

PlayGo!



Group #31
Carlos Lawrence
Parth Mishra
David Brunelle

Overview



- ❧ Demo w/ use cases
- ❧ Rules w/ difficulties and implementations
- ❧ Design patterns

Start Game

Grid Size

9 x 9

11 x 11

19 x 19

Game Mode

2 Player

vs. AI

Name

Player 1

Player 2

START

Video Link



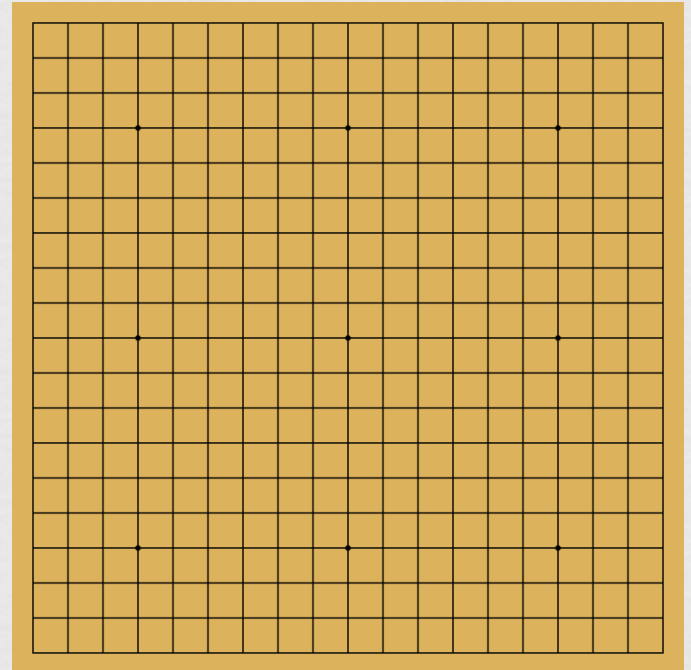
<https://youtu.be/-QsdOXUrP8M>

Basics of Go



Basic rules:

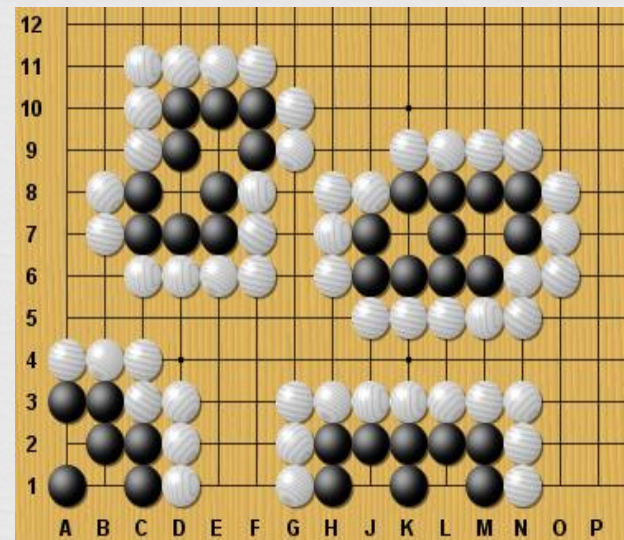
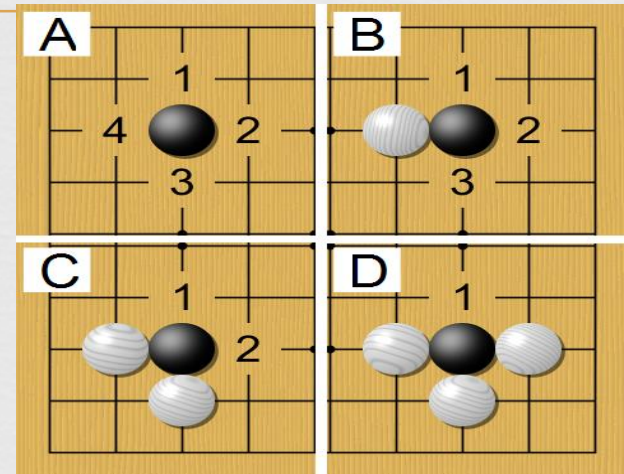
- 2 Players – black and white stones
- Can place a piece anywhere on the board
- Black goes first
- Played on 9x9, 11x11, 19x19



