COLLEGE OF ENGINEERING

Electrical Engineering and Computer Science

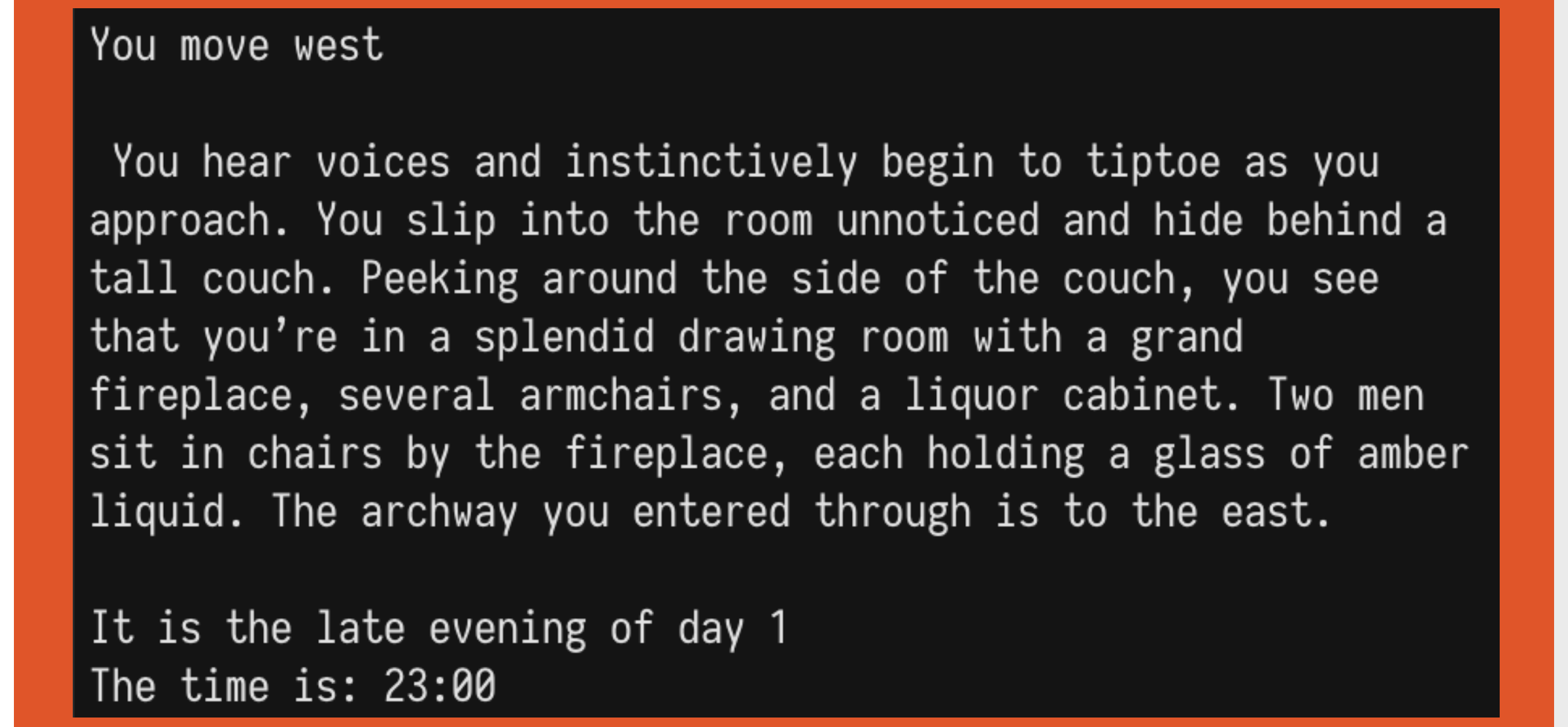
CS467 CAPSTONE: INTERACTIVE FICTION GAME

Our team crafted a gloomy mystery world and the tools to explore it.

