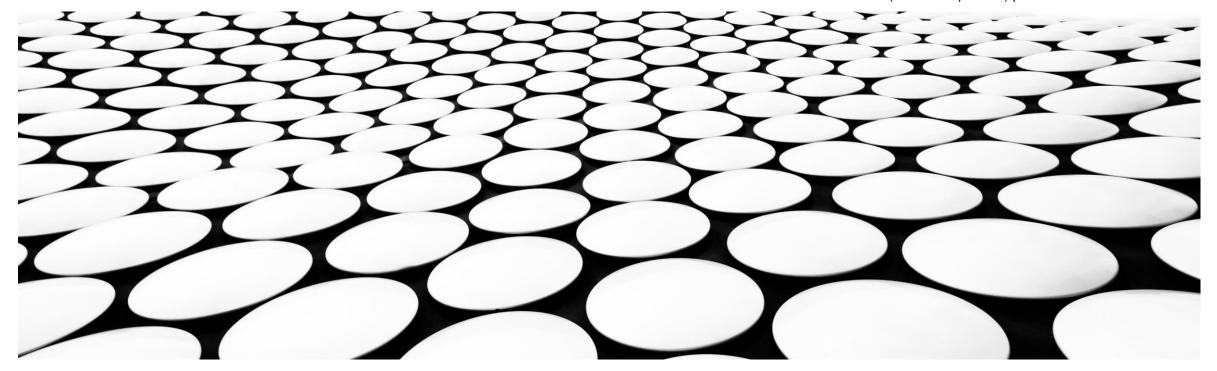
NO - NUTRITION ONTOLOGY

ALESSANDRO MARRAZZO (MATR. 898842)

Dipartimento d'Informatica, Università di Torino.

Esame di Modellazione concettuale per il web semantico (A.A. 2019/2020) prof.ssa Rossana Damiano



INDEX

- 1 TASSONOMA DELLE CLASSI
- 2 TEMPLATE
- 3 DIAGRAMMA DI INTERAZIONE
- 4 MOKUP
- 5 ESEMPI DI INTERAZIONE
- 6 QUERY SPARQL
- 7 ESEMPI DI INDIVIDUI

1 TASSONOMIA DELLE CLASSI

Gerarchia delle classi dell'ontologia sviluppata

STATISTICHE

46 Classi

25 Object Properties

21 Data Properties

87 Individui

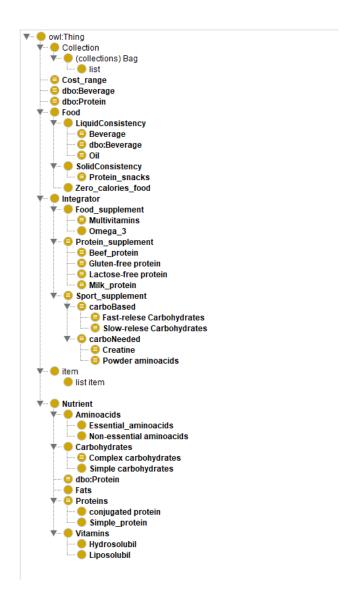
17 Regole SWRL

Ontologie allineate:

DBPedia Ontology

Ontology pattern:

List



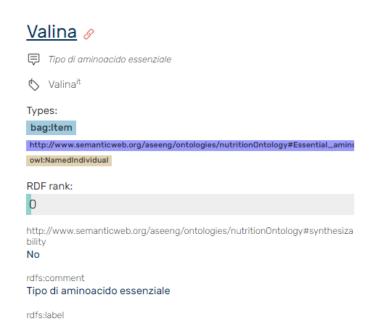
2 TEMPLATE

Principali template utilizzati per rappresentare i dati

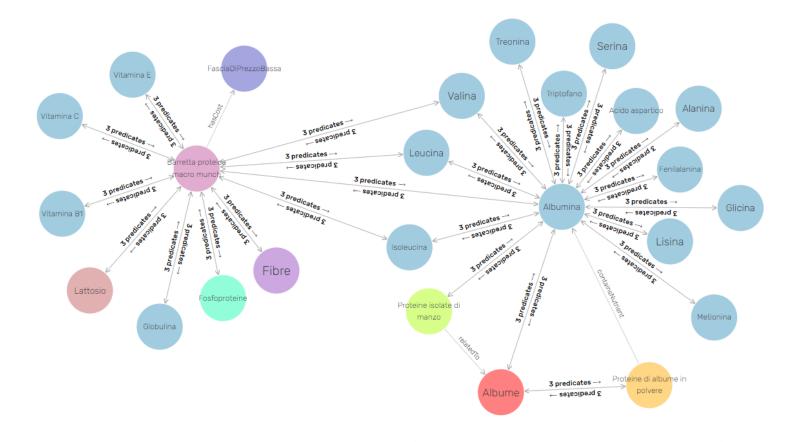
SWRL rule: aminoacidi essenziali

synthesizability(?aminoacid, "No") ^ Aminoacids(?aminoacid) -> Essential_aminoacids(?aminoacid)

Property chain: containsNutrient hasIngredient o hasNutrient



Valina



SWRL rules:

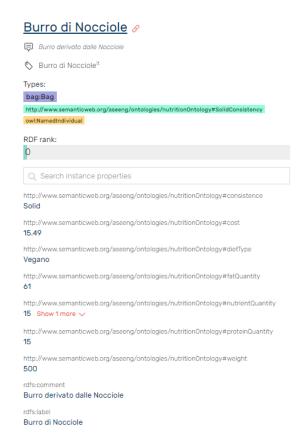
Cibi a prezzo basso:

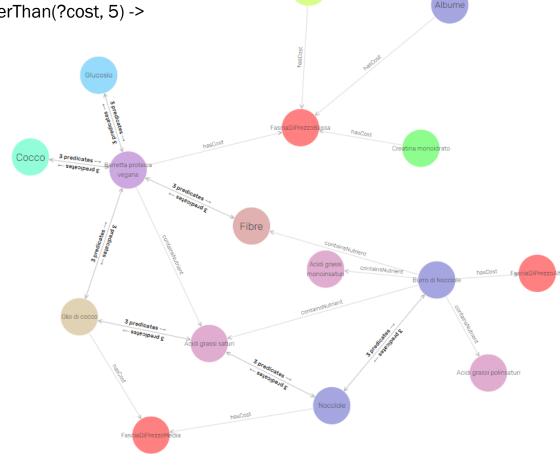
Food(?food) ^ cost(?food, ?cost) ^ swrlb:lessThan(?cost, 5) -> hasCost(?food, FasciaDiPrezzoBassa) Cibi a prezzo alto:

Food(?food) ^ cost(?food, ?cost) ^ swrlb:greaterThan(?cost, 15) -> hasCost(?food, FasciaDiPrezzoAlta) Cibi a prezzo medio:

Food(?food) ^ cost(?food, ?cost) ^ swrlb:lessThan(?cost, 15) ^ swrlb:greaterThan(?cost, 5) ->

