

Concurrence et Répartition

Inspector Prolog

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Inspector prolog

- Educational games to learn formal logic
- Implemented in prolog
- Cases to investigate

Fix previous problems

- Infinite recursion to check alibi
→ fixed, the case implemented is solvable
- pretended locations of suspects
→ has to be verified, if not true the suspect is a liar
- link distinctions to clues

Distinctions

Smoker : if a cigarette butt is found somewhere a smoker was here

Left-handed : if the weapon was used with left hand the murderer is left-handed

→ too different to design a global structure.

Scenario 2

À l'auberge Inn le partron Monsieur Dick Raicteur est retrouvé assassiné dans le sous-sol.

Les suspects :

- Gordon Bleu le cuisinier (pseudo mobile : augmentation refusée)
- Pierre Sonnel et Sally Riez les serveurs
- Klint Yhan un homme d'affaires qui loue la chambre 2
- Charles Hatant le comptable et ami de Dick (mobile : falsifie les comptes)
- Fab (Fabien) Ullateur un ami (ment pour couvrir Charles)

User interactions

The user has to be able to :

- Apply logical rules to deduce facts
- Interact with suspects
- Look for clues in locations
- ...

User interactions : possibilities

- The user has to write the prolog predicate
 - The goal is to learn formal logic not prolog syntax
 - possibility to directly ask for the solution
- The user can perform actions through a menu
 - no syntax issue
 - we can control the actions according to the user's advancement

Python integration

Since we want to be able to display the information in text to the user and not just prolog predicates we choose to do this part in python.

We made research about two libraries :

- **mqi**
- **pyswip**
 - ▶ easier to begin with
 - ▶ more documentation

The library was not working even with simple tests due to versions compatibility problems.

- Using a VM with latest versions of python and swi-prolog did not help
- The solution was to downgrade swi-prolog

Our next goals

- Fact database
 - ▶ Fix problems with the fact database
 - ▶ Implement proof system
 - ▶ Scenarios writing and implementation
- Implement interaction with the user

Semester plan

	1	2	3	4	5	6	7	8	9	10	11	12	13
refresh prolog knowledge													
choose game mechanics													
design facts database													
create scenarios													
implement facts database													
implement logic													
implement game --> interface													
generative model													

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