https://github.com/NicoleOlsonCIS/Capstone_AdventureGame.git

TECHNOLOGIES USED

- **Python**
  - Version 3.6.8 (available on OSU's flip server)
  - We decided to develop in Python to gain experience with a popular language and take advantage of its robust ecosystem of libraries and modules.
- **Pickle**
  - Is a Python module that can be used to serialize and deserialize objects by converting them into a character stream.
  - We used this to serialize game states, enabling the user to save and load game progress.
- **Pytest**
  - Is a small, yet scalable, framework to test Python programs.
  - We used this to repeatedly test the parser for different user inputs and verbs.
- **Git**
  - Is the ubiquitous distributed version-control system.
  - Our team used git with GitHub to host and control our project during development.



```
You move west

 You hear voices and instinctively begin to tiptoe as you
approach. You slip into the room unnoticed and hide behind a
tall couch. Peeking around the side of the couch, you see
that you're in a splendid drawing room with a grand
fireplace, several armchairs, and a liquor cabinet. Two men
sit in chairs by the fireplace, each holding a glass of amber
liquid. The archway you entered through is to the east.

It is the late evening of day 1
The time is: 23:00
```

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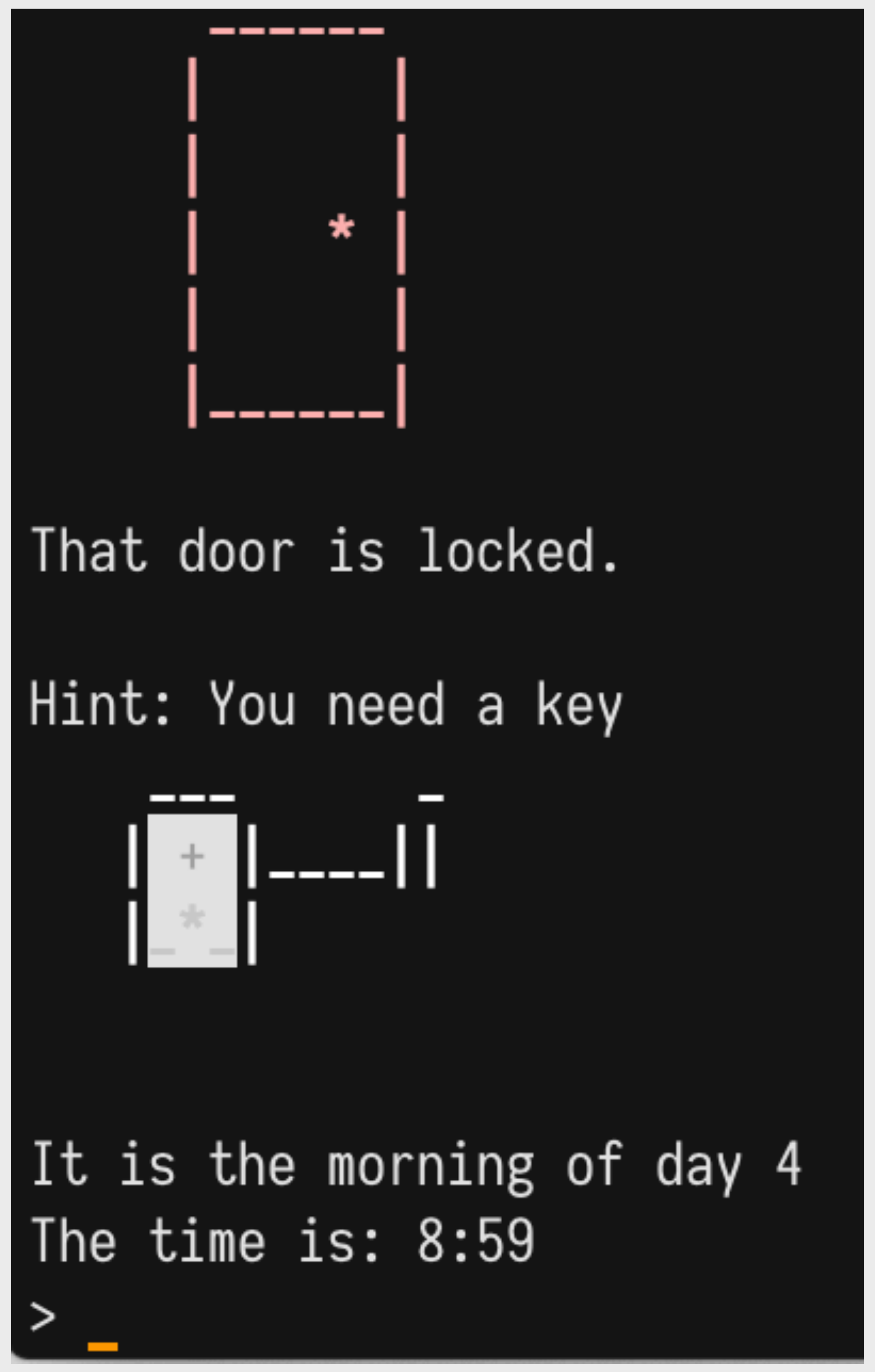
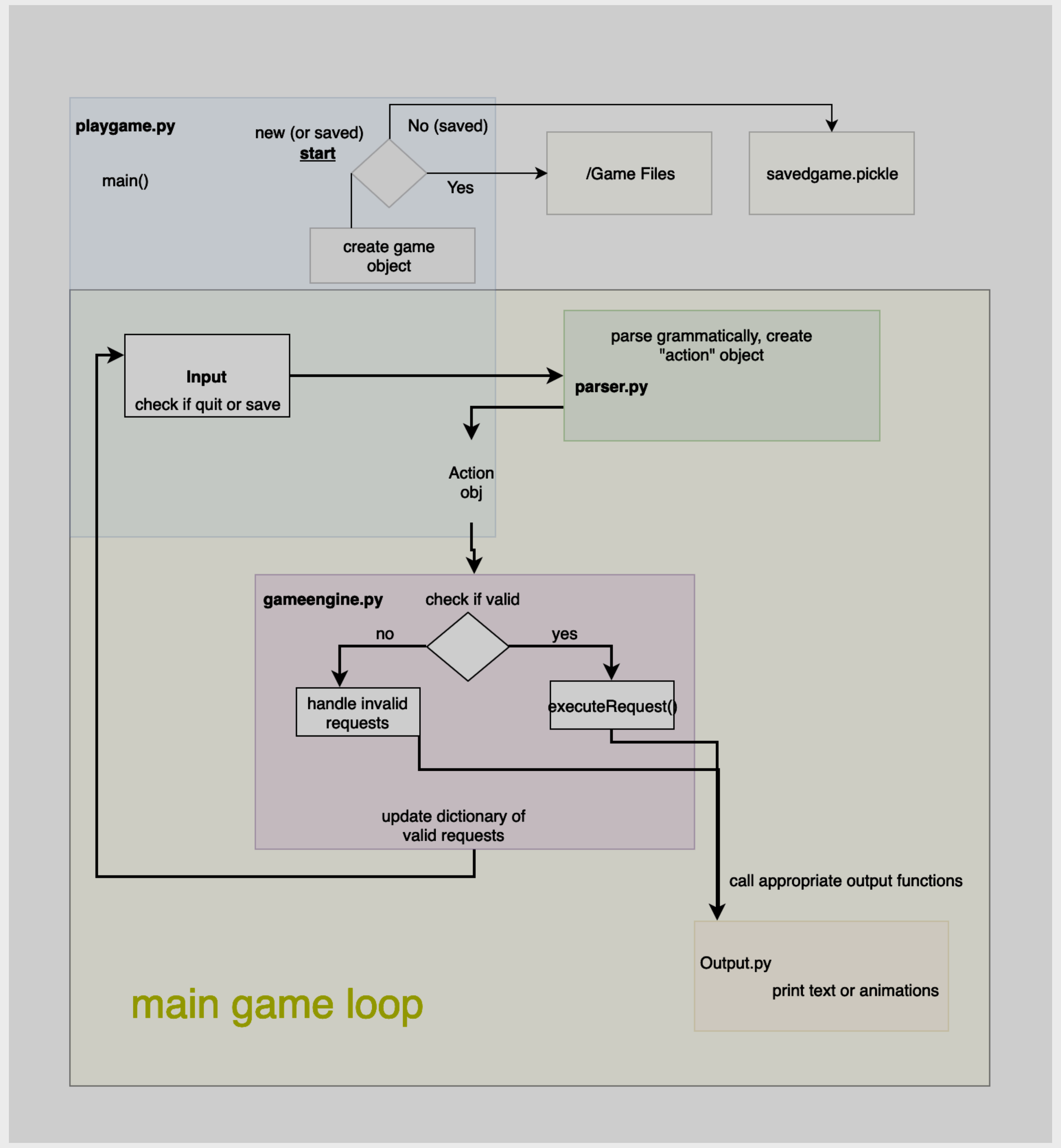


```
 -------
|       |
|       |
|   *   |
|       |
|_______|

That door is locked.

Hint: You need a key

It is the morning of day 4
The time is: 8:59
> _
```



