Dressing Fashion Trends

Phase II

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Contents

1 Group Members

1.1 Details

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2 Methodology

2.1 Knowledge Acquisition

We have visited various websites related to dressing fashions to find some data sources of data like taxonomy or any ontology related to our domain. Then we found some domain-specific ontologies on GitHub, we have also included taxonomy, general ontology resources and ontology statements. After pruning and enrichment, we adjusted those resources in our ontology according to our requirements.

2.2 Reusing Resources

Domain-Specific Ontological Resource:
https://raw.githubusercontent.com/danielamariei/clothing-ontology/master/tbox/clothing-ontology.ttl
General Ontology Resources:
https://schema.org/Person
Statements Reuse:
http://www.ontologydesignpatterns.org/cp/owl/partof.owl
Taxonomy :
https://yesplz.ai/resource/demystifying-fashion-taxonomies-what-do-customers-really-want.html

3 Ontology Structure

3.1 Classes

The class structure is like this
1. Colour
2. Event
3. Clothing
4. Clothing_sizes
5. Dress_code
6. Season
7. Shape
8. Weather
9. AgeGroup
10. BodyShape
11. BrowsingHistory
12. Budget

13. BusinessMeeting
14. CasualEvents
15. ClothingTexture
16. Club
17. Coat
18. DinnerParty
19. Dress
20. FashionBrand
21. FashionTrend
22. FormalEvents
23. Funneral
24. FunneralClothing
25. Gloves
26. Interview
27. Jeans
28. OutfitPlanning
29. Preference
30. Pyjama
31. PyjamaParty
32. Raincoat
33. RecommendationSystem
34. RegularFitTrousers
35. Shirt
36. SkinnyFitTrousers
37. Skirt
38. SlimFitTrousers
39. StylingTips
40. Suit
41. TShirt
42. Top
43. Trousers
44. Wedding
45. Person

3.2 Object Properties

1. dressSize (Subject:Dress, Object:Clothing_sizes)
2. hasPart (Subject:Dress, Object:Clothing)
3. isPartOf(Subject:Clothing, Object:Dress)
4. associatedWithFashionTrend(Subject:Colour — AgeGroup, Object:FashionTrend)
5. belongsTo(Subject:Person, Object:AgeGroup)
6. bodyShapeHasSuitableClothingForDressing(Subject:BodyShape, Object:Clothing)
7. browsingHistoryUtilizedBy(Subject:BrowsingHistory, Object:RecommendationSystem)
8.budgetDetailsUtilizedBy(Subject:Budget, Object:RecommendationSystem)
9. dressingCodeHasSuitableClothingForDressing(Subject:DressCode, Object:Clothing)

10. eventHasSuitableClothingForDressing(Subject:Event, Object:Clothing)
11. generatesRecommendationsFor(Subject:RecommendationSystem, Object:Person)
12. hasColour(Subject:Clothing, Object:Colour)
13. hasRelatedEvent(Subject:Dress, Object:Event)
14. hasSize(Subject:Clothing, Object:Clothing_sizes)
15. hasTexture(Subject:Clothing, Object:ClothingTexture)
16. influencedBy(Subject:Event — Clothing, Object:FashionTrend)
17. influencedByBrowsingHistory(Subject:Preference, Object:BrowsingHistory)
18. influences(Subject:FashionTrend, Object:Event — Clothing)
19. influencesPreferences(Subject:BrowsingHistory, Object:Preference)
20. influencesStylingChoicesFor(Subject:Budget, Object:Event)
21. isManufacteredBy(Subject:Clothing, Object:FashionBrand)
22. isSuitableForDressingCode(Subject:Clothing, Object:DressCode)
23. isSuitableToBeDressedAtEvent(Subject:Clothing, Object:Event)
24. isSuitableToBeDressedByBodyShape(Subject:Clothing, Object:BodyShape)
25. isSuitableToBeDressedInSeason(Subject:Clothing, Object:Season)
26. isSuitableToBeDressedOnWeather(Subject:Clothing, Object:Weather)
27. outfitPlanningRequiredBy(Subject:OutfitPlanning, Object:Person)
28. relatedToEvent(Subject:StylingTips, Object:Event)
29. relatedToFashionBrand(Subject:StylingTips, Object:FashionBrand)
30. relatedToFashionTrend(Subject:StylingTips, Object:FashionTrend)
31. requiresOutfitPlanning(Subject:Person, Object:OutfitPlanning)
32. seasonHasSuitableClothingForDressing(Subject:Season, Object:Clothing)
33. stylingChoicesInfluencedBy(Subject:Event, Object:Budget)
34. useRecommendationsGeneratedBy(Subject:Person, Object:RecommendationSystem)
35. useToDoRecommendation(Subject:RecommendationSystem, Object:BrowsingHistory — Preference)
36. usedInRecommendation(Subject:BrowsingHistory — Preference, Object:RecommendationSystem)
37. utilizesBrowsingHistory(Subject:RecommendationSystem, Object:BrowsingHistory)
38. utilizesBudgetDetails(Subject:RecommendationSystem, Object:Budget)
39. weatherHasSuitableClothingForDressing(Subject:Weather, Object:Clothing)