Captures



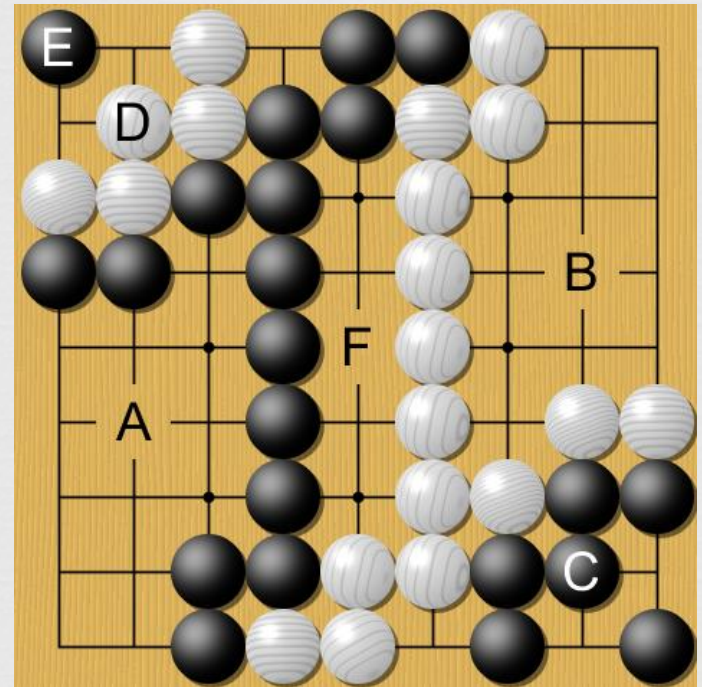
- ☞ Pieces have liberties
- ☞ Surround all liberties to capture
- ☞ Two eyes cannot be captured
- ☞ Adjacent stones mix liberties
- ☞ Captures precede liberties



Territories and Scoring



- Count empty points stones surround
- Points enclosed by both players is awarded to neither
- Count the territories and captures



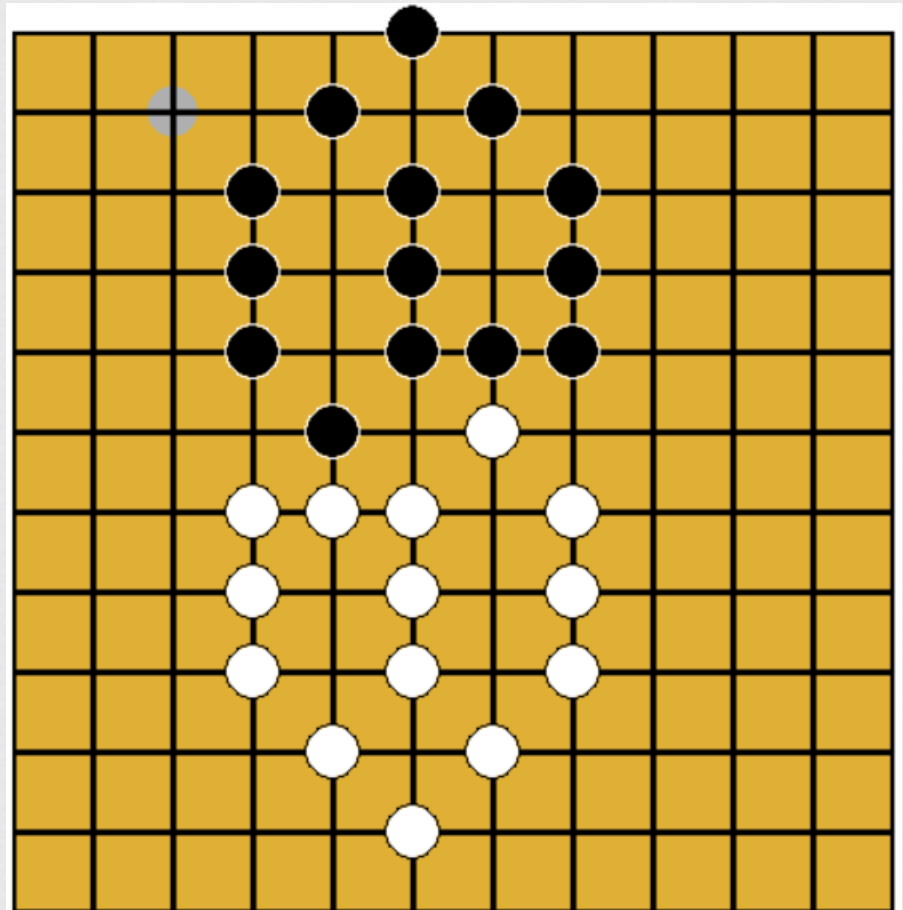
Singleton



Grid

Python
implementation of
singleton

Why we needed to
use singleton



Façade



Labels general interface

START

PASS

RESIGN

9 x 9

11 x 11

19 x 19

Buttons and Labels only insatiate needed aspects of label

Player 1

Start Game

Grid Size

#Adding options buttons

```
gridSize9Button = draw.Label(c.STARTSCREENFONT, 25, False, " 9 x 9 ", c.BLACK, 0.5,0.29, -150)  
gridSize9Button.drawRect(DISPLAY,c.WHITE,20,5)
```

Images



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