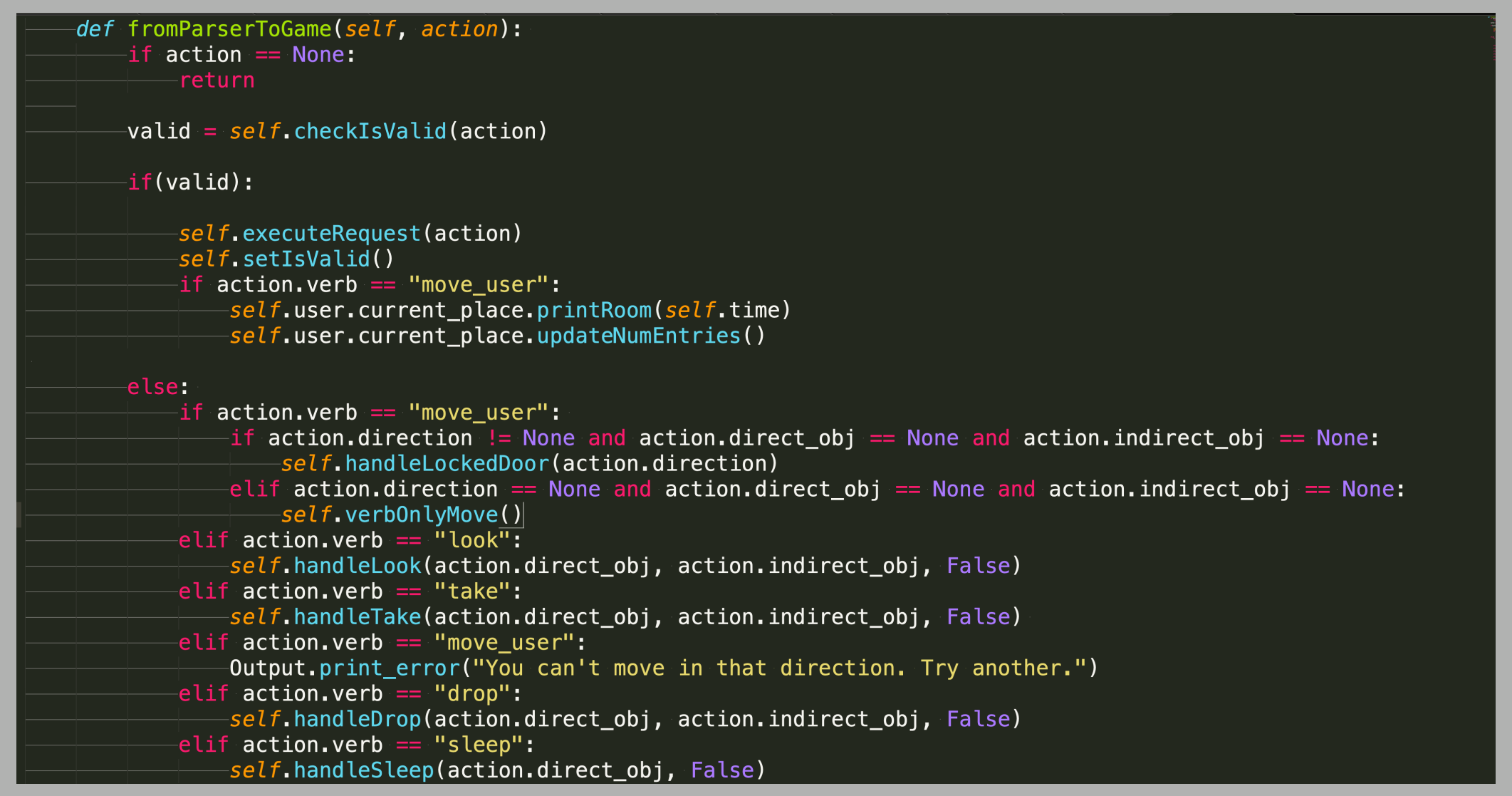
DESCRIPTION

In our untitled interactive fiction game, you are a child separated from your mother and evacuated to the country-side in wartime Britain. Your new home is an old country manor that stands on expansive grounds, which are strangely unsafe to wander at night. The manor also houses a secret wartime project that would deliver Britain from her enemies, but risks unraveling our reality as we know it.

The user controls the protagonist and interacts with the game world and the people who live inside it by typing commands into the terminal, much like 1980's classic interactive fiction game, *Zork*.

FEATURES

- A rich, original game-world written specifically for this project.
- A game engine that manages a complex game-state that allows dynamic NPCs, objects, and features that move in space and react to user actions.
- A save and load system that allows users to save their game progress and return to where they left off.
- A parser that understands hundreds of combinations of verbs, directions, and objects.