3.3 Data Properties

1. algorithmUsed(Subject:RecommendationSystem, Object:string)
2. amount(Subject:Budget, Object:float)
3. budgetRange(Subject:OutfitPlanning, Object:string)
4. colorName(Subject:Colour, Object:string)
5. currency(Subject:Budget, Object:string)
6. duration(Subject:BrowsingHistory, Object:string)
7. eventDescription(Subject:OutfitPlanning, Object:string)
8. eventName(Subject:Event, Object:string)
9. eventVenu(Subject:Event, Object:string)
10. fashionBrandName(Subject:FashionBrand, Object:string)
11. fashionTrendName(Subject:FashionTrend, Object:string)

12. hasBrand(Subject:Dress, Object:string)
13. hasDetail(Subject:Dress, Object:string)
14. hasLength(Subject:Dress, Object:string)
15. hasStyle(Subject:Dress, Object:string)
16. maxAge(Subject:AgeGroup, Object:integer)
17. minAge(Subject:AgeGroup, Object:integer)
18. performanceMetrics(Subject:RecommendationSystem, Object:string)
19. personalStyle(Subject:Preference, Object:string)
20. seasonName(Subject:Season, Object:string)
21. seasonduration(Subject:Season, Object:float)
22. stylingTipsDescription(Subject:StylingTips, Object:string)
23. timestamp(Subject:BrowsingHistory, Object:string)
24. visitedPages(Subject:BrowsingHistory, Object:string)
25. weatherName(Subject:Weather, Object:string)
26. familyName(Subject:Person, Object:string)

3.4 Property Restrictions

1. minAge exactly 1 rdfs:Literal
2. maxAge exactly 1 rdfs:Literal
3. colorName exactly 1 rdfs:Literal
4. eventVenu exactly 1 rdfs:Literal
5. eventName exactly 1 rdfs:Literal
6. isSuitableForDressingCode exactly 1 dbpedia:Dress_code
7. hasTexture some ClothingTexture
8. hasColour some dbo:Colour
9. seasonName exactly 1 rdfs:Literal
10. weatherName exactly 1 rdfs:Literal
11. hasStyle exactly 1 rdfs:Literal
12. hasPart some dbpedia:Clothing
13. hasBrand exactly 1 rdfs:Literal
14. hasLength exactly 1 rdfs:Literal
15. hasRelatedEvent some dbo:Event
16. isManufacteredBy exactly 1 FashionBrand
17. AgeGroup or (associatedWithFashionTrend some dbo:Colour)
18. familyName exactly 1 rdfs:Literal
19. belongsTo exactly 1 owl:Thing

