

# Software for Mobile Devices

## Fall 2016

### Assignment 2

**Due Date: Friday, October 14, 2016**

#### Sliding Puzzle

You are required to make a **custom view** for a simple 3x3 sliding puzzle game (also known as 8-puzzle). Puzzle has 8 tiles numbered 1 – 8, initially shuffled and organized randomly, while space for one tile is blank. Ordering of tiles can be changed by moving the adjacent tiles to the blank space. Goal of the game is to organize tiles in ascending order when read in the left to right and top to bottom order, as illustrated in figure 1.



Figure 1 (a): Some initial state of the game



Figure 1 (b): Goal state of the game

While generating a 8-puzzle, it needs to be checked if the game is solvable. A good tutorial on solvability of 8-puzzle is available on University of Birmingham's web page on Solvability of the Tiles Game<sup>1</sup>

#### Sample Apps

- 8 Puzzle (<https://play.google.com/store/apps/details?id=com.belmikri.eightpuzzle&hl=en>)
- Sliding Tile Puzzle (<https://play.google.com/store/apps/details?id=com.meremammal.www.slidingtilepuzzle>)

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<sup>1</sup> Solvability of the Tiles Game (<https://www.cs.bham.ac.uk/~mdr/teaching/modules04/java2/TilesSolvability.html>)