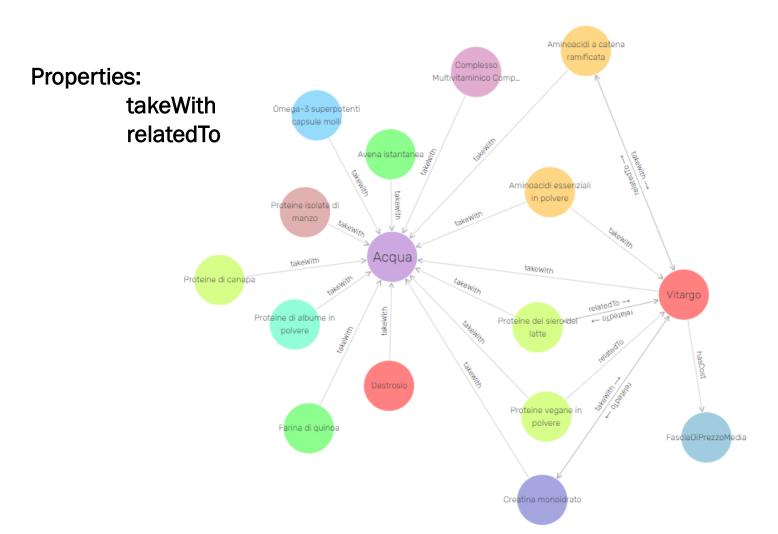
hasCost(?food, no:FasciaDiPrezzoMedia)

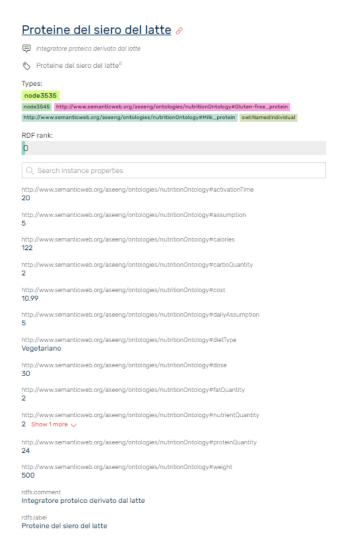




SWRL rule:

omega3: Integrator(?int) ^ fatType(?fat, "essenziali") ^ Fats(?fat) ^ hasNutrient(?int, ?fat) -> Omega_3(?fat)





