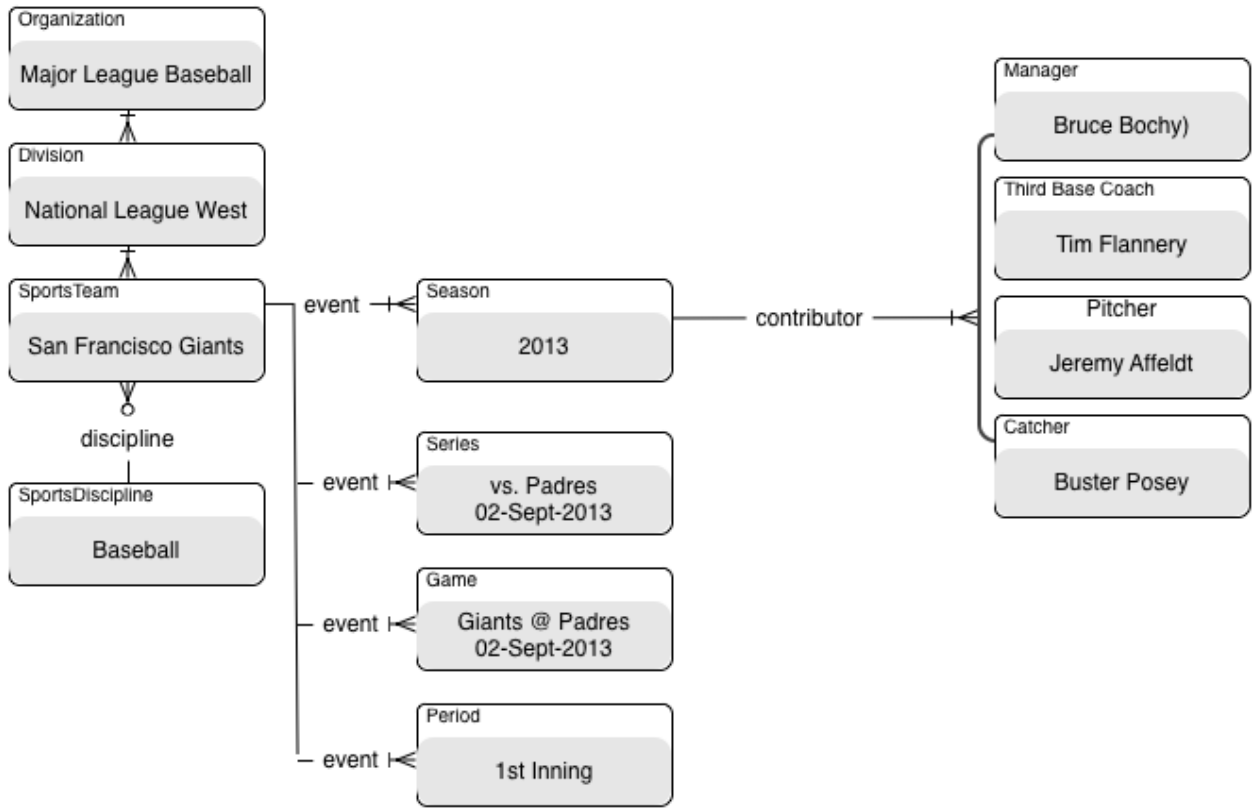
```
    schema:sameAs <http://dbpedia.org/resource/Quarterback>
  ]
]

</Seattle_seahawks> schema:contributor _:c_pete, _:c_russell .
```

This lists two anonymous contributors assigning them their respective roles, and associates them with the people (agent) performing that role. Note that the `ItemList` resource also describes each Contribution directly against the team using the `schema:contributor` property.

Examples

The following diagram shows at a high level how teams are contained within an organizational hierarchy, have multiple events, and contributors.




```
</Major_League_Baseball> a ys:League, schema:Organization;
  ys:discipline </American_Baseball>;
  schema:name "Major League Baseball"@en;
  schema:url <http://mlb.com>;
  schema:foundingDate "1869"^^xsd:gYear;
  schema:sameAs http://dbpedia.org/resource/Major_League_Baseball>;
  schema:members </Major_League_Baseball/members> .
