

## Assign 2 T16: makePathWithAssign

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by [Ara Cai](#) - Thursday, 15 May 2025, 11:48 PM

Hi Mark,

Thanks for your answers to my other Assignment 2 questions in the other thread. I thought I now understood what's required for the final method T16 `makePathWithAssign`, but after thinking about it again tonight, I realized I still hold some ambiguities regarding what we're being asked to do, so I decided to put my questions in this thread specifically about `makePathWithAssign`. I don't think I asked the right questions earlier (or at least not in the right way that shows why I find the instructions on this method vague), so hopefully I can properly convey the conceptual uncertainties I still have with it here.

I'll use a simple hypothetical New Mordor example. Let's say we have the following cities A, B, C, with their initial assignments in red. I'm using  $\emptyset$  to denote a null assignment.



Let's say our start city (`city1`) is A and target city (`city2`) is C. And suppose our target nation (`troopSource`) is **3**.

Question 1: After invoking `makePathWithAssign`, it should return **A-B-C** (as Vector object) because we can validly assign target nation 3 to city B along the path since it has a null initial assignment, right?

if yes,

Question 2: But should `makePathWithAssign` actually override B's null assignment and replace that with 3 during its call? Or should it only detect that possibility without actually performing any assignment?

Now let's say we're working with the following initial configuration, with the same start and target cities and target nation (3):



Question 3: You've previously indicated that no existing (which I assumed to mean non-null) assignment should be overwritten. Does this mean `makePathWithAssign` here should return an empty Vector (i.e. no paths possible) despite B having an invalid assignment, or, should it return **A-B-C** because it's possible to replace B's invalid assignment (1) with the target nation 3 *except we just don't actually perform this replacement in the function call* - we just check that it's notionally possible?

I feel that the specs for T16 and the POST condition given in `makePathWithAssign` do not really answer these questions regarding the actual execution of the method. To me, it's not clear exactly what `makePathWithAssign` should **do** - and what it's allowed and not allowed to do - in trying to identify possible paths from `city1` to `city2`. In particular, I feel there's no clear distinction made between checking notionally/theoretically vs. checking by actual filling/assigning as it executes. The reason I originally thought to ask about overriding assignments was because of the word `make` in the name `makePathWithAssign`, but I'm not so sure anymore that this function is allowed to "make" any paths.

It's my bad for not expressing my thoughts clearly enough in the other thread, hopefully this post can properly convey the ambiguities I currently hold regarding T16.

Many thanks for your clarifications as always.

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