

# **Java Programming Team Project**

## **Yut Nori Game (윷놀이)**

Team No.5

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- What is Yut Nori?
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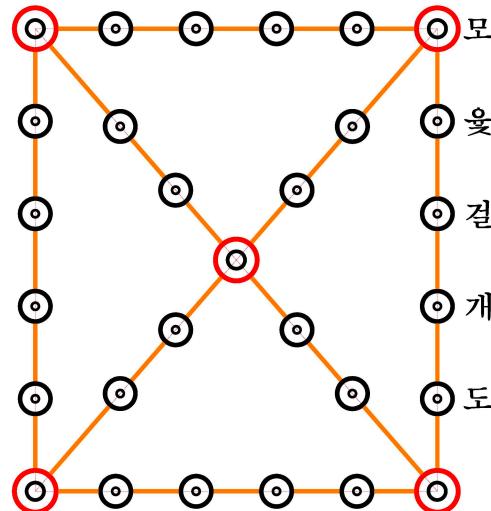
- Main Class
- User Class
- Yut Class
- Board Class
- Tokens Class
- SaveFile Class

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# 1. Introduction of Yut Nori

## ■ What is Yut Nori?

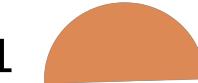
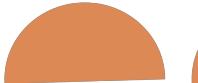
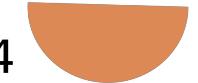
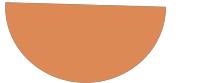
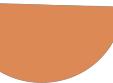
- A traditional board game played in Korea
- Equipment
  - The board (말판)
  - Four Yut sticks(윷 4개)
  - Four small tokens(말 4개)



# 1. Introduction of Yut Nori

## ■ Rules Of Yut Nori

- Four Yut sticks(윷 4개)