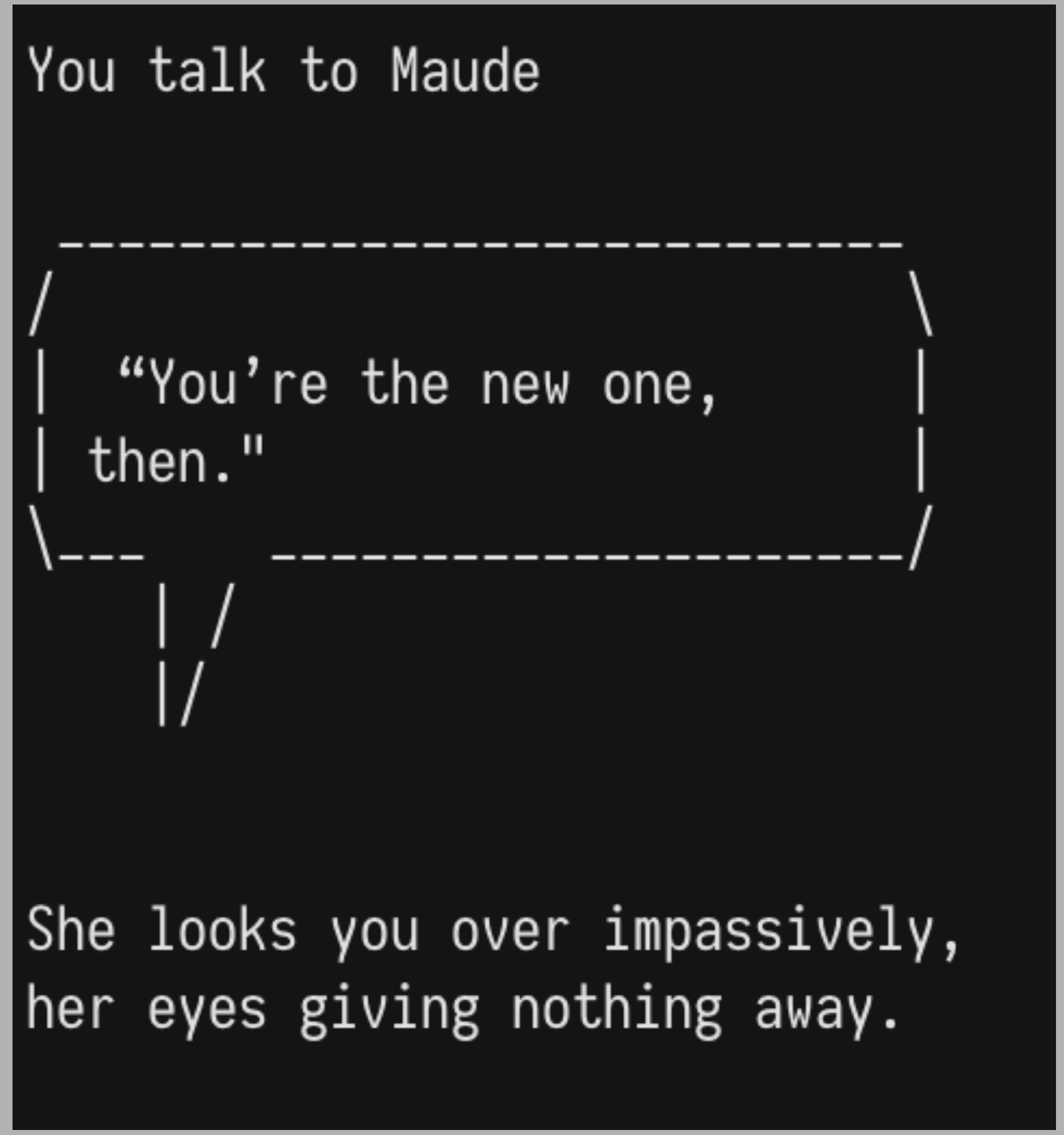
```python
    def fromParserToGame(self, action):
        if action == None:
            return

        valid = self.checkIsValid(action)

        if(valid):

            self.executeRequest(action)
            self.setIsValid()
            if action.verb == "move_user":
                self.user.current_place.printRoom(self.time)
                self.user.current_place.updateNumEntries()

        else:
            if action.verb == "move_user":
                if action.direction != None and action.direct_obj == None and action.indirect_obj == None:
                    self.handleLockedDoor(action.direction)
                elif action.direction == None and action.direct_obj == None and action.indirect_obj == None:
                    self.verbOnlyMove()
            elif action.verb == "look":