4 Modules

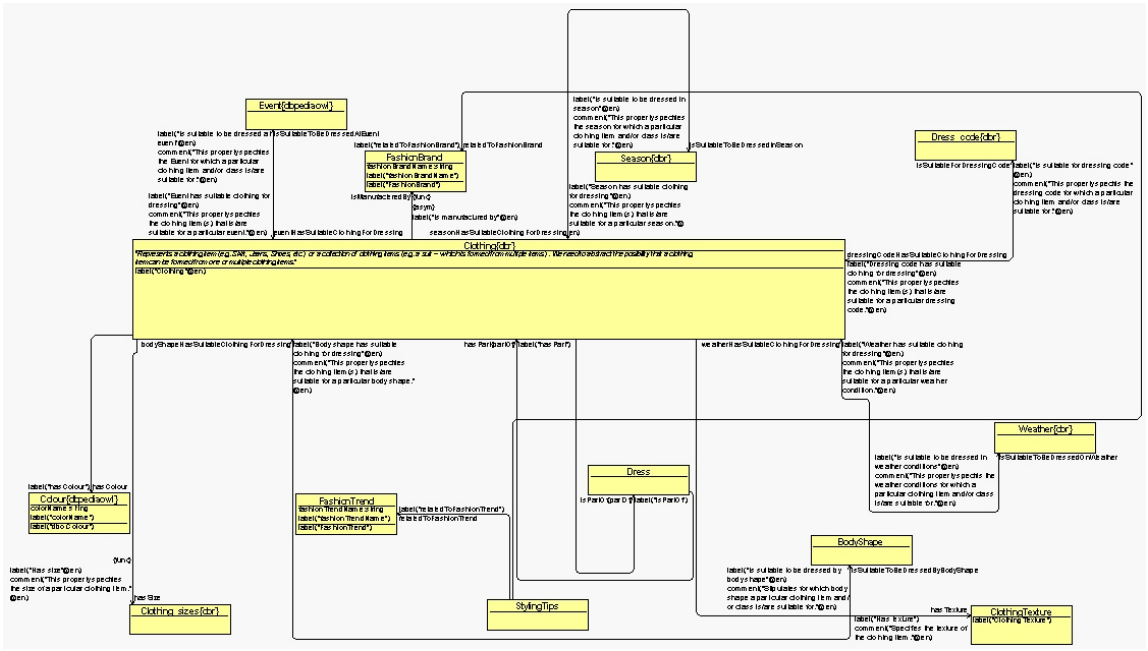

Figure 1: Fashion Components

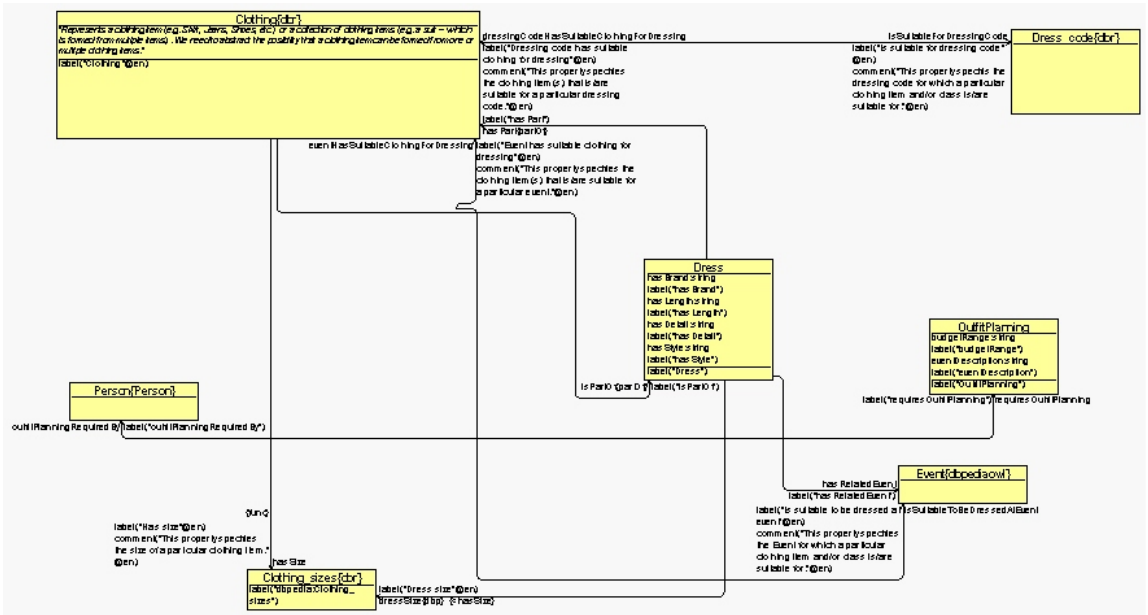