Food collection Integrator collection

hasIngredient e ingredientOf sono irriflessive



| 2 Audition Christogy Mandorle Supplement Audition Christogy Mandorle Supplement Audition Christogy Mandorle Supplement Audition Christogy Mandorle Auditio | 1 | nutritionOntology:Mandorle | bag:hasitem | nutritionOntology:Acidi_grassi_Monoinsaturi |
|--|----|----------------------------|------------------------------------|---|
| 4 multicorOntologyMandorie togy selection of togy year don't to be plantiem nutritionOntology year and togy year and y | 2 | nutritionOntology:Mandorle | bag:hasitem | nutritionOntology:Acidi_grassi_Polinsaturi |
| 5 multitor/Ontology/Mandorie togismon multitor/Ontology/Mandorie togismon multitor/Ontology/Mandorie togismon multitor/Ontology/Mandorie collectioneritity/bacMember multitor/Ontology/Mandorie multitor/Ontology/Mandorie multitor/Ontology/Contrology/Mandorie multitor/Ontology/Mandorie multitor/Ontology/Contrology/Mandorie multitor/Ontology/Mandorie multito | 3 | nutritionOntology:Mandorle | bag:hasitem | nutritionOntology:Fibre |
| A multiton-Ontology-Mandonie topology-Anadonie collectioner-Bity-haw-Member multiton-Ontology-Acad. grassi. Mandonie nativitation-Ontology-Acad. grassi. Mandonie collectioner-Bity-haw-Member multiton-Ontology-Acad. grassi. Mandonie collectioner-Bity-haw-Member multiton-Ontology-Acad. grassi. Mandonie collectioner-Bity-haw-Member multiton-Ontology-Fibre multiton-Ontology-Fibre multiton-Ontology-Mandonie collectioner-Bity-haw-Member multiton-Ontology-Fibre multiton-Ontology-Mandonie collectioner-Bity-haw-Member multiton-Ontology-Fibre multiton-Ontology-Mandonie collectioner-Bity-haw-Member multiton-Ontology-Mandonie collectioner-Bity-haw-Member multiton-Ontology-Mandonie collectioner-Bity-haw-Member multiton-Ontology-Mandonie multiton-Ontology-States-Bity-haw-Member multiton-Ontology-Mandonie multiton-Ontology-States-Bity-haw-Member multiton-Ontology-Mandonie multiton-Ontology-States-Bity-haw-Mandonie multiton-Ontolo | 4 | nutritionOntology:Mandorle | bag:hasitem | nutritionOntology:Vitamina_B1 |
| 7 nutrition Christogy Mandonie collectioner Eily has Marcher nutrition Christogy Acid. great J Monoironaluri nutrition Christogy Mandonie collectioner Eily has Marcher nutrition Christogy Fixer nutrition Chris | 5 | nutritionOntology:Mandorle | bag:hasitem | nutritionOntology:Vitamina_B7 |
| a nutrition/Ontology/Mandorle collectionentity/banMember nutrition/Ontology/Este nutrition/Ontology/State collectionentity/banMember nutrition/Ontology/State nutrition/Ontology/State nutrition/Ontology/State nutrition/Ontology/State nutrition/Ontology/State nutrition/Ontology/State nutrition/Ontology/Mandorle collectionentity/banMember nutrition/Ontology/Mandorle collectionentity/banMember nutrition/Ontology/Mandorle n | 6 | nutritionOntology:Mandorle | bagitemOf | nutritionOntology:Burro_di_Mandorle |
| 0 nutrition/Ontology/Mandorite catestionentity has Member nutrition/Ontology/Starte 10 nutrition/Ontology/Mandorite catestionentity has Member nutrition/Ontology/Mandorite 11 nutrition/Ontology/Mandorite catestionentity has Member? nutrition/Ontology/Mandorite 12 nutrition/Ontology/Mandorite catestionentity has Member? nutrition/Ontology/Mandorite 13 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 14 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 15 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 16 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 17 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 18 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 19 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 20 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite 21 nutrition/Ontology/Mandorite nutrition/Ontology/Mandorite nutrition/Ontology | 7 | nutritionOntology:Mandorle | collectionentity:hasMember | nutritionOntology:Acidi_grassi_Monoinsaturi |
| 10 nutrition/Ontology/Mandorie collectionentily/basMember nutrition/Ontology/Mandorie collectionentily/basMember nutrition/Ontology/Mandorie collectionentily/basMember nutrition/Ontology/Mandorie collectionentily/basMember nutrition/Ontology/Mandorie nutrition/Ontology/Carriage 13 nutrition/Ontology/Mandorie nutrition/Ontology/carriage 14 nutrition/Ontology/Mandorie nutrition/Ontology/carriage/collection/ontology/carriage/collection/ontology/carriage/collection/ontology/carriage/collection/ontology/carriage/collection/ontology/carriage/collection/ontology/carriage/collection/carriage/carriage/collection/carriage/collection/carriage/collection/carriage/collection/carriage/collection/carriage/collection/carriage/carriage/collection/carriage/ | 8 | nutritionOntology:Mandorle | collectionentity:hasMember | nutritionOntology:Acidi_grassi_Polinsaturi |
| 11 nutritionOntology/Mandorie collectionentity/basMember nutritionOntology/Mandorie collectionentity/basMember nutritionOntology/Mandorie collectionentity/basMember nutritionOntology/Mandorie nutritionOntology/calories 450° mutritionOntology/Mandorie nutritionOntology/calories 550° mutritionOntology/Mandorie nutritionOntology/deff)pe 9° mutritionOntology/Mandorie nutritionOntology/deff)pe 9° mutritionOntology/Mandorie nutritionOntology/deff)pe 9° mutritionOntology/Mandorie nutritionOntology/factionarity 55° mutritionOntology/Mandorie nutritionOntology/mandorie n | 9 | nutritionOntology:Mandorle | collectionentity:hasMember | nutritionOntology:Fibre |
| 12 nutrition Ontology Mandorie collection entity is Member Of nutrition Ontology Euro _ d Mandorie 13 nutrition Ontology Mandorie nutrition Ontology carbo Quantity '7" *********************************** | 10 | nutritionOntology:Mandorle | collectionentity:hasMember | nutritionOntology:Vitamina_B1 |
| 13 nubrition Ontology Mandorie nutrition Ontology casto Quantity "y" "net risque" 14 nutrition Ontology Mandorie nutrition Ontology casto Quantity "y" "net risque" 15 nubrition Ontology Mandorie nutrition Ontology casto Quantity "y" "net risque" 16 nutrition Ontology Mandorie nutrition Ontology casto Quantity "Yegaro" 17 nutrition Ontology Mandorie nutrition Ontology delive "Vegaro" 18 nutrition Ontology Mandorie nutrition Ontology delive nutrition Ontology delive nutrition Ontology Mandorie nutrition Ontology Association nutrition Ontology Mandorie nutrition Ontology Mandorie nutrition Ontology Mandorie nutrition Ontology Association nutrition Ontology Mandorie nutrition Ontology Mandori | 11 | nutritionOntology:Mandorle | collectionentity:hasMember | nutritionOntology:Vitamina_B7 |
| 14 nutritionChiology/Mandorle nutritionChiology/astroduce site of | 12 | nutritionOntology:Mandorle | collectionentity/isMemberOf | nutritionOntology:Burro_di_Mandorle |
| nutritionOntology/Mandorle nutritionOntology/Continuence nutritionOntology/Mandorle nutritionOntology/InternitionOntology/ | 13 | nutritionOntology:Mandorle | nutritionOntology:calories | "612" "xxtmleger |
| 10 nutritionOntologyMandorle nutritionOntologyxast "12.49" nutritionOntologyxast "12.49" nutritionOntologyxast | 14 | nutritionOntology:Mandorle | nutritionOntology:carboQuantity | "7"":oxt:inleger |
| nutritionOntologyMandorle nutritionOntologyAssideType 'Vegano' nutritionOntologyMandorle nutritionOntologyAssideType nutritionOntologyMandorle nutri | 15 | nutritionOntology:Mandorle | nutritionOntology:consistence | "Solid" |
| nutritionOntology Mandorle nutritionOntology fatDuantity "55"-scatchage nutritionOntology Association nutritionOntology Mandorle nutritionOntology fatSociation nutritionOntology Mandorle rdf.type bagstem nutritionOntology Mandorle rdf.type nutritionOntology food nutritionOntology Mandorle rdf.type nutritionOntology food nutritionOntology Mandorle rdf.type overMandorle rdf.type nutritionOntology Mandorle rdf.type nutritionOntology Mandorle rdf.type nutritionOntology Mandorle rdf.type nutritionOntology Mandorle rdf.type rutritionOntology Mandor | 16 | nutritionOntology:Mandorle | nutritionOntology:cost | *12.49*"xxtdecmal |
| nutritionOntology-Mandorle nutritionOntology-has-Nutrient nutritionOntology-AcidigrassiMonoinsaturi nutritionOntology-Mandorle nutritionOntology-has-Nutrient nutritionOntology-AcidigrassiMonoinsaturi nutritionOntology-Mandorle nutritionOntology-has-Nutrient nutritionOntology-AcidigrassiPolinsaturi nutritionOntology-Mandorle nutritionOntology-has-Nutrient nutritionOntology-fittre nutritionOntology-Mandorle nutritionOntology-has-Nutrient nutritionOntology-Nitamina_B1 nutritionOntology-Mandorle nutritionOntology-has-Nutrient nutritionOntology-Nitamina_B1 nutritionOntology-Mandorle nutritionOntology-nutrientOntology-Nitamina_B7 nutritionOntology-Mandorle nutritionOntology-nutrientOuntology-Nitamina_B7 nutritionOntology-Mandorle nutritionOntology-nutrientOuntology-Nitamina_B7 nutritionOntology-Mandorle nutritionOntology-nutrientOuntology-Nitamina_B7 nutritionOntology-Mandorle nutritionOntology-nutrientOuntology-nutrientOuntology-nutrientOuntology-Nitamina_B7 nutritionOntology-Mandorle nutritionOntology-nutrientOuntology-nutritionOntology-nutrientOuntology-nutrien | 17 | nutritionOntology:Mandorle | nutritionOntology:dietType | "Vegano" |
| nutritionOntology:Mandorle nutritionOntology:AssNutrient nutrition | 18 | nutritionOntology:Mandorle | nutritionOntology:fatQuantity | *56*"xedinfleger |
| nutritionOntology/Mandorle nutritionOntology/has/Nutrient nutritionOntology/has/Nutrient nutritionOntology/AssolutionOntology/has/Nutrient nutritionOntology/has/Nutrient nutritionOntology/has/Nutrient nutritionOntology/lamina_B1 nutritionOntology/Mandorle nutritionOntology/has/Nutrient nutritionOntology/Vitamina_B1 nutritionOntology/Mandorle nutritionOntology/has/Nutrient nutritionOntology/Vitamina_B7 nutritionOntology/Mandorle nutritionOntology/nutrientOutology/Mandorle nutritionOntology/nutrientOutology/Mandorle nutritionOntology/nutrientOutology/Mandorle nutritionOntology/nutrientOutology/mandorle nutritionOntology/nutrientOutology/nutrientOutology/mandorle nutritionOntology/nutrientOutology/mandorle nutritionOntology/mandorle rdf:type bag/Bag nutritionOntology/Mandorle rdf:type bag/tem collectionentity/Collection nutritionOntology/mandorle rdf:type nutritionOntology/solidConsistency rdf:type nutritionOntology/solidConsistency rdf:type owtNamedndvidual | 19 | nutritionOntology:Mandorle | nutritionOntology:hasCost | nutritionOntology:FasciaDiPrezzoMedia |
