

## Behavioral Contract for Moving a Worker in Santorini

### Behavioral Contract: Move Worker

#### Preconditions:

- It is the current player's turn.
- The selected worker belongs to the current player.
- The target cell for the move is adjacent to the worker's current position.
- The target cell is unoccupied by other workers or domes.
- The upward difference in height between the worker's current cell and the target cell is at most 1.

#### Postconditions:

- The worker is relocated to the target cell.
- The worker's previous cell becomes unoccupied.
- If the target cell height is 1~3, the worker's height is updated to the height of the target cell.
- The game state is updated to reflect the move, checking for win conditions if the worker has moved onto a height of 3.

#### Example:

Suppose Player A's worker is height == 1 at cell (2,2), and they intend to move to an adjacent, unoccupied, height of 2, cell (3,2).

#### Pre-Move:

- Worker A1 at cell (2,2) with a height of 1.
- Cell (3,2) is height 2, unoccupied.

#### Action:

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- Player A moves worker A1 to (3,2).

Post-Move:

- Cell (2,2) is now unoccupied.
- Worker A1 is now at (3,2) with height == 2.
- The game checks if Worker A1 is at height == 3 to determine a win condition.