Figure 2: Outfit Planing And Details

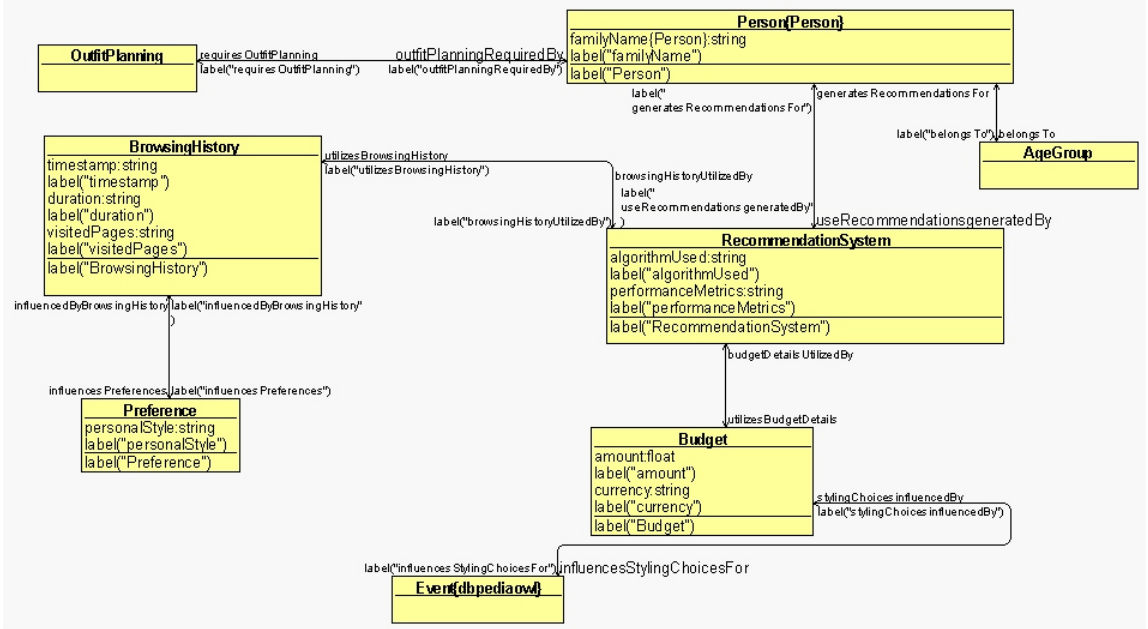

Figure 3: Personalization and Preferences