```

```
</American_Baseball> a ys:Discipline;
  schema:name "Baseball"@en;
  schema:sameAs <http://dbpedia.org/resource/American_baseball> .

# Members not paginated
</Major_League_Baseball/members> a schema:ItemList;
  schema:name "Divisions within Major League Baseball";
  schema:itemListElement
    </American_League_East>,
    </American_League_Central>,
    </American_League_West>,
    </National_League_East>,
    </National_League_Central>,
    </National_League_West> .

  # ItemList also relates each member to the referencing organization
  </Major_League_Baseball>
    schema:member
      </American_League_East>,
      </American_League_Central>,
      </American_League_West>,
      </National_League_East>,
      </National_League_Central>,
      </National_League_West> .

</National_League_West> a ys:Division, schema:Organization;
  schema:name "National League West"@en;
  ys:discipline </American_Baseball>;
  schema:foundingDate "1969"^^xsd:gYear;
  schema:sameAs <http://dbpedia.org/resource/National_League_West>;
  schema:members </National_League_West/members> .

# Members not paginated
</National_League_West/members> a schema:ItemList;
  schema:name "Teams within the National League West";
  schema:itemListElement
    </Arizona_Diamondbacks>,
    </Colorado_Rockies>,
    </Los_Angeles_Dodgers>,
    </San_Diego_Padres>,
    </San_Francisco_Giants> .

  # ItemList also relates each member to the referencing organization
  </National_League_West>
    schema:member
      </Arizona_Diamondbacks>,
      </Colorado_Rockies>,
```

```
      </Los_Angeles_Dodgers>,
      </San_Diego_Padres>,
      </San_Francisco_Giants> .

</San_Francisco_Giants> a schema:SportsTeam;
  schema:name "San Francisco Giants"@en;
  ys:discipline </American_Baseball>;
  ys:foundingDate "1883"^^xsd:gYear;
  schema:sameAs <http://dbpedia.org/resource/San_Francisco_Giants>;
  schema:events </San_Francisco_Giants/events?page=0>;
  schema:contributors </San_Francico_Giants/contributors?page=0> .

# Members  paginated
</San_Francisco_Giants/events?page=14> a schema:ItemList;
  xhv:start </San_Francisco_Giants/events?page=0>;
  xhv:last </San_Francisco_Giants/events?page=14>;
  schema:name "San Francisco Giants Seasons";
  schema:logo
"http://upload.wikimedia.org/wikipedia/en/thumb/5/58/San_Francisco_Giants_Logo.svg/190px-San_Francisco_
Giants_Logo.svg.png";
  schema:itemListElement
    </2010_San_Francisco_Giants>,
    </2011_San_Francisco_Giants>,
    </2012_San_Francisco_Giants>,
    </2013_San_Francisco_Giants> .

  # ItemList also relates each member to the referencing organization
  </San_Francisco_Giants>
    schema:event
      </2010_San_Francisco_Giants>,
      </2011_San_Francisco_Giants>,
      </2012_San_Francisco_Giants>,
      </2013_San_Francisco_Giants> .

</2013_San_Francisco_Giants> a ys:Season, schema:SportsEvent
  schema:name "2013 San Francisco Giants";
  schema:startDate "2013-01-01"^^xsd:date;
  schema:endDate "2013-12-31"^^xsd:date;
  schema:contributors </2013_San_Francisco_Giants/contributors>;
  schema:events </2013_San_Francisco_Giants/events> .

# Contributors not paginated
</2013_San_Francisco_Giants/contributors> a schema:ItemList;
  schema:name "2013 San Francisco Team Roster";
  schema:itemListElement
    [ schema:role </General_Manager>; schema:agent </Bruce_Bochy>],
    [ schema:role </Pitcher>; schema:agent </Jeremy_Affeldt>],
    [ schema:role </Pitcher>; schema:agent </Madison_Bumgarner>],
```

```
  [ schema:role </Catcher>; schema:agent </Buster_Posey>] .
```

Appendix A: YourSports Vocabulary Definition

```
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix schema: <http://schema.org/> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix ys: <http://yoursports.com/vocab/> .

