ITP20003 Java Programming

Lab 7. Explore States

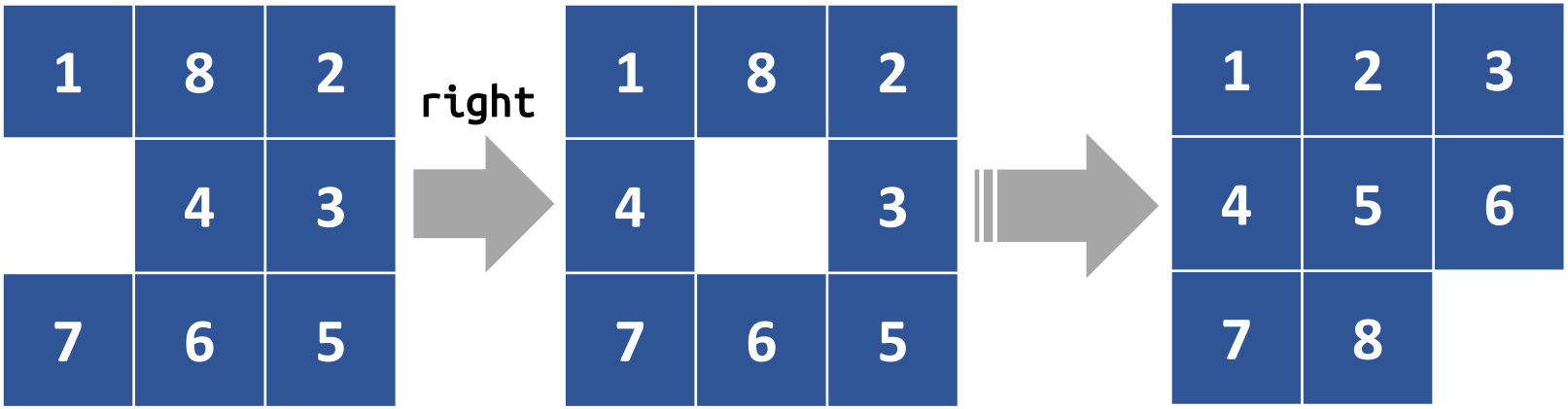
Lab 7

- Missions 12 & 13

Team1	Wongani	김예군
Team2	김소은	심충일
Team3	김시온	황보효정
Team4	김아론	전혜원
Team5	김재윤	유채우
Team6	김지민	이한빈
Team7	박수현	박혜빈
Team8	백주열	이지행
Team9	양예진	이혁재
Team10	윤석규	이종원

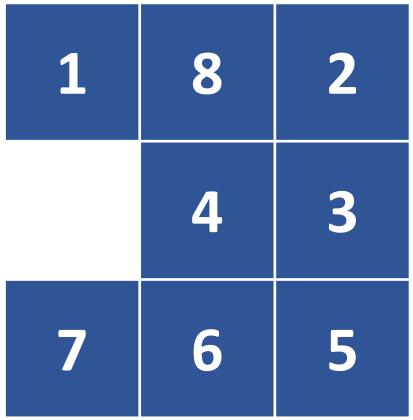
Mission 12. Sliding Puzzle Game (1/2)

- Construct a 3x3 Sliding puzzle game
  - 8 square pieces and one empty square are placed on a 3x3 grid board
  - each piece is numbered from 1 to 8
  - the player can slide a piece when it is adjacent to the empty square
  - the player wins the game when the pieces are arranged in ascending order on the board



Mission 12. Sliding Puzzle Game (2/2)

- Receive the initial arrangement from a file `puzzle.txt`
  - `0 stands for the empty square`
- Show the current arrangement graphically
- Receive a play command from Standard Input and update the arrangement continuously
  - commands: `up, down, left, right`



`puzzle.txt`

```
1 8 2
0 4 3
7 6 5
```

Mission 13. Sliding Puzzle Solver

- Read a given 3x3 sliding puzzle and find a solution of it
  - load an initial arrangement from `puzzle.txt`
  - reuse State.java and Solver.java from the River-crossing puzzle
- Visualize the initial state to the end state step by step
  - move to the next step when the user types `'next'` on keyboard (i.e., Standard Input)