| nutritionOntology:Mandorle nutritionOntology:hasNutrient nutritionOntology:Fibre nutritionOntology:Mandorle nutritionOntology:hasNutrient nutritionOntology:Mitamina_B1 nutritionOntology:Mandorle nutritionOntology:hasNutrient nutritionOntology:Mitamina_B7 nutritionOntology:Mandorle nutritionOntology:hasNutrient nutritionOntology:Murno_di_Mandorle nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "24" nutritionOntology:Murno_di_Mandorle nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "55" nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "7" nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "7" nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "7" nutritionOntology:Mandorle rdf:type bag:flam nutritionOntology:Mandorle rdf:type collection-nutritionOntology:Food nutritionOntology:Mandorle rdf:type nutritionOntology:SolidConsistency nutritionOntology:Mandorle rdf:type nutritionOntology:SolidConsistency nutritionOntology:Mandorle rdf:type nutritionOntology:SolidConsistency nutritionOntology:Mandorle rdf:type nutritionOntology:SolidConsistency nutritionOntology:Mandorle rdf:type owtNamedIndividual rfuttionOntology:Mandorle rdf:type owtNamedIndividual rfuttionOntology:Mandorle rdf:type owtNamedIndividual rfuttionOntology:Mandorle rdf:type owtNamedIndividual | 20 | nutritionOntology:Mandorle | nutritionOntology:hasNutrient | nutritionOntology:Acidi_grassi_Monoinsaturi |
| 23 nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:Mandorle 24 nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:Mandorle 25 nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:Mandorle 26 nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:Mandorle 27 nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:Mandorle 28 nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:Mandorle 29 nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:Mandorle 30 nutritionOntology:Mandorle rdf:type bag:Bag 32 nutritionOntology:Mandorle rdf:type bag:Item 33 nutritionOntology:Mandorle rdf:type collectionentity:Collection 34 nutritionOntology:Mandorle rdf:type nutritionOntology:SolidConsistency 35 nutritionOntology:Mandorle rdf:type owtNamedindividual 36 nutritionOntology:Mandorle rdf:type owtNam | 21 | nutritionOntology:Mandorle | nutritionOntology:hasNutrient | nutritionOntology:Acidi_grassi_Polinsaturi |
| nutritionOntology.Mandorle nutritionOntology.handorle rdf.type bag.flag nutritionOntology.handorle rdf.type collection nutritionOntology.handorle rdf.type rutritionOntology.handorle rdf.type nutritionOntology.handorle rdf.type rutritionOntology.handorle rdf.type r | 22 | nutritionOntology:Mandorle | nutritionOntology:hasNutrient | nutritionOntology:Fibre |
| nutritionOntology:Mandorle nutritionOntology:Mandorle nutritionOntology:IndexedientOf nutritionOntology:Mandorle rdf:type bag:Bag nutritionOntology:Mandorle rdf:type bag:Bag nutritionOntology:Mandorle rdf:type collectionentity:Collection nutritionOntology:Mandorle rdf:type nutritionOntology:Food nutritionOntology:Mandorle rdf:type nutritionOntology:Mandorle rdf:type nutritionOntology:Mandorle rdf:type nutritionOntology:Mandorle rdf:type nutritionOntology:Mandorle rdf:type nutritionOntology:Mandorle rdf:type rutritionOntology:Mandorle rdf:type nutritionOntology:Mandorle rdf:type rutritionOntology:Mandorle rdf:type rutritionOntology | 23 | nutritionOntology:Mandorle | nutritionOntology:hasNutrient | nutritionOntology:Vitamina_B1 |
| nutritionOntology.Mandorle nutritionOntology.nutrientQuantity "27" outrritages nutritionOntology.Mandorle nutritionOntology.nutrientQuantity "55" redurfages nutritionOntology.Mandorle nutritionOntology.nutrientQuantity "77" outrritages nutritionOntology.Mandorle nutritionOntology.nutrientQuantity "27" outrritages nutritionOntology.Mandorle nutritionOntology.nutrientQuantity "27" outrritages nutritionOntology.Mandorle nutritionOntology.nueight "500" outrritages nutritionOntology.Mandorle rdf:type bag.Bag nutritionOntology.Mandorle rdf:type bag.tlem nutritionOntology.Mandorle rdf:type collectionentity.Collection nutritionOntology.Mandorle rdf:type nutritionOntology.Food nutritionOntology.Mandorle rdf:type nutritionOntology.SclidConsistency nutritionOntology.Mandorle rdf:type owtNamedindvidual nutritionOntology.Mandorle rdf:type rutritionOntology.Mandorle rdf:type rutritio | 24 | nutritionOntology:Mandorle | nutritionOntology:hasNutrient | nutritionOntology:Vitamina_B7 |
| nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "55" catarrhager nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "7" restaintager nutritionOntology:Mandorle nutritionOntology:nutrientQuantity "27" restaintager nutritionOntology:Mandorle nutritionOntology:Nandorle nutritionOntology:Nandorle nutritionOntology:Nandorle nutritionOntology:Nandorle rdf:type bag:Bag nutritionOntology:Mandorle rdf:type bag:tlem nutritionOntology:Mandorle rdf:type collectionentity:Collection nutritionOntology:Mandorle rdf:type nutritionOntology:Food nutritionOntology:Mandorle rdf:type nutritionOntology:Food nutritionOntology:Mandorle rdf:type nutritionOntology:SolidConsistency nutritionOntology:Mandorle rdf:type rutritionOntology:Mandorle rdf:type rutritionOntology | 25 | nutritionOntology:Mandorle | nutritionOntology:ingredientOf | nutritionOntology:Burro_di_Mandorle |
| nutritionOntology.Mandorle nutritionOntology.rutrientQuantity "7" restintager 29 nutritionOntology.Mandorle nutritionOntology.rutrientQuantity "21" restintager 30 nutritionOntology.Mandorle nutritionOntology.weight "500" restintager 31 nutritionOntology.Mandorle rdf.type bag.Bag 32 nutritionOntology.Mandorle rdf.type bag.Bag 33 nutritionOntology.Mandorle rdf.type collection 34 nutritionOntology.Mandorle rdf.type nutritionOntology.Mandorle rdf.type nutritionOntology.Mandorle rdf.type collection 35 nutritionOntology.Mandorle rdf.type nutritionOntology.Food 36 nutritionOntology.Mandorle rdf.type rutritionOntology.Mandorle rdf.typ | 26 | nutritionOntology:Mandorle | nutritionOntology:nutrientQuantity | *21° xxxtimteger |
| nutritionOntology:Mandorle nutritionOntology:Rendorle nutritionOntology:Ren | 27 | nutritionOntology:Mandorle | nutritionOntology:nutrientQuantity | "55" "xidinteger |
| 30 nutritionOntology.Mandorte nutritionOntology.Wandorte 31 nutritionOntology.Mandorte rdf:type 32 nutritionOntology.Mandorte rdf:type 33 nutritionOntology.Mandorte rdf:type 34 nutritionOntology.Mandorte rdf:type 35 nutritionOntology.Mandorte rdf:type 36 nutritionOntology.Mandorte rdf:type 37 nutritionOntology.Mandorte rdf:type 38 nutritionOntology.Mandorte rdf:type 39 nutritionOntology.Mandorte rdf:type 30 nutritionOntology.Mandorte rdf:type 30 nutritionOntology.Mandorte rdf:type 31 nutritionOntology.Mandorte rdf:type 32 nutritionOntology.Mandorte rdf:type 33 nutritionOntology.Mandorte rdf:type 34 rdf:type owtNamedindividual 35 rdf:type rdf:type 36 rdf:type owtNamedindividual 37 rdf:type rdf:type 38 rdf:type rdf:type 39 rdf:type rdf:type 39 rdf:type rdf:type 39 rdf:type rdf:type | 28 | nutritionOntology:Mandorle | nutritionOntology:nutrientQuantity | *7*">xxdinteger |
| 131 nutritionOntologyMandorle rdf:type bag:Bag 132 nutritionOntologyMandorle rdf:type bag:Item 133 nutritionOntologyMandorle rdf:type collectionentity:Collection 134 nutritionOntologyMandorle rdf:type nutritionOntologyMandorle rdf:type nutritionOntologyMandorle rdf:type nutritionOntologyMandorle rdf:type nutritionOntologySolidConsistency 135 nutritionOntologyMandorle rdf:type owtNamedIndividual 137 nutritionOntologyMandorle rdf:scomment "Frutta secca*®t | 29 | nutritionOntology:Mandorle | nutritionOntology:proteinQuantity | *21° xxxtinteger |
| 32 nutritionOntology.Mandorle rdf.type bag3tem 33 nutritionOntology.Mandorle rdf.type collectionentity.Collection 34 nutritionOntology.Mandorle rdf.type nutritionOntology.Food 35 nutritionOntology.Mandorle rdf.type nutritionOntology.SolidConsistency 36 nutritionOntology.Mandorle rdf.type owtNamedIndividual 37 nutritionOntology.Mandorle rdf.scomment "Frutta secca*®t | 30 | nutritionOntology:Mandorle | nutritionOntology:weight | *500* - xxd:nteger |
| 33 nutritionOntology.Mandorle rdf:type collectionentity:Collection 34 nutritionOntology.Mandorle rdf:type nutritionOntology.Food 35 nutritionOntology.Mandorle rdf:type nutritionOntology.SolidConsistency 36 nutritionOntology.Mandorle rdf:type owtNamedindividual 37 nutritionOntology.Mandorle rdf:scomment "Frutta secca** "Frutta | 31 | nutritionOntology:Mandorle | rdf:type | bag:Bag |
| 34 nutritionOntologyMandorle rdf:type nutritionOntologySolidConsistency 35 nutritionOntologyMandorle rdf:type nutritionOntologySolidConsistency 36 nutritionOntologyMandorle rdf:type owtNamedIndividual 37 nutritionOntologyMandorle rdf:scomment "Fruits secca"®I | 32 | nutritionOntology:Mandorle | rdf:type | bagiltem |
| 35 nutritionOntology:Mandorle rdf:type nutritionOntology:SolidConsistency 36 nutritionOntology:Mandorle rdf:type owtNamedIndividual 37 nutritionOntology:Mandorle rdf:scomment "Fruita secca" ^{®1} | 33 | nutritionOntology:Mandorle | rdf:type | collectionentity:Collection |
| 36 nutritionΩntology:Mandorle rdf.type owtNamedIndividual 37 nutritionΩntology:Mandorle rdfscomment "Frutta secca" ^{®1} | 34 | nutritionOntology:Mandorle | rdf:type | nutritionOntology:Food |
| 37 nutritionOntology:Mandorie rdfs:comment "Frutta secca"®1 | 35 | nutritionOntology:Mandorle | rdf:type | nutritionOntology:SolidConsistency |
| - | 36 | nutritionOntology:Mandorle | rdf:type | owt:NamedIndividual |
| 38 nutritionOntologyMandorte rdfsdabel "Mandorte" | 37 | nutritionOntology:Mandorle | rdfs:comment | "Frutta secca"® ⁽¹ |
| | 38 | nutritionOntology:Mandorle | rdfsdabel | "Mandorle"® ⁽¹⁾ |

