

B. Write a collection of functions imitating the environment for Puzzle-8.

The functions for the puzzle 8 problems contains the following components:

- 1) Initial State - Initial configuration of blocks in a 3x3 matrix.
- 2) Goal State - Correct configuration of blocks (expected final state).
- 3) Actions - Instead of moving the numbered blocks, we can consider the empty space as an empty block and move it to achieve the final state. It can move either vertically or horizontally.
- 4) Goal Test - Checking if the new state is the same as goal state or not.
- 5) Transitions - Switching positions of moved and empty blocks.
- 6) Path Cost - Every step will have a cost which will be added to the total cost.