COMPUTER PROGRAMMING

Fall 2023

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Question 2: Sorting Number

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Q2). Sorting a list of numbers in ascending orders.

A). Now there are various sorting methods in which some are given below.

1). BUBBLE SORTING METHOD:

2). Start
3). Get the list of ~~numbers~~ integers.
3). Get number of integers in list. (n)
4). For i=0 to n-1 (outer loop)
   a). For j=0 to n-i-1 (inner loop)
      i). Compare j-th & (j+1)-th integer.
      ii). If j-th integer is greater than (j+1)-th integer.
         → Swap j-th & (j+1)-th integers.
5). Repeat step 4 until outer loop completes without any swaps. (means list is sorted)
6). List has been sorted to ascending order.
7). End.

This is the most common sorting method to sort any list of integers.

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Question 3: Fibonacci Sequence

01-131232-059

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QUESTION 3: Calculating Fibonacci Numbers.

1). Start
2). Initialize ~~three~~ four variables, a, b & c, limit.
3). Intialize a = 0 & b = 1, (1st two fibonacci numbers)
4). Ask for limit of fibonacci sequence. (limit)
5). if (limit >= 1) ~~→ Output~~
→ Output / Print a. (1st fibonacci number i.e 0)
6). if (limit >= 2)
→ Print b (2nd fibonacci number i.e 1)
7). for i = 3 to limit (loop starting from 3rd fibonacci num)
a). ~~Initialize~~ Assign ~~&~~ to a + b, to c.
b). Print c (3rd fibonacci number).
c). Assign b to a & c to b.
8). //It will print fibonacci sequence upto limit entered.
9). End.

Above algorithm is for printing fibonacci sequence for a series of numbers whose limit is taken from the user.

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Question 4: Inventory Management

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Q4). Inventory Management.

1). Start.
2). Initialize an array of objects. (items)
3). In array, for each item in an object there should be,
→ Unique_Id, Name, Price, Description, Quantity.
4). Write 5 options for add item, remove item, Update, and generate report of item & exit.
5). If In case of add item, take Unique_Id, name & all detail and push to the array.
6). In case of remove item, take Unique_Id of which ever to remove and remove from array.
7). In case of update item, take Unique_Id of item to update & write what to update, and the replace the old value with new.
8). In case of generate report, print out all the objects in array with their values.
9). In case of exit, just print out goodbye.
10). End.

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