Proteine vegane in polvere &

🗐 Integratore proteico vegano

Proteine vegane in polvereit

Types:

node112

node117 node187 nutritionOntology:Gluten-free_protein nutritionOntology:Lactose-free_protein nutritionOntology:Sport_supplement owl:NamedIndividual

RDF rank:

Q Search instance properties

nutritionOntology:activationTime

30

nutritionOntology:assumption

nutritionOntology:calories 130

nutritionOntology:carboQuantity

nutritionOntology:cost

19.99

nutritionOntology:dailyAssumption

nutritionOntology:dietType Vegano

nutritionOntology:dose 35

nutritionOntology:fatQuantity

nutritionOntology:nutrientQuantity

2 Show 2 more 🗸

nutritionOntology:proteinQuantity

nutritionOntology:weight

500

rdfs:comment

Integratore proteico vegano

Proteine vegane in polvere

| 1 | nutritionOntology:Proteine_vegane_in_polvere | baghasitem | nutritionOntology:Fibre |
|----|--|------------------------------------|---|
| 2 | nutritionOntology:Proteine_vegane_in_polvere | collectionentity:hasMember | nutritionOntology:Fibre |
| 3 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:activationTime | *30*"xxd:nleger |
| 4 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:assumption | *3="xidinteger |
| 5 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:calories | *130*"xsstirtleger |
| 6 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:carboQuantity | *4*"'xsidinfeger |
| 7 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:cost | *19.99* "xxd:decimal |
| 8 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:dailyAssumption | *3*"xxdinteger |
| 9 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:dietType | "Vegano" |
| 10 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:dose | *35*"cedinfleger |
| 11 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:fatQuantity | *2* indinteger |
| 12 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:hasCost | nutritionOntology:FasciaDiPrezzoAlta |
| 13 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:hasNutrient | nutritionOntology:Fibre |
| 14 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:nutrientQuantity | *2***xxd:integer |
| 15 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:nutrientQuantity | *23*"xxdinteger |
| 16 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:nutrientQuantity | *A***xxdinfeger |
| 17 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:proteinQuantity | *23*"xxdinteger |
| 18 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:relatedTo | nutritionOntology:Vitargo |
| 19 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:takeWith | nutritionOntology:Acqua |
| 20 | nutritionOntology:Proteine_vegane_in_polvere | nutritionOntology:weight | "500" xxxbirtleger |
| 21 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | bag:Bag |
| 22 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | collectionentity:Collection |
| 23 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | nutritionOntology:Gluten-free_protein |
| 24 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | nutritionOntology:Integrator |
| 25 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | nutritionOntology:Lactose-free_protein |
| 26 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | nutritionOntology:Proteinsupplement |
| 27 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | nutritionOntology:Sport_supplement |
| 28 | nutritionOntology:Proteine_vegane_in_polvere | rdf:type | owl:NamedIndividual |
| 29 | nutritionOntology:Proteine_vegane_in_polvere | rdfs:comment | "Integratore proteico vegano" ^{®8} |
| 30 | nutritionOntology:Proteine_vegane_in_polvere | rdfsdabel | *Proteine vegane in polvere**** |

DETTAGLI IMPLEMENTATIVI

PROPRIETÀ INVERSE:

- hasNutrient inverse of nutrientOf
- hasIngredient inverse of ingredientOf
- hasElemente inverse of elementOf

PROPRIETÀ FUNZIONALI:

- hasCost

PROPRIETÀ IRRIFLESSIVE:

- hasIngredient
- ingredientOf
- relatedTo

PROPRIETÀ ASIMMETRICHE E IRRIFLESSIVE:

- takeWith

CLASSE ENUMERATA:

Cost_range Equivalent To:

{FasciaDiPrezzoAlta, FasciaDiPrezzoBassa, FasciaDiPrezzoMedia}

CLASSI DEFINITE:

Beverage LiquidConsistency and (fatQuantity some xsd:integer[<20])

Oil LiquidConsistency and (fatQuantity some xsd:integer[>20])

- **Protein_snack** SolidConsistency **and** (fatQuantity **some** xsd:integer[< 20]) **and** (proteinQuantity **some** xsd:integer[> 25])

- **Multivitamins** (Food_supplement **and** (hasNutrient **some** Hydrosolubil)) **or** (hasNutrient **some** Liposolubil)

- **Protein_supplement** Integrator **and** (carboQuantity **some** xsd:integer[< 5]) **and** (proteinQuantity **some** xsd:integer[> 13])

- Beef_protein Protein_supplement and (dietType value "Carnivoro")

Gluten-free protein
 Lactose-free protein
 Protein_supplement and (not (hasNutrient value Glutine))
 Protein_supplement and (not (hasNutrient value Lattosio))

- Milk_protein Protein_supplement and (hasNutrient value Lattosio)

- **Sport_supplement** (Integrator **and** (hasNutrient **some** Carbohydrates)) **or** (hasNutrient **some** Aminoacids)

CarboBased Sport_supplement and (carboQuantity some xsd:integer[> 5])
 Fast-relese Carbohydrates CarboBased and (activationTime some xsd:integer[< 30])

- Slow-relese Carbohydrates CarboBased and (activationTime some xsd:integer[> 30])

- **CarboNeeded** Sport_supplement **and** (takeWith **some** carboBased)

