Presentation of the project : The Phantom of the Opera

November 27, 2019

Game

- The game is inspired by Gaston Leroux's novel " Le Fantôme de l'Opéra"

- It happens in Opéra Garnier.

The story

- ▶ The opera is haunted by a mysterious phantom.
- ▶ The usual solo singer is replaced by a young singer.
- ▶ But the new young singer is abducted by the phantom.

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- ▶ The fantom wants to frighten the singer (**La Carlotta**) so that the show is canceled.
- ▶ The inspector wants to **discover the secret identity of the fantom** who can actually be one of the 8 **suspects**.

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- ▶ The steps alternate the players : phase 1 : IFFI, phase 2 : FIIF.

Rounds

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- At the end of a round, the fantom **either screams or does not** : it screams if it is alone in a room or in black room
    - if it screams : the Carlotta is frightened and moves closer to the exit of the opera
    - the fact that the fantom screams can give clues to the inspector about the **identity of the fantom**

8 characters

- Meg Giry : can use secret stairs
- Madame Giry : can lock doors
- Joseph Buquet : can turn off the light
- Raoul de Chagny: can draw an alibi card
- Le Persan : can take another character with him when he moves
- Mr Richard : can swap position with another character
- Mr Moncharmin : can make other characters flee his room
- Christine Daaé : can attract other characters in the same room as hers

Ressources that explain the game

- `https://boardgamegeek.com/boardgame/145645/`
  `le-fantome-de-lopera`
- `https://www.youtube.com/watch?v=HH27Gd9b_Xc`
- `https://www.youtube.com/watch?v=OymOa9QqrrQ`

The server

- Located here :
  https://github.com/nlehir/phantom_opera
- Former text files version :
  https://github.com/groznyniko/ia_fopera
- **Please note** that a small number of rules is not taken into account by the server : in that case, consider the server rules. For instance the characters can only move to a distance of one room.
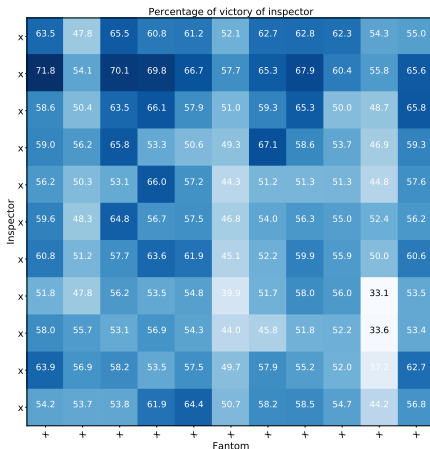
Goal of the project

- You must build **two agents** (two AIs)
  - an **inspector**
  - a **fantom**

Goal of the project

- ▶ The files **random_inspector.py** and **random_fantom.py** choose random actions.
- ▶ You must build smarter clients that play against each other.

Evaluation

- Interest of your method
- Comparison between agents :

Percentage of victory of inspector

Evaluation

- It is required that you provide a document explaining your method (pdf preferred) and why you chose this method. It does not need to be very long but clear enough so that I understand what you tried to do.

Practical information

- ▶ Your agents must have a python interface to communicate with the server.
- ▶ You can send me the project by email or with a link to a repo.
- ▶ firstnamelehir @ gmail.com or firstname.lehir @ epitech.eu

Project

- Questions ?

Project

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- Tomorrow we will discuss possible methods to build agents (but you are free to choose any method).

Project

- ▶ You can now build teams, experiment with the game and the
  server, and start working on the project.