ys: a owl:Ontology;
  rdfs:label "YourSports";
  rdfs:comment "The YourSports ontology extends schema.org to describe sports teams, players, activities
and interactions.";
  owl:imports schema: .

ys:Affiliate a rdfs:Class;
  rdfs:label "Affiliate";
  rdfs:comment "An affiliate of a Network.";
  rdfs:subClassOf schema:Organization .

ys:Association a rdfs:Class;
  rdfs:label "Association";
  rdfs:comment "An association having Leagues as members.";
  rdfs:subClassOf schema:Organization .

ys:Contribution a rdfs:Class;
  rdfs:label "Contribution";
  rdfs:comment "A Contribution is an anonymous object which relates an Organization or Event with a player
or other Person or Organization havin";
  rdfs:subClassOf schema:Action .

ys:Discipline a rdfs:Class;
  rdfs:label "Discipline";
  rdfs:comment "The type of discipline a sporting event involves.";
  rdfs:subClassOf schema:Specialty .

ys:Division a rdfs:Class;
  rdfs:label "Division";
  rdfs:comment "An intermediate organization within a League.";
  rdfs:subClassOf schema:Organization .

ys:FanAction a rdfs:Class;
  rdfs:label "Fan";
  rdfs:comment "The action of becoming a fan of some thing, based on a \"Like\"\" action.\"";
  rdfs:subClassOf schema:LikeAction .
```

```
ys:Game a rdfs:Class;
  rdfs:label "Game";
  rdfs:comment "An individual sports competition.";
  rdfs:subClassOf schema:SportsEvent .

ys:League a rdfs:Class;
  rdfs:label "League";
  rdfs:comment "A top-level organization of affiliated Sports Teams, organized through zero or more layers of Division.";
  rdfs:subClassOf schema:Organization .

ys:Neighborhood a rdfs:Class;
  rdfs:label "Neighborhood";
  rdfs:comment "A portion of a City, such as Brookline. Instances of Neighborhood have a schema:containedIn relationship with a City.";
  rdfs:subClassOf schema:Landform .

ys:Network a rdfs:Class;
  rdfs:label "Network";
  rdfs:comment "A media network, possibly owning Affiliates or Regional Networks and employing a Media Person. A network broadcasts or otherwise makes available reportage on sporting events.";
  rdfs:subClassOf schema:Organization .

ys:NeutralAction a rdfs:Class;
  rdfs:label "Neutral";
  rdfs:comment "A statement of neutral affliliation with some thing, between like and dislike.";
  rdfs:subClassOf schema:ReactAction .

ys:Period a rdfs:Class;
  rdfs:label "Period";
  rdfs:comment "A portion of a Game.";
  rdfs:subClassOf schema:SportsEvent .

ys:Play a rdfs:Class;
  rdfs:label "Play";
  rdfs:comment "An individual play within a game or period.";
  rdfs:subClassOf schema:SportsEvent .

ys:Publisher a rdfs:Class;
  rdfs:label "Publisher";
  rdfs:comment "A publisher of written reportage or comentary on a sports event.";
  rdfs:subClassOf schema:Organization .

ys:Region a rdfs:Class;
  rdfs:label "Region";
  rdfs:comment "A portion of a state, such as Southern California. Instances of Reagon have a schema:containedIn relationship with a State.";
```

```
  rdfs:subClassOf schema:Landform .

ys:RegionalNetwork a rdfs:Class;
  rdfs:label "Regional Network";
  rdfs:comment "A sub-network of a network, similar to an Affiliate.";
  rdfs:subClassOf schema:Organization .

ys:RegisteredUser a rdfs:Class;
  rdfs:label "Registered User";
  rdfs:comment "A Registered User on YourSports. May have linked OnlineAccounts, which could be used for third-party login or other account interaction.";
  rdfs:subClassOf schema:Person .

ys:Role a rdfs:Class;
  rdfs:label "Role";
  rdfs:comment "The type of role played by an individual as part of a Contribution.";
  rdfs:subClassOf schema:Specialty .