- **Creatine** carboNeeded **and** (hasNutrient **value** Creatina)

Powder_aminoacid carboNeeded and (hasNutrient some Aminoacids)

- **Protein** Nutrient **and** (hasElement **some** Aminoacids)

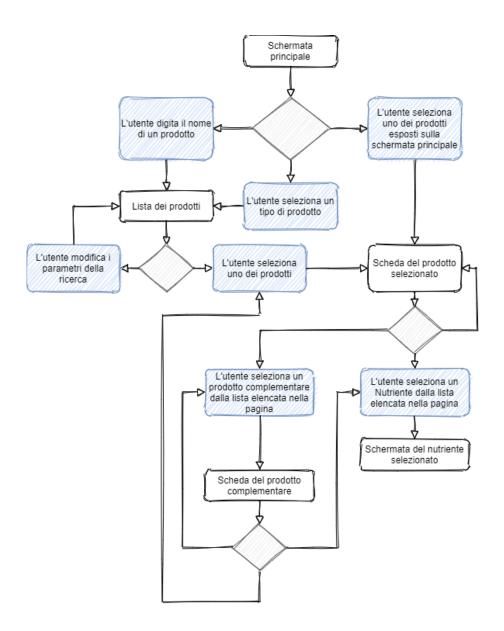
Complex_carbohydrates Carbohydrates and (baseUnity some xsd:integer[> 2])

Simple_carbohydrates Carbohydrates and (baseUnity some xsd:integer[< 3])

3 DIAGRAMMA DI INTERAZIONE

Possibile modello di interazione

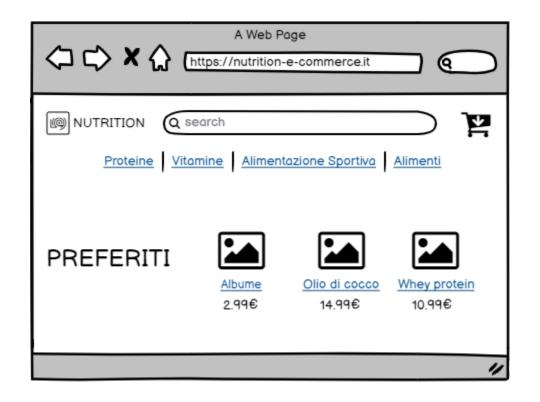
Diagramma di interazione di un utente con un'applicazione che utilizza l'ontologia.



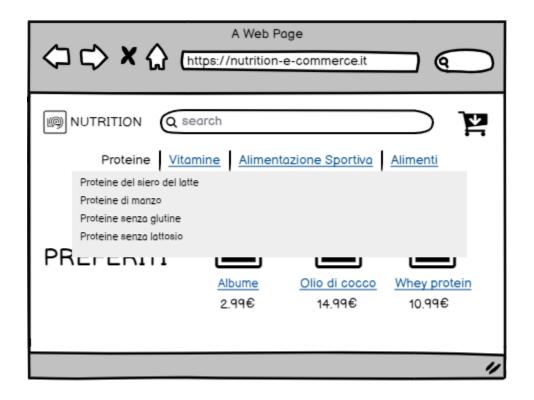
4 MOKUPS

Interfacce grafiche di possibili applicazioni basate su NO

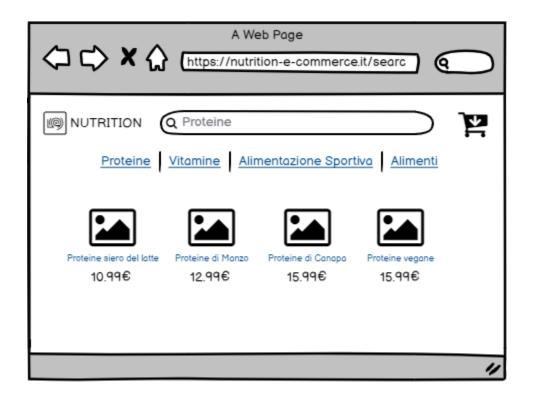
SCHERMATA PRINCIPALE



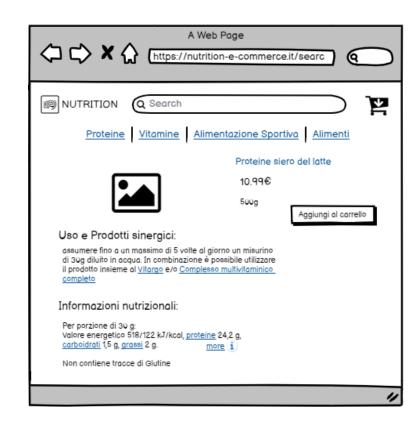
SELEZIONE PROTEINE



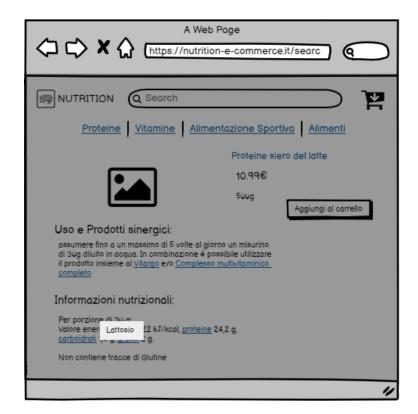
SEZIONE RICERCA



SCHEDA DEL PRODOTTO



FRAME DEI NUTRIENTI



5 ESEMPI D'INTERAZIONE

Possibili scenari d'uso dell'applicazione

ACQUISTO DI UN INTEGRATORE DI CARBOIDRATI A RILASCIO RAPIDO

- 1. Effettuo la ricerca Carboidrati a rilascio rapido tramite la barra di ricerca nella schermata principale oppure seleziono Alimentazione Sportiva > Carboidrati a rilascio rapido
- 2. Nella schermata successiva seleziono il tipo di Carboidrati a rilascio rapido
- 3. Leggo le modalità di utilizzo e i valori nutrizionali
- 4. Aggiungo al carrello il prodotto
- 5. Accedo al carrello e acquisto il prodotto

RICERCA DEL CONTENUTO AMMINOACIDICO DELL'ALBUME LIQUIDO

- 1. Cerco Albume liquido tramite la barra di ricerca
- 2. Nella schermata successiva seleziono il prodotto Albume liquido
- 3. Nella schermata vado su Informazioni nutrizionali seleziono Proteine
- 4. Nel frame che compare seleziono Albumina
- 5. Nel frame che viene modificato leggo gli aminoacidi che sono contenuti nell'Albumina

6 QUERY SPARQL

Esempi d'interrogazione dell'ontologia

PREFIX: http://www.semanticweb.org/aseeng/ontologies/nutritionOntology#>

PREFIX rdf: http://www.w3.org/1999/02/22-rdf-syntax-ns#

PREFIX owl: "> PREFIX owl: PREFIX owl: PREFIX owled: <a href="http://ww

PREFISSI:

PREFIX rdfs: http://www.w3.org/2000/01/rdf-schema#>

PREFIX xsd: http://www.w3.org/2001/XMLSchema*>

PREFIX foaf: http://www.xmlns.com/foaf/0.1

SOSTANZE CHE HANNO PROTEINE SEMPLICI PER VEGETARIANI

```
SELECT ?sostanza ?nutriente
WHERE {
     ?sostanza :hasNutrient ?nutriente.
     ?nutriente a :Simple_protein.
     {?sostanza :dietType "Vegetariano"}
     UNION {?sostanza :dietType "Vegano"}.
}
```

