# Lab 2. Unit testing

## Lab goals:

1. Unit tests creation in order to test software components functionality.
2. Tests generation using JTest, C++ Test, Dot test or similar programs.

## Test enviroment: An algorithm from previous Lab task must be used in this part. Test subject: freight task algorithm generator.

## Steps:

## 1. Create a testing class called FormingTasksAlgorithmTest

## 2. Write 5 tests defined in Lab1.

## 3. Run tests

## 4. Evaluate results.

## Results:

## 5 Tests. 5 assertions Time: 2.17 seconds

## Testing class coverage: 98%

## Test code:

|  |
| --- |
| <?php  class FormingTasksAlgorithmTest extends PHPUnit\_Framework\_TestCase {  protected $gContainers;  private $db;  function \_\_construct()  {  require\_once('../../\_init.php');  $this->gSwapContainerAlgorithm =& load\_class('SwapContainerAlgorithm');  $this->db =& load\_class('DB');  }  /\*\*  \* @covers HM\_SwapContainerAlgorithm  \*/  public function testSingleContainerMovement()  {  $post = array();  $post['columns']['1-A-1']['Coordinates']['1']['1']['ID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['column'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-2';  $post['columns']['1-A-1']['blockID'] = '1';  $post['columns']['1-A-1']['row'] = 'A';  $post['columns']['1-A-1']['column'] = '1';  $post['columns']['1-A-1']['Name'] = '1-A-1';  $post['columns']['1-A-2']['blockID'] = '1';  $post['columns']['1-A-2']['row'] = 'A';  $post['columns']['1-A-2']['column'] = '2';  $post['columns']['1-A-2']['Name'] = '1-A-2';  $expResult = array();  $expResulttemp = array();  $expResulttemp['ContainerID'] = 1;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $realResult = $this->gSwapContainerAlgorithm->swapContainerAlgorithm($post['columns']);  $this->assertEquals($expResult, $realResult);  }  /\*\*  \* @covers HM\_SwapContainerAlgorithm  \*/  public function testMoveFullyLoadedContainerColumnToAnotherSpot()  {  $post = array();  $post['columns']['1-A-1']['Coordinates']['1']['1']['ID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['column'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Y'] = '3';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['ID'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['Y'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['to']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['to']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['2']['to']['column'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['to']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['to']['Y'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['to']['Name'] = 'column-1-A-2';  $post['columns']['1-A-1']['Coordinates']['1']['3']['ID'] = '3';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['Y'] = '3';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['to']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['to']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['3']['to']['column'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['3']['to']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['to']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['to']['Name'] = 'column-1-A-2';  $post['columns']['1-A-1']['blockID'] = '1';  $post['columns']['1-A-1']['row'] = 'A';  $post['columns']['1-A-1']['column'] = '1';  $post['columns']['1-A-1']['Name'] = 'column-1-A-1';  $post['columns']['1-A-2']['blockID'] = '1';  $post['columns']['1-A-2']['row'] = 'A';  $post['columns']['1-A-2']['column'] = '2';  $post['columns']['1-A-2']['Name'] = 'column-1-A-2';  $expResult = array();  $expResulttemp = array();  $expResulttemp['ContainerID'] = 3;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'3','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 2;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'2','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'2','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 1;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'3','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $realResult = $this->gSwapContainerAlgorithm->swapContainerAlgorithm($post['columns']);  $this->assertEquals($expResult, $realResult);  }  public function testBuildingFullContainerColumnOutOf3Columns()  {  $post = array();  $post['columns']['1-A-1']['Coordinates']['1']['1']['ID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['column'] = '4';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Y'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-4';  $post['columns']['1-A-2']['Coordinates']['1']['1']['ID'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['column'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['column'] = '4';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['Y'] = '3';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-4';  $post['columns']['1-A-3']['Coordinates']['1']['1']['ID'] = '3';  $post['columns']['1-A-3']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-3']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-3']['Coordinates']['1']['1']['from']['column'] = '3';  $post['columns']['1-A-3']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-3']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-3']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-3']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-3';  $post['columns']['1-A-3']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-3']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-3']['Coordinates']['1']['1']['to']['column'] = '4';  $post['columns']['1-A-3']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-3']['Coordinates']['1']['1']['to']['Y'] = '1';  $post['columns']['1-A-3']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-4';  $post['columns']['1-A-1']['blockID'] = '1';  $post['columns']['1-A-1']['row'] = 'A';  $post['columns']['1-A-1']['column'] = '1';  $post['columns']['1-A-1']['Name'] = 'column-1-A-1';  $post['columns']['1-A-2']['blockID'] = '1';  $post['columns']['1-A-2']['row'] = 'A';  $post['columns']['1-A-2']['column'] = '2';  $post['columns']['1-A-2']['Name'] = 'column-1-A-2';  $post['columns']['1-A-3']['blockID'] = '1';  $post['columns']['1-A-3']['row'] = 'A';  $post['columns']['1-A-3']['column'] = '3';  $post['columns']['1-A-3']['Name'] = 'column-1-A-3';  $post['columns']['1-A-4']['blockID'] = '1';  $post['columns']['1-A-4']['row'] = 'A';  $post['columns']['1-A-4']['column'] = '4';  $post['columns']['1-A-4']['Name'] = 'column-1-A-4';  $expResult = array();  $expResulttemp = array();  $expResulttemp['ContainerID'] = 3;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'3','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'4','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 