1					도 do
2					개 ge
3					걸 geol
4					윷 yut 
5					모 mo 

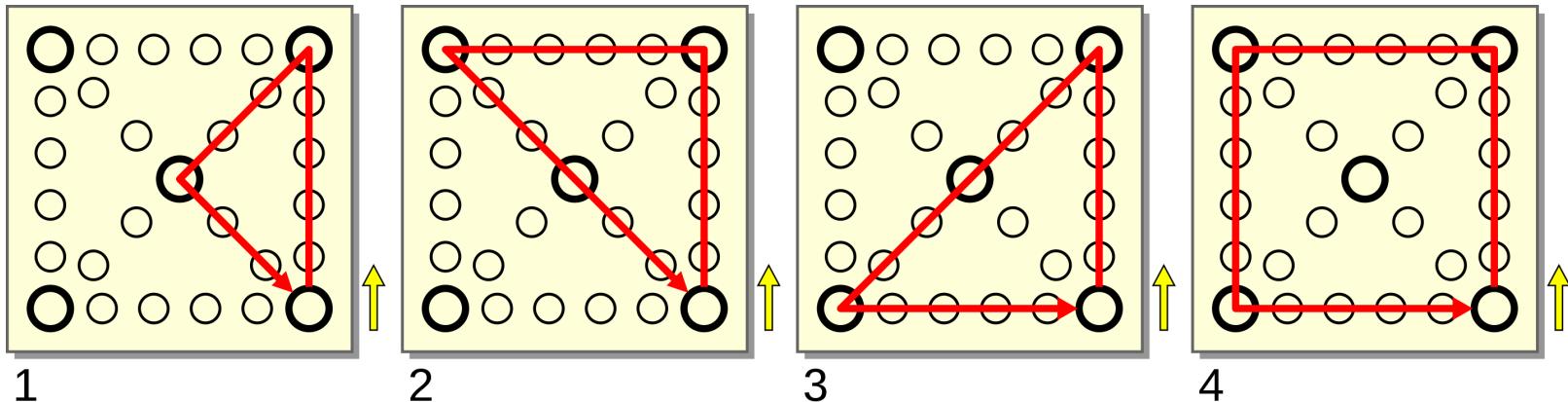


Earns extra cast

# 1. Introduction of Yut Nori

## ■ Rules Of Yut Nori

### ■ The board (말판)



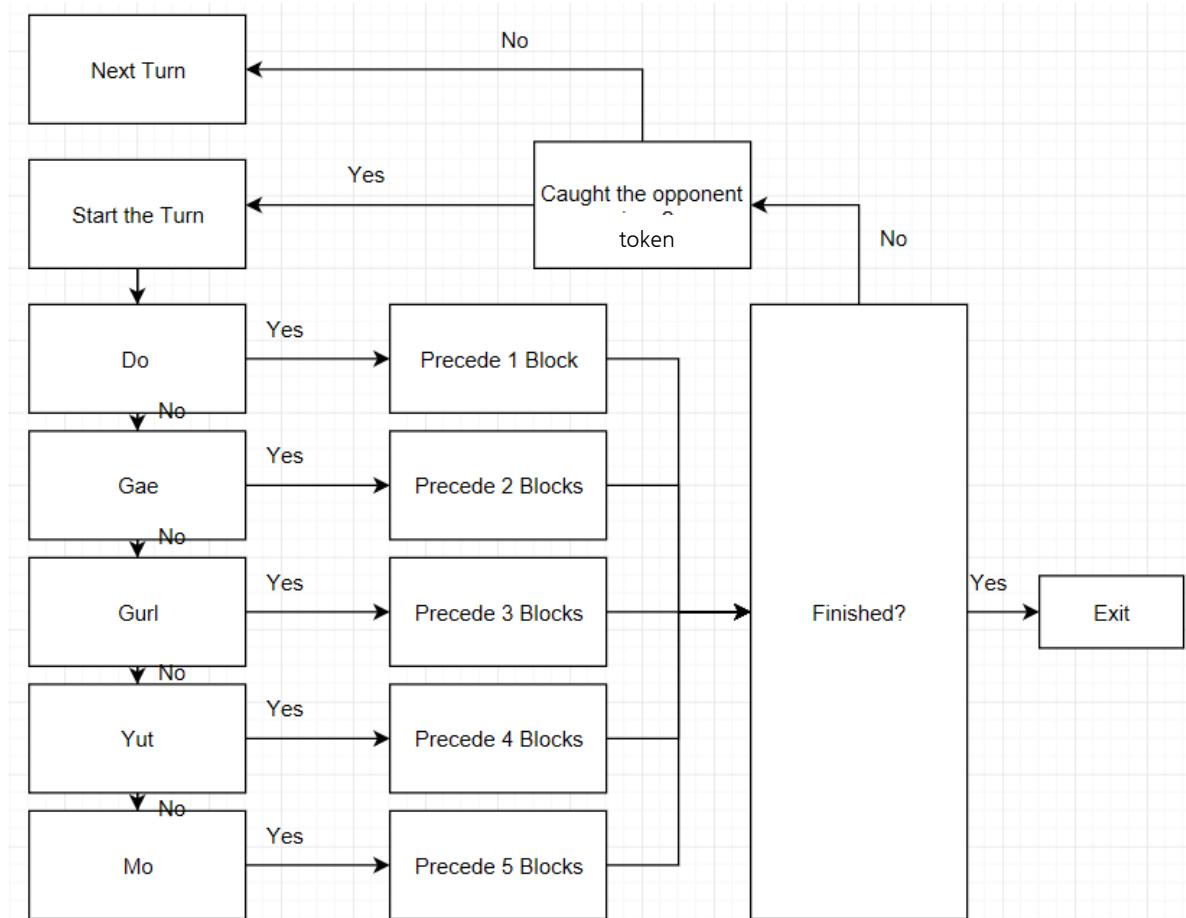
### ■ Four small tokens(말 4개) moving rule

- 잡기 : If a token lands on a station occupied by the opponent's team, the opponent's token is removed from the course and returned to the starting position, and the current player is allowed to cast again.
- 업기 : If a token lands on a station occupied by the own team, these tokens can form a group and travel together from that point on.

# 1. Introduction of Yut Nori

## ■ Rules Of Yut Nori

- Flow Chart



## 2. Roles of Classes

- Main Class
  - Declares Objects of User, Yut,Board, Tokens, SaveFile Class
- User Class
  - Has User Information(Name, Student Number..)
  - Can load file input.
- Yut Class
  - Has Cast Method
- Board Class
  - Implements the board graphic
- Tokens Class
  - Has a location of tokens
  - Moves the tokens
  - Check if a token completes the course
- SaveFile Class
  - Save all game histories, scores, user informations.

### 3. Algorithm Implementation

- Load users' information from text file (User Class)
  - Name, Student Number, Scores
- Repeat the following Until any team's tokens all finished the course.
  - Cast team1 (Cast Class)
    - If team1 casts mo or yut, then earns extra cast.
  - Move team1 (Token Class, Board Class)
    - Ask if team1 want to '잡기' team2 when they can '잡기'
      - If team1 did '잡기', returns to step 'Cast team1'
    - Ask if team1 want to '업기' when they can '업기'
  - Cast team2 (same)
  - Move team2 (same)
- Ask if teams want to save this game to text file and save game history (Save Class)

### 3. Algorithm Implementation

- Tokens moving algorithm
  - Make 5\*7 array for the board.
  - Set starting point to first array block.
  - Move tokens according to the rules if they lands the corner.