

After we know the minimum number of coins we can use (assuming this number exists) we can use A to know what coins we can use and how many we can use for each one. After the end of the iterative algorithm (see iterative pdf file) A will contain at the last index the result. Let the result be r .

We start from $A[\text{amount} + 1] = r$ and we iterate A until we reach $A[0] = 0$. we subtract from amount some coin c located in the array of coins and get a new amount, say, a . If $A[a] = r - 1$ then we can use the coin c because we used c and obtained the new amount for which the minimum number of coins we can use to pay the new amount is $r - 1$. If $A[a]$ not equal $r - 1$ then we go for the next coin in the array of coins

In the procedure *showCoins()* I used additional array for counting the number of coins we need for each coin.

From here it's not hard to implement the required procedure.