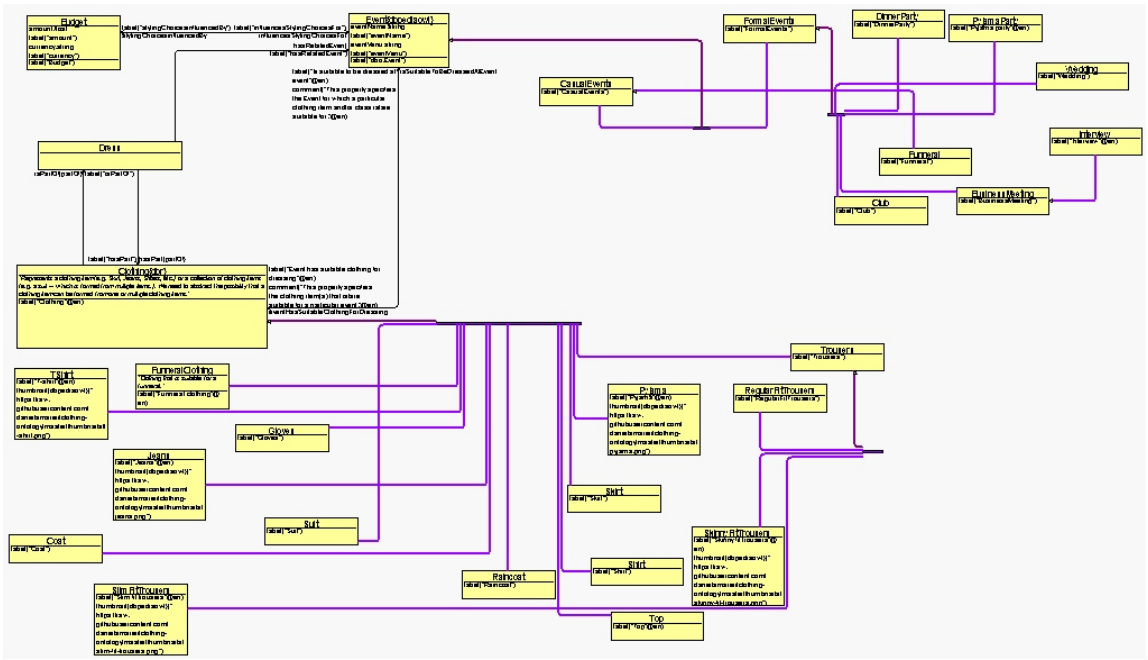

Figure 4: Events

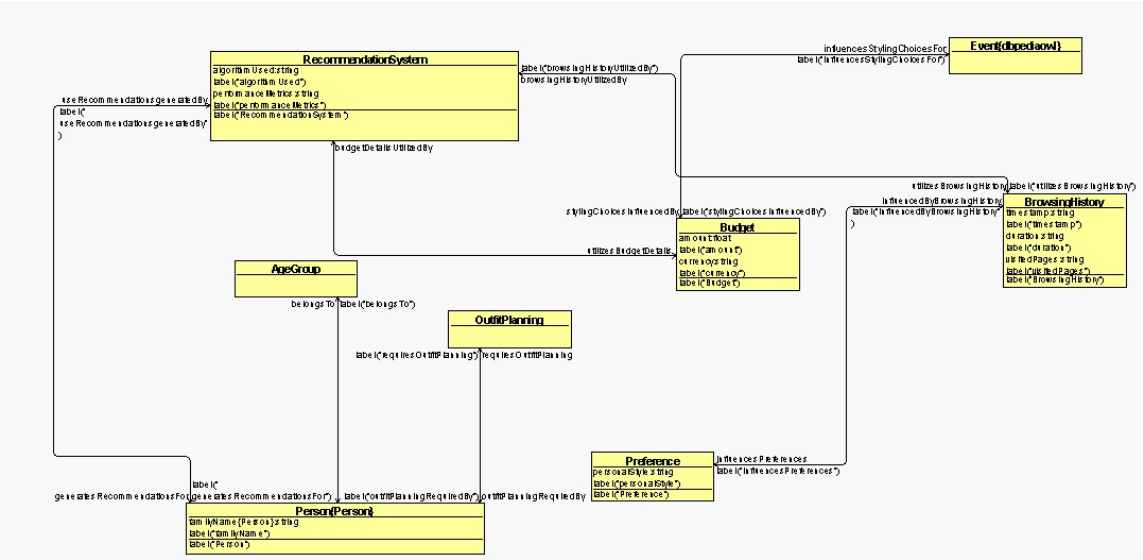

Figure 5: Recommendation System