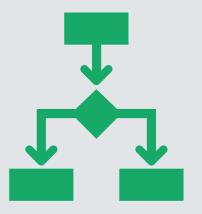
# Planning for Storytelling Demo

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Choose-Your-Own-Adventure (CYOA) stories are interactive narratives where the reader assumes a fictional persona and then chooses various paths in order to reach the ending of a story.





What you will need if you want to be completely hands-on:

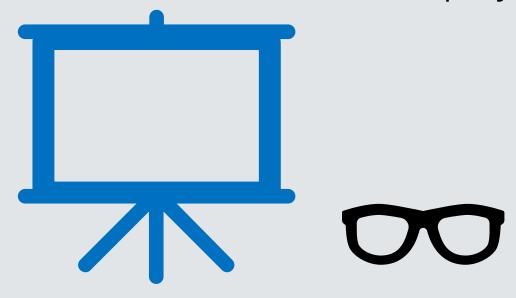
- Laptop
- Updated Browser (Firefox, Chrome, Edge)
- Wi-Fi/Ethernet connection
- Free ChatGPT account with ChatGPT 40: https://chatgpt.com/
- Free Cohere account: https://dashboard.cohere.com/welcome/register
- Email access to verify your ChatGPT or Cohere account credentials

<u>Note</u>: if you are signing up for ChatGPT or Cohere for the first time, the set-up process may take a few minutes.



If you don't have access to any of the above, or if ChatGPT or Cohere are unavailable, don't worry!

You can still watch the main screen and play along.





The hero of the tale is a brave adventurer named Jack, who is navigating the intricacies of an ancient castle.



The user (**that's you!**) takes on the persona of Jack and makes decisions about what action to take at each stage of the story

If the user chooses a `good' path, Jack escapes from the castle. If the user makes the `wrong' choices, Jack could meet with an untimely demise.

Note that the 'good' and 'wrong' choices are based only on the perspective of the main character.

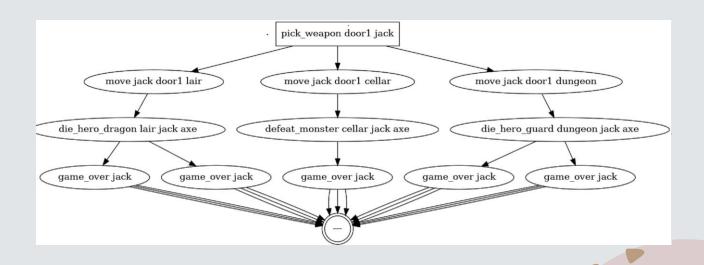
The valid plan that the automated planner generates is simply concerned with reaching the goal state from the starting state, within the confines of the given environment, and therefore it makes no distinction as to whether the 'game over' state is reached in a 'positive' or 'negative' way for the main character.

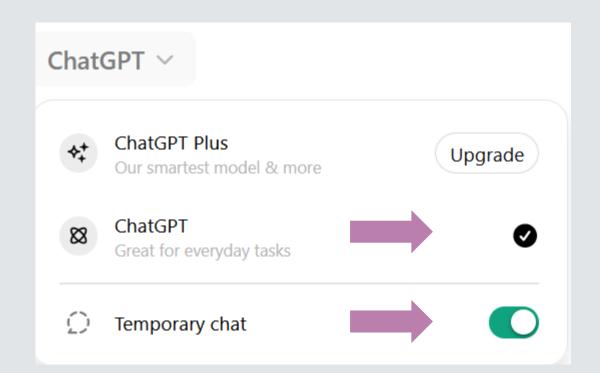
Therefore, the automated planner and the LLM do not care what happens to Jack.

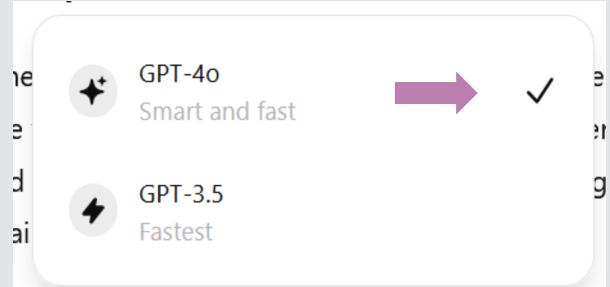
You are Jack's only hope!

The plan is generated by the automated planner from hand-crafted PDDL domain and problem files. Planner outputs are extracted in the form of a text file and a directed graph.

move jack door1 lair pick\_weapon door1 jack die\_hero\_dragon lair jack axe defeat\_monster cellar jack axe die\_hero\_guard dungeon jack axe game\_over jack









ChatGPT ~

① Temporary Chat ①

You are a creative interactive game designer. Generate Game Play user text for each of the following action sentences:

move jack door1 lair pick\_weapon door1 jack die\_hero\_dragon lair jack axe defeat\_monster cellar jack axe die\_hero\_guard dungeon jack axe game\_over jack



Sure, here is the gameplay user text for each action sentence:

#### 1. move jack door1 lair

"Jack cautiously approached Door1, the ominous gateway to the Lair.
 With a deep breath, he stepped inside, the air growing colder and the shadows longer as he entered the foreboding domain."

#### 2. pick\_weapon door1 jack

 "As Jack entered the room just past Door1, his eyes caught the glint of steel. There, lying on an ancient pedestal, was a mighty axe. Jack picked up the weapon, feeling its weight and power course through him."



#### 3. die\_hero\_dragon lair jack axe

 "In the heart of the Lair, Jack faced the fearsome dragon. Despite his brave efforts and the powerful swings of his axe, the dragon's fiery breath overwhelmed him. Jack fell to the ground, his heroic journey ending in a blaze of glory."

#### 4. defeat\_monster cellar jack axe

 "Deep within the dark and musty Cellar, a monstrous creature lurked. Jack gripped his axe tightly and, with a series of swift and decisive blows, defeated the beast. The cellar fell silent as Jack emerged victorious."



#### 5. die\_hero\_guard dungeon jack axe

 "Within the Dungeon's grim corridors, Jack confronted a heavily armored guard. The battle was fierce, and though Jack fought valiantly with his axe, the guard's relentless strikes proved too much. Jack succumbed to his injuries, his heroic tale ending in the depths of the dungeon."

#### 6. game\_over jack

"The screen fades to black as Jack's journey reaches its tragic conclusion.
 The words 'Game Over' appear, a somber reminder of the perils faced and the bravery shown. But every end is a new beginning. Will you try again?"



#### Points to Note:

- A logical story within the given environment and restrictions will not be generated by the LLM if the LLM is not given a valid plan.
- The output of the LLM can be considered to be an `average', as the text will change each time the LLM is queried. However, the main ideas of the story will be consistent.
- Different LLMs will produce results with varying accuracy, since the inputs on which the LLM has been trained will affect the generated outputs.
- Prompt engineering is a key part of generating text with LLMs.

### Game Over.

Thank you for playing!