L'unione tra tipo di dieta Vegetariana e Vegana indica che l'essere Vegetariano ingloba anche l'essere Vegano

| | sostanza ♦ | nutriente \$ |
|---|---|-----------------------------|
| 1 | nutritionOntology:Albume | nutritionOntology:Albumina |
| 2 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Albumina |
| 3 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Globulina |
| 4 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:Albumina |

ALIMENTI CON I LORO NOMI ORDINATI IN BASE ALLA CONSISTENZA

| | alimenti \$ | name \$ | consistency \$ |
|----|---|---|----------------|
| 1 | nutritionOntology:Acqua | "Acqua" ^{@it} | "Liquid" |
| 2 | nutritionOntology:Albume | "Albume"®it | "Liquid" |
| 3 | nutritionOntology:Olio_di_Cocco | "Olio di cocco"®It | "Liquid" |
| 4 | nutritionOntology:Sciroppo_zenza_calorie | "Sciroppo senza calorie" ^{@lt} | "Liquid" |
| 5 | nutritionOntology:Anacardi | "Anacardi" ^{@it} | "Solid" |
| 6 | nutritionOntology:Barretta_proteica_macro_munch | "Barretta proteica macro munch"®it | "Solid" |
| 7 | nutritionOntology:Barretta_proteica_vegana | "Barretta proteica vegana" ^{@it} | "Solid" |
| 8 | nutritionOntology:Burro_di_Anacardi | "Burro di Anacardi"® ^t | "Solid" |
| 9 | nutritionOntology:Burro_di_Arachidi | "Burro di Arachidi" ^{@it} | "Solid" |
| 10 | nutritionOntology:Burro_di_Mandorle | "Burro di Mandorle" ^{@it} | "Solid" |
| 11 | nutritionOntology:Burro_di_Nocciole | "Burro di Nocciole"® ^{It} | "Solid" |
| 12 | nutritionOntology:Burro_di_Pistacchio | "Burro di Pistacchio"®It | "Solid" |
| 13 | nutritionOntology:Cocco | "Cocco"@it | "Solid" |
| 14 | nutritionOntology:Mandorle | "Mandorle"®it | "Solid" |
| 15 | nutritionOntology:Nocciole | "Nocciole" ^{@it} | "Solid" |

CIBI E INTEGRATORI POVERI DI GRASSI E CABOIDRATI (DIETETICI)

```
SELECT ?element ?fat ?carbo
WHERE {
          {?element a :Food.}
          UNION {?element a :Integrator.}
          ?element :fatQuantity ?fat.
          ?element :carboQuantity ?carbo.

FILTER(?fat < 30).
          FILTER(?carbo < 30).
}</pre>
```

Con il valore 30 indichiamo 30 grammi di grassi e carboidrati come soglia limite entro cui un cibo o integratore può essere considerato dietetico

| | element \$ | fat \$ | carbo \$ |
|---|---|--------------------|--------------------------------|
| 1 | nutritionOntology:Barretta_proteica_macro_munch | "14" - xsd:integer | "27" - xsd:integer |
| 2 | nutritionOntology:Barretta_proteica_vegana | "14" - xsd:integer | "23" ⁻ "xsd:integer |
| 3 | nutritionOntology:Sciroppo_zenza_calorie | "O" "xsd:integer | "0" "xsd:integer |
| 4 | nutritionOntology:Proteine_di_albume_in_polvere | "O" "xsd:integer | "2" xsd:integer |
| 5 | nutritionOntology:Proteine_isolate_di_manzo | "O" "xsd:integer | "O" "xsd.integer |
| 6 | nutritionOntology:Destrosio | "O" "xsd:integer | "23" xsd:integer |
| 7 | nutritionOntology:Proteine_del_siero_del_latte | "2" Tssd:integer | "2" "xsd:integer |
| 8 | nutritionOntology:Proteine_di_canapa | "4" "xsd:integer | "4" "xsd:integer |
| 9 | nutritionOntology:Proteine_vegane_in_polvere | "2"-"xsd:integer | "4" "xsd:integer |

NUTRIMENTI CONTENUTI NELLE BARRETTE PROTEICHE

```
SELECT ?barretta ?nutrimenti
WHERE {
    ?barretta a :Protein_snacks.
    {?barretta :hasNutrient ?nutrimenti.}
    UNION
    {?barretta :containsNutrient ?nutrimenti.}
```

Viene utilizzato UNION perché le barrette potrebbero contenere alimenti con relaitivi nutrienti che fanno quindi parte dei nutrienti delle barrette

| | barretta | nutrimenti \$ |
|----|---|---------------------------------------|
| 1 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Lattosio |
| 2 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Albumina |
| 3 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Isoleucina |
| 4 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Leucina |
| 5 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Valina |
| 6 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Fibre |
| 7 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Fosfoproteine |
| 8 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Globulina |
| 9 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Vitamina_B1 |
| 10 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:VitaminaC |
| 11 | nutritionOntology:Barretta_proteica_macro_munch | nutritionOntology:Vitamina_E |
| 12 | nutritionOntology:Barretta_proteica_vegana | nutritionOntology:Glucosio |
| 13 | nutritionOntology:Barretta_proteica_vegana | nutritionOntology:Fibre |
| 14 | nutritionOntology:Barretta_proteica_vegana | nutritionOntology:Acidi_grassi_Saturi |
| | | |

INTEGRATORE CON PIU ALTO VALORE ENERGETICO

```
SELECT (MAX(?integratore) AS ?piùenergetico)
WHERE{
    ?integratore a :Protein_supplement.
    ?integratore :calories ?calories.
}
```

| | piùenergetico | \$ |
|---|--|-----------|
| 1 | nutritionOntology:Proteine_vegane_in_polvere | |

INTEGRATORE DI PROTEINE E DI AMINOACIDI CHE COSTANO MENO DI 15 EURO ORDINATE PER COSTO DECRESCENTE

| | integrator \$ | cost \$ |
|---|--|----------------------------------|
| 1 | nutritionOntology:Proteine_di_albume_in_polvere | "14.99" - xsd:decimal |
| 2 | nutritionOntology:Proteine_isolate_di_manzo | "12.99" -xsd:decimal |
| 3 | nutritionOntology:Aminoacidi_essenziali_in_polvere | "11.99" Txsd:decimal |
| 4 | nutritionOntology:Proteine_del_siero_del_latte | "10.99" ^{-*xsd:decimal} |
| 5 | nutritionOntology:Aminoacidi_a_catena_ramificata | "5.39" ^{-*} xsd:decimal |
| 6 | nutritionOntology:Creatina_monoidrato | "3.99" xsd:decimal |

INTEGRATORI E ALIMENTI PER L'ASSUNZIONE DI AMINOACIDI ET Pentity ESSENZIALI

```
SELECT ?entity
WHERE{
    {?entity a :Integrator.}
    UNION {?entity a :Food.}
    {?entity :hasNutrient ?element.}
    UNION{
        ?entity :hasNutrient ?nutrient.
        ?nutrient :hasElement ?element.
    }UNION{
        ?entity :containsNutrient ?element.
    ?element a :Essential aminoacids.
} GROUP BY ?entity
```

Viene utilizzata l'unione perché gli integratori e alimenti possono contenere direttamente gli aminoacidi essenziali o contenere cibi che li contengono

| | entity \$ | |
|---|--|--|
| 1 | nutritionOntology:Aminoacidi_essenziali_in_polvere | |
| 2 | nutritionOntology:Barretta_proteica_macro_munch | |
| 3 | nutritionOntology:Aminoacidi_a_catena_ramificata | |
| 4 | nutritionOntology:Proteine_isolate_di_manzo | |
| 5 | nutritionOntology:Albume | |

