Lab Exercises

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November 4, 2022

Contents

1   Sample

```
Data: Some input data
Result: Same for output data
/* this is a comment                                        */
1  initialization;
2  if this is true then
3  |   we do that, else nothing;
4  |   if we agree that then
5  |   |   we do that;
6  |   else
7  |   |   else we will do a more complicated if using else if;
8  |   |   if this first condition is true then
9  |   |   |   we do that;
10 |   |   else if this second condition is true then
11 |   |   |   this is done
12 |   |   else if this other condition is true then
13 |   |   |   this is done
14 |   |   end
15 |   |   else
16 |   |   |   in other case, we do this
17 |   |   end
18 |   end
19 end
```
Algorithm 1: Algorithm to Demonstrate Different Ifs

2 Question 4a

Data: A set C=$\{c_1, c_2 \ldots c_r\}$of denominations of coiins where
$c_1 > c_2 > \ldots > c_r$ and a positive number n.
Result: A list of coins $d_1, d_2 \ldots d_k$ such that $\sum_{i=1}^{k}, d_i = n$ and k is
minimized.
1 $C \leftarrow \emptyset;//$ for $i \leftarrow 1$ to r do

Algorithm 2: makes change using smallest no. of coins