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Introduction to AI

Phantom of the Opera

Group Session 1

Solution description:

To put it simply, our solution is to find all the possibilities during our turn, we perform a recursion if we play twice in a row.

First, we detect the type of question that is sent to us, then if that question is a "select character", then we run our algorithm and find the solution that leads to the best score. On the other hand, if the question is not a "select character", then we use the answer already found earlier.

Our algorithm is as follows: we take all the characters that can be played during that turn and iterate through all possible actions for each character during that turn. This is possible because we predict the state of the game after a potential action by a character and then select the consecutive actions to achieve the best score.

For the fantom, the best score will be based on the progress of the carlotta - the more it advances, the higher the score.
For the inspector, the less the carlotta advances, the higher the score.

External libraries used

In order to test our inspector and fantom (**test_runner.py** script) and visualize the fantom's win rate for a number of games , we used **matplotlib.pyplot**.