



UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO

COMPUTER SCIENCE DEPARTMENT

Computer Science - Curriculum Artificial Intelligence

Project Assignment

Foundamentals of Artificial Intelligence

GraphBrain

Student:

Fontana Emanuele

Academic Year 2024/2025

Indice

1.1 Exercise 1 2

1.1.1 Brief description 2

1.1.2 Improvements to the ontology 3

1.1 Exercise 1

1.1.1 Brief description

In this exercise, I've uploaded the following to retrocomputing:

- **Metal Slug Series - Main games:** about 10 games from the Metal Slug series, which are the main games in the series.
- **Flight Simulator Series:** about 10 games
- **Street Fighter Series:** about 8 games
- **Dragon Ball Games:** about 15 games
- **Pro evolution Soccer Series:** Games of the Pro Evolution Soccer series and also its predecessors (about 35 games)
- About 5 console games
- About 5 company
- Mouse and keyboards (about 15 devices)
- List of EXPO events (about 35 events)
- For each videogame, which is a software, I've added information with the relationship *producedBy* to the company that produced it
- For each console the producer (I also add the produced for already existing consoles)
- For each Mouse and Keyboard I've added the producer
- I've added my city Matera and nearby cities (about 30)
- Update the name for existing Internet protocols (8) and add new ones (about 70)

to food:

- **Crapinata:** a dish from Matera, which is a soup made with legumes and vegetables (and also some missing ingredients)
- Relationships about the previous plate

1.1.2 Improvements to the ontology

I suggest to add the following updates to the ontology:

- **First Person Shooter:** I suggest to add the class *First Person Shooter* to the ontology as subclass of *Videogame*
- **Fighting Game:** I suggest to add the class *Fighting Game* to the ontology as subclass of *Videogame*
- **Action Game:** I suggest to add the class *Action Game* to the ontology as subclass of *Videogame*
- **Sandbox Game:** I suggest to add the class *Sandbox Game* to the ontology as subclass of *Videogame*
- For software the relationship *developedBy* involves software and Person. However, in many cases (e.g. videogames) the software is developed by an Organization. I suggest to add this update to the ontology as well.
- I would add a relationship *runOn* between the class *Software* and the class **Operating System** to indicate the operating system on which the software runs.
- I'd add also *executedOn* between the class *Videogame* and the class **Console** to indicate the console on which the videogame runs.

Interface

- I'd add HTML Date Type to insert dates
- When I want to add a new relationship, I can't start from the Object but only from the Subject.