7 ESEMPI DI INDIVIDUI

Individui definiti in modo più approfondito ai fini dimostrativi

Proteine_di_albume_in_polvere &

Proteine_di_albume_in_polvere

Types:

node129

node511 http://www.ontologydesignpatterns.org/cp/owl/bag.owl#Bag nutritionOntology:Lactose-free_protein owl:Namedindividual

RDF rank:

0

Q Search instance properties

nutritionOntology:activationTime

30

nutritionOntology:calories

112

nutritionOntology:carboQuantity

_

nutritionOntology:cost

14.99

nutritionOntology:dailyAssumption

3

nutritionOntology:dietType

Vegetariano

nutritionOntology:dose

30

nutritionOntology:fatQuantity

0

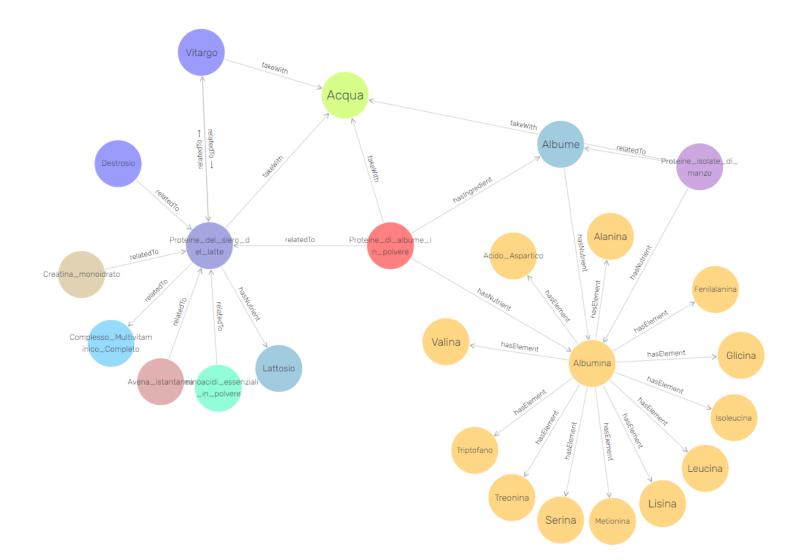
nutritionOntology:proteinQuantity

25

nutritionOntology:weight

500

| | subject \$ | predicate \$ | object \$ |
|----|---|-----------------------------------|--|
| 1 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:activationTime | "30" xsd.integer |
| 2 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:calories | "112" - xsd:integer |
| 3 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:carboQuantity | *2*-^xsd:integer |
| 4 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:cost | *14.99***xsd:decimal |
| 5 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:dailyAssumption | "3" xsdinteger |
| 6 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:dietType | "Vegetariano" |
| 7 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:dose | *30* ^{-*} xsdinteger |
| 8 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:fatQuantity | "0" ^xsd:integer |
| 9 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:hasIngredient | nutritionOntology:Albume |
| 10 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:hasNutrient | nutritionOntology:Albumina |
| 11 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:proteinQuantity | "25" "xsdinteger |
| 12 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:relatedTo | nutritionOntology:Proteine_del_siero_del_latte |
| 13 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:takeWith | nutritionOntology:Acqua |
| 14 | nutritionOntology:Proteine_di_albume_in_polvere | nutritionOntology:weight | "500" "xsd:integer |
| 15 | nutritionOntology:Proteine_di_albume_in_polvere | rdf:type | http://www.ontologydesignpatterns.org/cp/owl/bag.owl#Bag |
| 16 | nutritionOntology:Proteine_di_albume_in_polvere | rdf:type | http://www.ontologydesignpatterns.org/cp/owl/collectionentity.owl#Collection |
| 17 | nutritionOntology:Proteine_di_albume_in_polvere | rdf:type | nutritionOntology:Integrator |
| 18 | nutritionOntology:Proteine_di_albume_in_polvere | rdf:type | nutritionOntology:Lactose-free_protein |
| 19 | nutritionOntology:Proteine_di_albume_in_polvere | rdf:type | nutritionOntology:Protein_supplement |
| 20 | nutritionOntology:Proteine_di_albume_in_polvere | rdf:type | owl:NamedIndividual |



Burro_di_Mandorle &

♦ Burro_di_Mandorle

Types:

bag:Bag

nutritionOntology:SolidConsistency owl:NamedIndividual

RDF rank:

Q Search instance properties

nutritionOntology:consistence Solid

nutritionOntology:cost

12.99

nutritionOntology:dietType

Vegano

nutritionOntology:fatQuantity

nutritionOntology:nutrientQuantity

25 Show 1 more ^

• 55

nutritionOntology:proteinQuantity

nutritionOntology:weight

500

| | subject | predicate | object \$ |
|----|-------------------------------------|------------------------------------|---|
| 1 | nutritionOntology:Burro_di_Mandorle | bag:hasitem | nutritionOntology:Acidi_grassi_Monoinsaturi |
| 2 | nutritionOntology:Burro_di_Mandorle | bag:hasitem | nutritionOntology:Acidi_grassi_Saturi |
| 3 | nutritionOntology:Burro_di_Mandorle | bag:hasitem | nutritionOntology:Mandorle |
| 4 | nutritionOntology:Burro_di_Mandorle | collectionentity:hasMember | nutritionOntology:Acidi_grassi_Monoinsaturi |
| 5 | nutritionOntology:Burro_di_Mandorle | collectionentity:hasMember | nutritionOntology:Acidi_grassi_Saturi |
| 6 | nutritionOntology:Burro_di_Mandorle | collectionentity:hasMember | nutritionOntology:Mandorle |
| 7 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:consistence | "Solid" |
| 8 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:containsNutrient | nutritionOntology:Acidi_grassi_Monoinsaturi |
| 9 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:containsNutrient | nutritionOntology:Acidi_grassi_Polinsaturi |
| 10 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:containsNutrient | nutritionOntology:Fibre |
| 11 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:containsNutrient | nutritionOntology:Vitamina_B1 |
| 12 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:containsNutrient | nutritionOntology:Vitamina_B7 |
| 13 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:cost | *12.99* xsddecimal |
| 14 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:dietType | "Vegano" |
| 15 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:fatQuantity | "56" "xxdinleger |
| 16 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:hasCost | nutritionOntology:FasciaDiPrezzoMedia |
| 17 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:hasIngredient | nutritionOntology:Mandorle |
| 18 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:hasNutrient | nutritionOntology:Acidi_grassi_Monoinsaturi |
| 19 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:hasNutrient | nutritionOntology:Acidi_grassi_Saturi |
| 20 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:nutrientQuantity | "25" "xsd:integer |
| 21 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:nutrientQuantity | "55" xsdinteger |
| 22 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:proteinQuantity | "25" "xsdtinteger |
| 23 | nutritionOntology:Burro_di_Mandorle | nutritionOntology:weight | "500" ^xsd:integer |
| 24 | nutritionOntology:Burro_di_Mandorle | rdf:type | bag:Bag |
| 25 | nutritionOntology:Burro_di_Mandorle | rdf:type | collectionentity:Collection |
| 26 | nutritionOntology:Burro_di_Mandorle | rdf:type | nutritionOntology:Food |
| 27 | nutritionOntology:Burro_di_Mandorle | rdf:type | nutritionOntology:SolidConsistency |
| 28 | nutritionOntology:Burro_di_Mandorle | rdf:type | owl:NamedIndividual |

