Vincent Mossman

Hierarchical Algorithm - PostLab07

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**Bold font** denotes abstract step

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| Assign7  **Process Initial\_Inventory**  put “Initial Inventory:”  **Display initial inventory**  **Process Transactions**  put “Updated Inventory:”  **Display updated inventory**  **Write Updated\_Inventory**  Display total sales transactions processed  Display total purchase transactions processed | **Level 0** |
| Display inventory (can be used for both initial and updated inventory)  *in* Chunky\_Num, Skybar\_Num, Valomilk\_Num, Zagnut\_Num  put “Cases of Chunky: “  put Chunky\_Num  put “Cases of Skybar: “  put Skybar\_Num  put “Cases of Valomilk: “  put Valomilk\_Num  put “Cases of Zagnut: “  put Zagnut\_Num | **Level 1** |
| Process Initial\_Inventory  *out* Chunky\_Num, Skybar\_Num, Valomilk\_Num, Zagnut\_Num  get File\_Name  open File\_Name  for Count 1 .. 4 loop  case Product\_Name  when Product\_Name is Chunky  get Chunky\_Num  when Product\_Name is Skybar  get Skybar\_Num  when Product\_Name is Valomilk  get Valomilk\_Num  when Product\_Name is Zagnut  get Zagnut\_Num  end case  end loop | **Level 1** |
| Process Transactions  *in out* Chunky\_Num, Skybar\_Num, Valomilk\_Num, Zagnut\_Num  *out* Sale\_Total, Purchase\_Total  get File\_Name  open File\_Num  loop  get Transaction\_Type  exit when Transaction\_Type is Done  if Transaction\_Type is Sale  Sale\_Total := Sale\_Total + 1  get Product\_Name  get Value  case Product\_Name  when Product\_Name is Chunky  Chunky\_Num := Chunky\_Num - Value  when Product\_Name is Skybar  Skybar\_Num := Skybar\_Num - Value  when Product\_Name is Valomilk  Valomilk\_Num := Valomilk\_Num - Value  when Product\_Name is Zagnut  Zagnut\_Num := Zagnut\_Num - Value  end case  elsif Transaction\_Type := Purchase  Purchase\_Total := Purchase\_Total + 1  get Product\_Name  get Value  case Product\_Name  when Product\_Name is Chunky  Chunky\_Num := Chunky\_Num + Value  when Product\_Name is Skybar  Skybar\_Num := Skybar\_Num + Value  when Product\_Name is Valomilk  Valomilk\_Num := Valomilk\_Num + Value  when Product\_Name is Zagnut  Zagnut\_Num := Zagnut\_Num + Value  end case  end if  end loop | **Level 1**  **Level 1** |
| Write Updated\_Inventory  *in* Chunky\_Num, Skybar\_Num, Valomilk\_Num, Zagnut\_Num  get File\_Name  open File\_Name  put “Chunky ”  put Chunky\_Num  new line  put “Skybar”  put Skybar\_Num  new line  put “Valomilk”  put Valomilk\_Num  new line  put “Zagnut”  put Zagnut\_Num  new line  put “Done” | **Level 1**  **Level 1** |

I was going to hand in a handwritten algorithm, but I kept changing it and rewriting it. So in the interest of saving trees and myself from hand cramps I typed it. Hopefully that’s fine with you.