1;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'4','row'=>'A','level'=>'2','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 2;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'4','row'=>'A','level'=>'3','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $realResult = $this->gSwapContainerAlgorithm->swapContainerAlgorithm($post['columns']);  $this->assertEquals($expResult, $realResult);  }  public function testContainerSwappingWithEachOther()  {  $post = array();  $post['columns']['1-A-1']['Coordinates']['1']['1']['ID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['column'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['ID'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['column'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['column'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['Y'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['blockID'] = '1';  $post['columns']['1-A-1']['row'] = 'A';  $post['columns']['1-A-1']['column'] = '1';  $post['columns']['1-A-1']['Name'] = 'column-1-A-1';  $post['columns']['1-A-2']['blockID'] = '1';  $post['columns']['1-A-2']['row'] = 'A';  $post['columns']['1-A-2']['column'] = '2';  $post['columns']['1-A-2']['Name'] = 'column-1-A-2';  $expResult = array();  $expResulttemp = array();  $expResulttemp['ContainerID'] = 1;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 2;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 1;  $expResulttemp['from'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $realResult = $this->gSwapContainerAlgorithm->swapContainerAlgorithm($post['columns']);  $this->assertEquals($expResult, $realResult);  }  public function testColumnShuffle()  {  $post = array();  $post['columns']['1-A-1']['Coordinates']['1']['1']['ID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['column'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Y'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['ID'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['Y'] = '2';  $post['columns']['1-A-1']['Coordinates']['1']['2']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['ID'] = '3';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['blockID'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['row'] = 'A';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['column'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['X'] = '1';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['Y'] = '3';  $post['columns']['1-A-1']['Coordinates']['1']['3']['from']['Name'] = 'column-1-A-1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['ID'] = '4';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['column'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['Y'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['from']['Name'] = 'column-1-A-2';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['column'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['Y'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['1']['to']['Name'] = 'column-1-A-1';  $post['columns']['1-A-2']['Coordinates']['1']['2']['ID'] = '5';  $post['columns']['1-A-2']['Coordinates']['1']['2']['from']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['2']['from']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['2']['from']['column'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['2']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-2']['Coordinates']['1']['2']['from']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['2']['from']['Y'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['2']['from']['Name'] = 'column-1-A-2';  $post['columns']['1-A-2']['Coordinates']['1']['3']['ID'] = '6';  $post['columns']['1-A-2']['Coordinates']['1']['3']['from']['blockID'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['3']['from']['row'] = 'A';  $post['columns']['1-A-2']['Coordinates']['1']['3']['from']['column'] = '2';  $post['columns']['1-A-2']['Coordinates']['1']['3']['from']['blockParkingSpotID'] = null;  $post['columns']['1-A-2']['Coordinates']['1']['3']['from']['X'] = '1';  $post['columns']['1-A-2']['Coordinates']['1']['3']['from']['Y'] = '3';  $post['columns']['1-A-2']['Coordinates']['1']['3']['from']['Name'] = 'column-1-A-2';  $post['columns']['1-A-1']['blockID'] = '1';  $post['columns']['1-A-1']['row'] = 'A';  $post['columns']['1-A-1']['column'] = '1';  $post['columns']['1-A-1']['Name'] = 'column-1-A-1';  $post['columns']['1-A-2']['blockID'] = '1';  $post['columns']['1-A-2']['row'] = 'A';  $post['columns']['1-A-2']['column'] = '2';  $post['columns']['1-A-2']['Name'] = 'column-1-A-2';  $expResult = array();  $expResulttemp = array();  $expResulttemp['ContainerID'] = 3;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'3','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 2;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'2','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 1;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 6;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'3','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 5;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'2','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 4;  $expResulttemp['from'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResulttemp['to'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 2;  $expResulttemp['from'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResulttemp['to'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'2','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 3;  $expResulttemp['from'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResulttemp['to'] = array('blockID'=>'1','column'=>'1','row'=>'A','level'=>'3','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 1;  $expResulttemp['from'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'1','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 5;  $expResulttemp['from'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'2','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $expResulttemp = array();  $expResulttemp['ContainerID'] = 6;  $expResulttemp['from'] = array('blockID'=>'temp','column'=>'temp','row'=>'temp','level'=>'temp','truckID'=>'temp','placeInHolder'=>'temp','transportType'=>'temp','blockParkingSpotID'=>'temp');  $expResulttemp['to'] = array('blockID'=>'1','column'=>'2','row'=>'A','level'=>'3','truckID'=>null,'placeInHolder'=>'1','transportType'=>null,'blockParkingSpotID'=>null);  $expResult[] = $expResulttemp;  $realResult = $this->gSwapContainerAlgorithm->swapContainerAlgorithm($post['columns']);  $this->assertEquals($expResult, $realResult);  }  } |