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математика и информатика

Катедра „Компютърна информатика“

Дисциплина: СОЗ (3ти курс ИС, зимен семестър 2020/2021)

ЗАДАНИЕ ЗА ДОМАШНА РАБОТА №2

Предметна онтология

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Around the world

Main article: list of ice cream varieties by country

Around the world, different cultures have developed unique versions of ice cream, suiting the product to local tastes and preferences.

The most traditional Argentine *helado* (ice cream) is very similar to Italian gelato, in large part due to the historical influence of Italian immigrants on Argentinian customs.

Per capita, Australians and New Zealanders are among the leading ice cream consumers in the world, eating 18 litres and 20 litres each per year respectively, behind the United States where people eat 23 litres each per year.

In China, besides the popular flavours such as vanilla, chocolate, coffee, mango and strawberry, many Chinese ice-cream manufacturers have also introduced other traditional Chinese flavours such as black sesame and red bean.

In 1651, Italian Francesco dei Coltelli opened an ice cream café in Paris, and the product became so popular that during the next 50 years another 250 cafés opened in Paris.

In Greece, ice cream in its modern form, or *pagotó* (Greek: παγωτό), was introduced in the beginning of the 20th century.

India is one of the largest producers of ice cream in the world, but most of its ice cream is consumed domestically.

In Indonesia, a type of traditional ice cream called *es puter* or "stirred ice cream" is made from coconut milk, pandanus leaves, sugar—and flavors that include avocado, jackfruit, durian, palm sugar, chocolate, red bean, and mung bean.

In Iran, *fālūde* (Persian: فالوده) or *pālūde* (Persian: پالوده) is a Persian sorbet made of thin vermicelli noodles, frozen with sugar syrup and rose water. The dessert is often served with lime juice and sometimes ground pistachios.

Italian ice cream, or *gelato* as it is known, is a traditional and popular dessert in Italy. Much of the production is still hand-made and flavoured by each individual shop in "produzione propria" gelaterias. Gelato is made from whole milk, sugar, sometimes eggs,

and natural flavourings. Gelato typically contains 7–8% fat, less than ice cream's minimum of 10%.

Sorbetes is a Philippine version of common ice cream usually peddled from carts by peddlers who roam streets in the Philippines. Despite the similarities between the name *sorbetes* and *sorbet*, sorbetes is not a type of sorbet.

In Spain, ice cream is often in the style of Italian gelato. Spanish gelato can be found in many cafés or speciality ice cream stores. While many traditional flavours are sold, cafés may also sell flavours like nata, crema catalana, or tiramisu.

Dondurma is the name given to ice cream in Turkey. Dondurma typically includes milk, sugar, salep, and mastic.

In the United Kingdom, 14 million adults buy ice cream as a treat, in a market worth £1.3 billion (according to a report produced in September 2009).

In the United States, ice cream made with just cream, sugar, and a flavouring (usually fruit) is sometimes referred to as "Philadelphia style" ice cream. Ice cream that uses eggs to make a custard is sometimes called "French ice cream". American federal labelling standards require ice cream to contain a minimum of 10% milk fat. Americans consume about 23 litres of ice cream per person per year—the most in the world.

1. Domain – Сладолед

(DomainThing, ValuePartition – disjoint)

DomainThing – Считаме, че всеки сладолед има две качества. Едното е какво се използва като съставки за неговото създаване, а другото какви видове топинг има.

ValuePartition – Sweetness(по-абстрактни качества се съдържат във ValuePartititon)

- Sweetness – дефиниран клас върху примитивни класове (Subclasses - High, Low, Medium, None);

Всички останали качества са в DomainThing.

Целта на онтологията е да можем да класифицираме даден сладолед.

- Country (ограничаваме го само с дискутираните държави; дефиниран клас върху индивиди(инстанции));

- Food:

IceCream, IceCreamBase, IceCreamTopping - disjoint

IceCreamBase – от какво е направен сладоледа (Subclasses - Cream, Egg, Noodle, Salep, Sugar, Water, WholeMilk - disjoint)

IceCreamTopping– какъв топинг е добавен

Subclasses:

BeanTopping(Subclasses - Coffee, Mastic, MungBean, RedBean)

FruitTopping(Subclasses - Apple, Avocado, Banana, Durian, Jackfruit, Lemon, Mango, Strawberry)

HerbsSpiceTopping(Subclasses - BlackSesame, PandarusLeaves, Vanilla)

LiquidTopping(Subclasses - Chocolate, CoconutMilk, PalmSugar, SugarSyrup)

NutTopping(Subclasses - Pastichios)

2. Object properties(Релации):

hasCountryOfOrigin(Domain – Food; Range – Country)

hasSweetness(Domain – Toppings; Range – Sweetness)

hasIngredient - inverse functional

hasTopping(Range – IceCreamTopping),

hasBase(Range – IceCreamTopping) – Transitive(Ако имаме сладолед, който съдържа съставка, която съдържа друга съставка, то следва, че сладоледът също я съдържа) (Domain – Food; Range – Food)

2.1. Обратни свойства:

IsIngredientOf(Inverse of hasIngredientOf) – Transitive

Subclasses:

isToppingOf(inverse of hasToppingOf)

isBaseOf(inverse of hasBaseOf)

(Описвам всеки от Topping-ите със свойството hasSweetness)

3. Следва създаване на мета класове, които описват топингите. (Логически извод чрез създаване на дефинирани класове (Reasoner-а прави изводи))

- NaturalToppings (Equivalent to - IceCreamTopping and (not (LiquidTopping)))
- HardToppings (Equivalent to - IceCreamTopping and (BeanTopping or HerbsSpiceTopping or NutTopping))
- NoneSweetToppings (Equivalent to - IceCreamTopping and (not (SweetToppings)))
- SweetToppings (Equivalent to - IceCreamTopping and (hasSweetness some High))

=> Всеки от топингите се класифицира с помощта на логически извод от Reasoner-а

4. IceCream (hasBase some IceCreamBase – всички подкласове наследяват релацията.)

- Argentinian - Equivalent to - IceCream and (hasBase some (Egg or Sugar or WholeMilk)) and (hasTopping some NaturalToppings) and (hasCountryOfOrigin value Argentina)
- Chinese - Equivalent to - PopularIceCream and (hasTopping some (BlackSesame or RedBean)) and (hasCountryOfOrigin value China)
- Italian - Equivalent to - IceCream and (hasBase some (Egg or Sugar or WholeMilk)) and (hasTopping some NaturalToppings) and (hasCountryOfOrigin value Italy)
- PopularIceCream - IceCream and (hasTopping some (Chocolate or Coffee or Mango or Strawberry or Vanilla))
- NamedIceCream: Gelato, Helado, Mochi(Точно определени индивиди)
- Добавяме им някои основни свойства и чрез логически извод reasoner-а си прави останалите изводи.

