Contract: moveWorker with Demeter

Operation: Demeter.moveWorker()

Cross Refences: Use Case: the user attempt to move a worker with god card

named Demeter

Preconditions:

The destination grid has no worker.

The level of destination grid is less or equal or only one level higher than the

level of source grid.

The destination grid has no dome and the input coordinates are not out of

boundary of the game board.

The movement would not be blocked by other gods.

Postconditions:

The score of the player changed if the worker climbed to a higher tower

(attribute modification).

The Demeter was associated with the current grid (association formed).

The current grid was associated with the island board (association formed).

The Demeter's association with the old grid was broken (association delete).

Example and explanations:

If the player wants to move the Demeter, there are several preconditions. Firstly,

the destination grid has not been occupied by another worker. Secondly, the level

of the tower in destination grid is less or equal or only one level higher than the

level of the tower in source grid. Thirdly, there is no dome in the destination grid

and also the input coordinates should not be out of boundary. Finally, there are no other gods whose skill would block the movement of Demeter.

When the player moved the Demeter to another grid, several things changed. Firstly, the score of the player changed since the worker moved to a higher tower. The player would win the game if it meets the requirements. Secondly, a new association formed. The Demeter was associated with the current grid and the old association with the old grid was deleted. Finally, the current grid (new grid) was associated with the island board which is the main body of the game.