                self.handleLook(action.direct_obj, action.indirect_obj, False)
            elif action.verb == "take":
                self.handleTake(action.direct_obj, action.indirect_obj, False)
            elif action.verb == "move_user":
                Output.print_error("You can't move in that direction. Try another.")
            elif action.verb == "drop":
                self.handleDrop(action.direct_obj, action.indirect_obj, False)
            elif action.verb == "sleep":
                self.handleSleep(action.direct_obj, False)
```

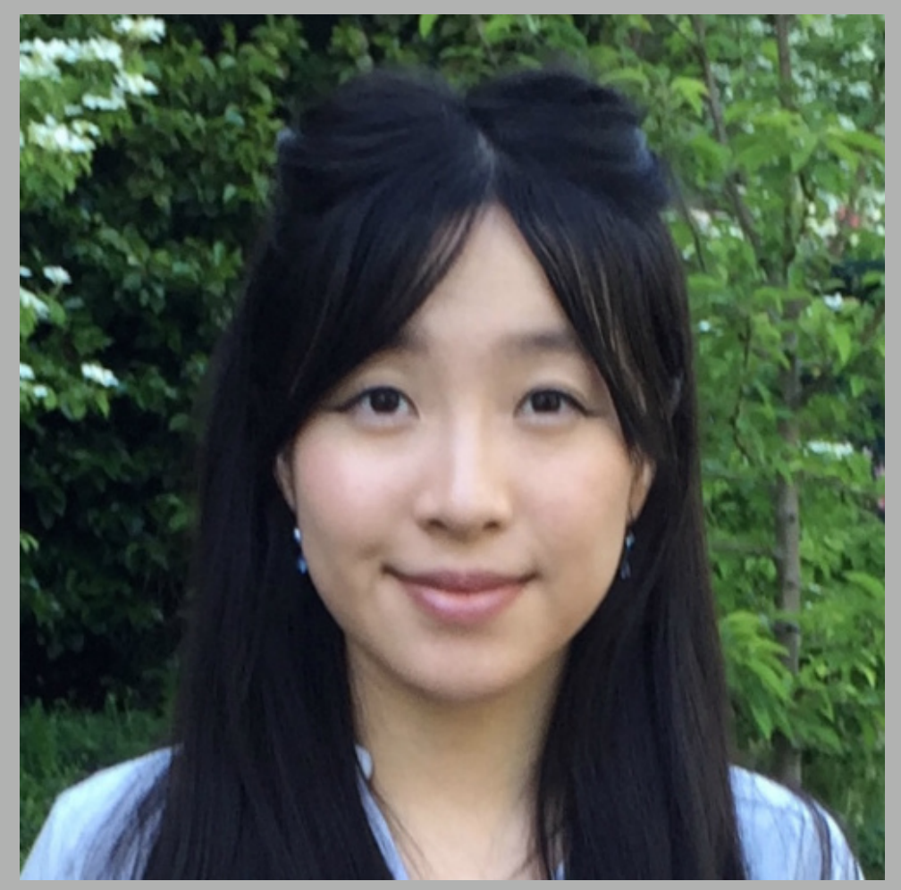


```
You talk to Maude

  --------------------------
/                            \
|  "You're the new one,      |
|  then."                    |
\___  _______________________/
    | /
    |/

She looks you over impassively,
her eyes giving nothing away.
```