ys:Season a rdfs:Class;
  rdfs:label "Season";
  rdfs:comment "A Season is a kind of schema:SportsEvent used as an indirection to describe the relationships with some entity with other entities which are in effect for the timespan of the event. For example, a team has several seasons, typically one per year. That season relates the team with players, coaches, managers and owners of the team, and may also relate the team with itâ€™s organizational structure within the associated league and itâ€™s farm teams (or parent teams).";
  rdfs:subClassOf schema:SportsEvent .

ys:Series a rdfs:Class;
  rdfs:label "Series";
  rdfs:comment "A collection of games typically between the same set of opponents.";
  rdfs:subClassOf schema:SportsEvent .

ys:SportsPerson a rdfs:Class;
  rdfs:label "Sports Person";
  rdfs:comment "A person who is a topic of YourSports; A Sports Person may also be a Registered User.";
  rdfs:subClassOf schema:Person .

ys:TeamExecutive a rdfs:Class;
  rdfs:label "Team Executive";
  rdfs:comment "A person in a management or ownership capacity to a team in YourSports.";
  rdfs:subClassOf ys:SportsPerson .

ys:World a rdfs:Class;
  rdfs:label "World";
  rdfs:comment "The Earth, and everything in it. This is a singleton, at least until the Lunar golf club reopens.";
  rdfs:subClassOf schema:Landform .

ys:checkin a rdf:Property;
```

```
  rdfs:label "checkin";
  schema:domainIncludes schema:Thing;
  schema:rangeIncludes schema:CheckInAction;
  rdfs:comment "Relates a Thing with an expression of the attendance by an individual with that thing." .

ys:checkins a rdf:Property;
  rdfs:label "checkins";
  schema:domainIncludes schema:Thing;
  schema:rangeIncludes schema:ItemList;
  rdfs:comment "Plural form of follow used to provide a paginated list of Actions." .

ys:contributor a rdf:Property;
  rdfs:label "contributor";
  schema:domainIncludes schema:Organization,
    schema:Event;
  schema:rangeIncludes ys:Contribution;
  rdfs:comment "Relates an organization or event with one or more Contributions to the event. An example
would be Willie Mays playing for the 1960 San Francisco Giants as a Center Fielder. It can also be used to
describe a contribution to a specific game or play." .

ys:contributors a rdf:Property;
  rdfs:label "contributors";
  schema:domainIncludes schema:Organization,
    schema:Event;
  schema:rangeIncludes schema:ItemList;
  rdfs:comment "Plural form of contributor used to provide a paginated list of Contributions." .

ys:discipline a rdf:Property;
  rdfs:label "discipline";
  schema:domainIncludes schema:SportsTeam;
  schema:rangeIncludes ys:Discipline;
  rdfs:comment "Relates a team with an entity describing the sports discipline exercised by the team." .

ys:follow a rdf:Property;
  rdfs:label "follow";
  schema:domainIncludes schema:Thing;
  schema:rangeIncludes schema:BefriendAction,
    schema:SubscribeAction,
    schema:RegisterAction;
  rdfs:comment "Describes the social connectedness to Things by individuals." .

ys:follows a rdf:Property;
  rdfs:label "follows";
  schema:domainIncludes schema:Thing;
  schema:rangeIncludes schema:ItemList;
  rdfs:comment "Plural form of follow used to provide a paginated list of Actions." .

ys:interest a rdf:Property;
```

```
  rdfs:label "interest";
  schema:domainIncludes schema:Thing;
  schema:rangeIncludes schema:ReactAction;
  rdfs:comment "Relates a Thing with expressed interests in that Thing." .

ys:interests a rdf:Property;
  rdfs:label "interesets";
  schema:domainIncludes schema:Thing;
  schema:rangeIncludes schema:ItemList;
  rdfs:comment "Plural form of interest used to provide a paginated list of reactions." .

ys:role a rdf:Property;
  rdfs:label "role";
  schema:domainIncludes ys:Contribution;
  schema:rangeIncludes ys:Role;
  rdfs:comment "The role of an agent as part of a Contribution." .

ys:team a rdf:Property;
  rdfs:label "team";
  schema:domainIncludes ys:Season;
  schema:rangeIncludes schema:SportsTeam;
  rdfs:comment "A Team associated with a Season" .
```