

## REFACTOR

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The following five cards were selected to refactor the code:

adventurer, smithy, village, great\_hall and embargo.

Refactoring process: I made the following five new functions and invoked the appropriate one from the appropriate switch case.

1. Adventurer\_function(choice1, choice2, choice3, state, handPos, bonus)
2. Smithy\_function(handpos, currentPlayer, state)
3. Village\_function(handpos, currentPlayer, state)
4. GreatHall\_function(handpos, currentPlayer, state)
5. Embargo\_function(handpos, currentPlayer, state, choice1)

Functions Smithy\_function, Village\_function and GreatHall\_function need only handpos, currentPlayer and state as arguments. The other two functions were passed additional arguments because they were used in their function definitions.

For the Adventurer\_function and the Embargo\_function, an integer was returned by these functions, and this value was returned by the CardEffect function to its calling environment. The other three functions were simply made to return void, and 0 was returned by the CardEffect functions to its calling environment.

## BUGS

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The following bugs were introduced in the code:

1. Embargo\_function(): Return type of the function was modified to 1.
2. Embargo\_function(): state->coins = state->coins + 1 // +1 instead of +2
3. Village\_function(): state->numActions = state->numActions + 1 // +1 instead of +2
4. Village\_function(): discardCard(handPos, currentPlayer, state, 1) //Third argument was made from 0 to 1
5. Smithy\_function(): for(i=0; i<2; i++) // for loop condition was changed from i<3 to i<2
6. Smithy\_function(): discardCard(handPos, currentPlayer, state, 1) // Third argument was changed from 0 to 1
7. Adventurer\_function(): if (cardDrawn == copper||cardDrawn == silver||cardDrawn == copper) // gold changed to copper
8. Adventurer\_function(): return type of the function was changed from 0 to 1.