TEAM MEMBERS



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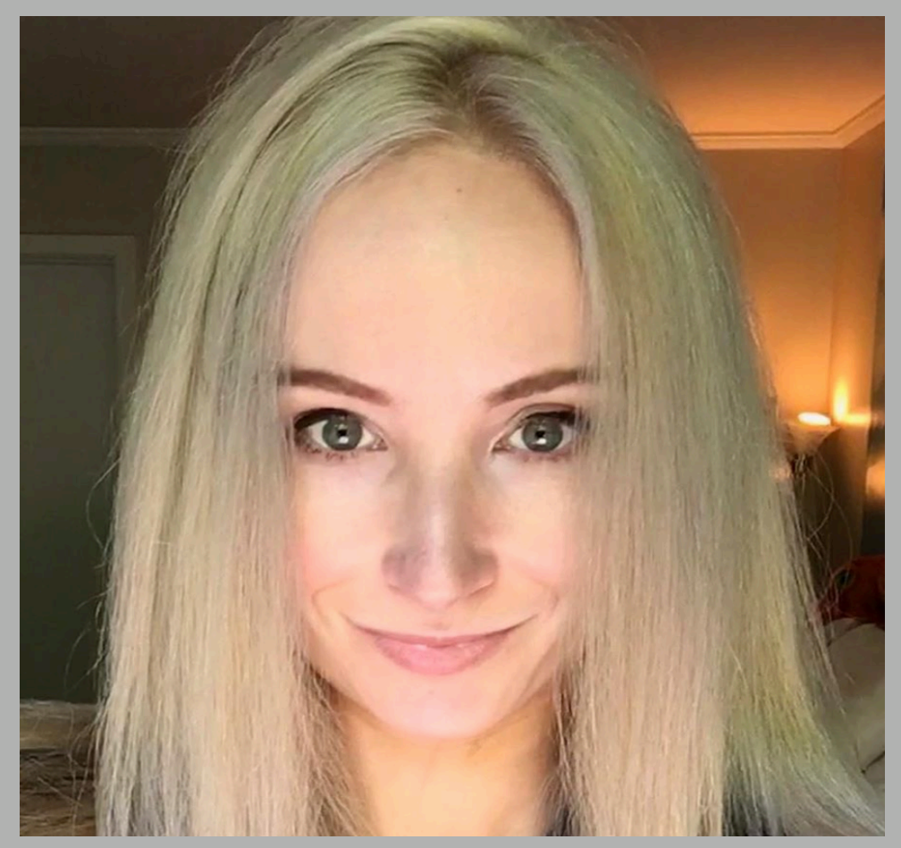

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