

# DETECTIVE Prolog

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# Overview

## Detective Prolog

murder mystery game based on using logic-based deduction programming.

### Idea:

Who the murderer is based on a list of facts and rules.



# PROJECT DESCRIPTION

- Prolog uses the provided clues to infer which suspect is the murderer.
- The Player is assumed to be a detective
  - Tries to solve the puzzle by entering the correct answers.



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- Which is used for negation in Prolog.
- It allows for non-monotonic reasoning.
- Prolog can reason with incomplete or uncertain information.



# Level.1

## Clue 1:

"Body found in the house on Saturday morning; crime occurred 12 hours prior, says doctor."

## Facts:

```
27 day(friday).  
28 day(saturday).  
29 day(sunday).
```

## Rule:

```
58 date(X) :- day(X), \+ X = saturday, \+ X = sunday.
```



# Level.1

## Clue 2:

"Victim's wife called the police."

## Rule:

```
61 murdered(M) :- victim(M), man(M).
```



# Level.1

## Clue 3:

"Neighbors heard that victim was arguing with a man last night."

## Rule:

```
66 has_argue(X, Y, Z) :- murdered(X), suspect(Y), man(Y), X \= Y, date(Z).
```





# Interact with players

Clue:

"Police found victim's body on Saturday morning and doctor declare the crime happened about 12 hours ago.

Date of crime?

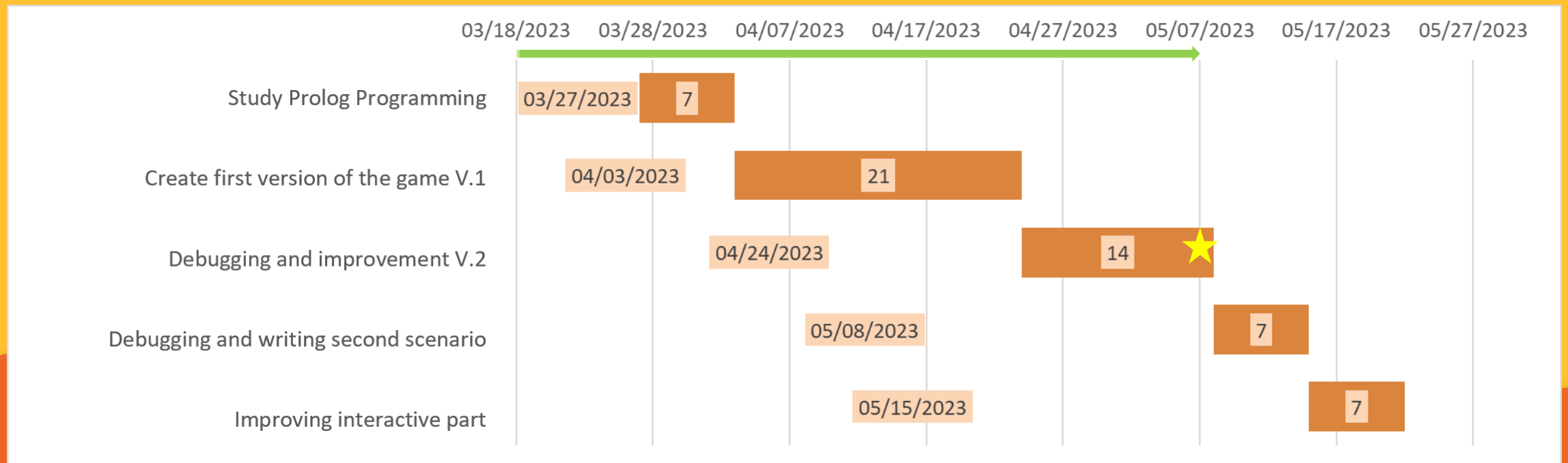
Sunday

- ❑ **Players receive a point for each correct answer.**

# What do we expect?

- ❑ Create a game in which there is only one murderer for each crime.
  - Different scenarios for each level of difficulty.
- ❑ Interact with players and assign scores based on their responses.
  - Make new guesses based on the scores.

# Project Timeline



# THANKS

Does anyone have any questions?

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