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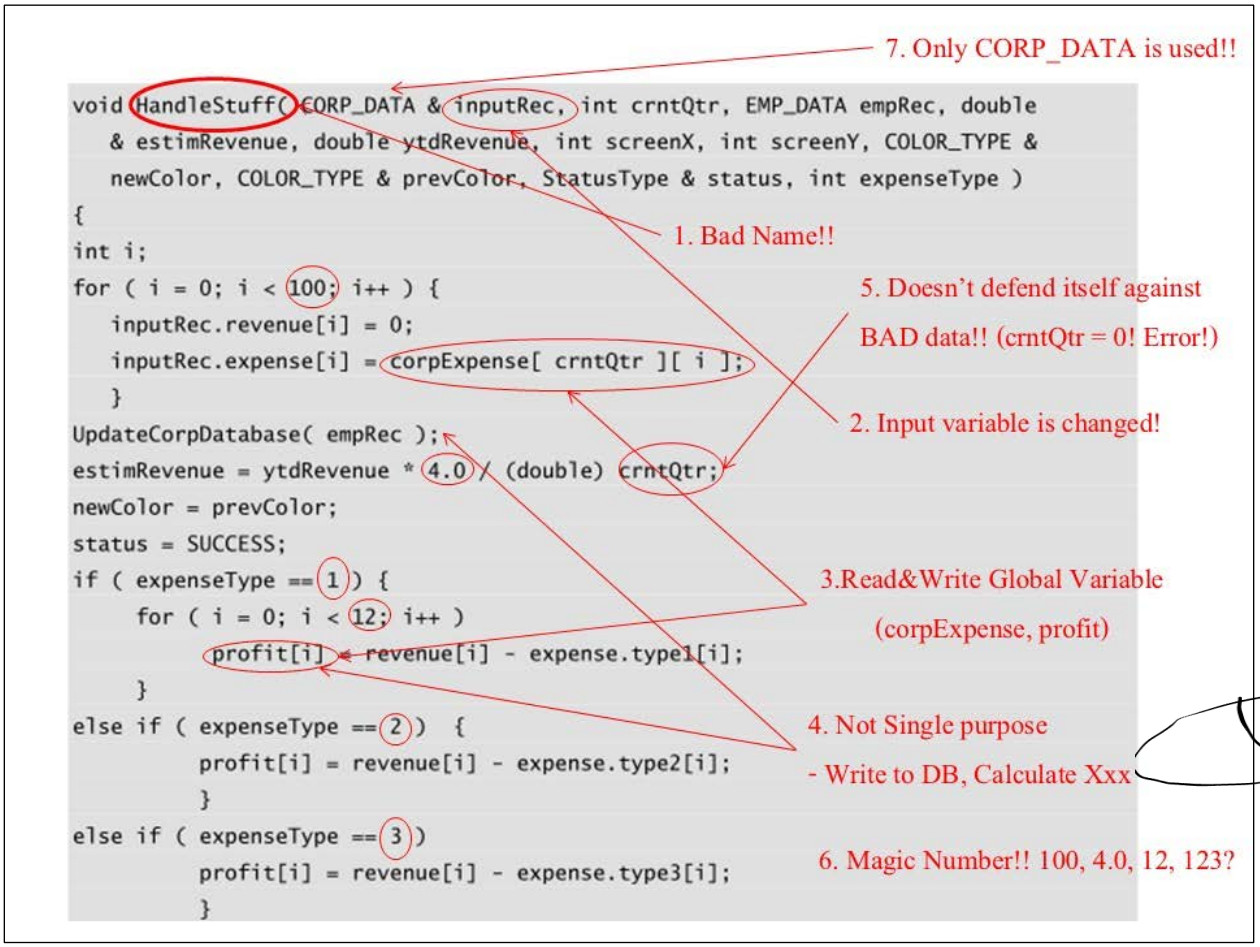
1. Review the Java code below, identify any errors, circle them, and explain why they are incorrect.

This is an example




```
void HandleStuff( CORP_DATA & inputRec, int crntQtr, EMP_DATA empRec, double
   & estimRevenue, double ytdRevenue, int screenX, int screenY, COLOR_TYPE &
   newColor, COLOR_TYPE & prevColor, StatusType & status, int expenseType )
{
int i;
for ( i = 0; i < 100; i++ ) {
   inputRec.revenue[i] = 0;
   inputRec.expense[i] = corpExpense[ crntQtr ][ i ];
   }
UpdateCorpDatabase( empRec );
estimRevenue = ytdRevenue * 4.0 / (double) crntQtr;
newColor = prevColor;
status = SUCCESS;
if ( expenseType == 1 ) {
     for ( i = 0; i < 12; i++ )
          profit[i] = revenue[i] - expense.type1[i];
     }
else if ( expenseType == 2 )  {
          profit[i] = revenue[i] - expense.type2[i];
          }
else if ( expenseType == 3 )
          profit[i] = revenue[i] - expense.type3[i];
          }
```

This is the code that you must review

```
1   public class ArrayExamples
2   {   public static void main(String[] args)
3       {   int[] list = {1, 2, 3, 4, 1, 2, 3};
4           findAndPrintPairs(list, 5);
5           bubblesort(list);
6           showList(list);
7
8           list = new int[]{ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11};
9           bubblesort(list);
10          showList(list);
11
12          list = new int[]{11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0, -1, -2};
13          bubblesort(list);
14          showList(list);
15
16          list = new int[]{1};
17          bubblesort(list);
18          showList(list);
19      }
20
21      public static int FINDMIN(int[] list)
22      {   assert list != null && list.length > 0 : "failed precondition";
23          int indexofmin = 0;
24          for(int i = 1; i < list.length; i++)
25          {   if(list[i] < list[indexofmin])
26              {   indexofmin = i;
27              }
28          }
29          return indexofmin;
30      }
31
32      public static void BadResize(int[] list, int newSize)
33      {   assert list != null && newSize >= 0 : "failed precondition";
34          int[] temp = new int[newSize];
35          int limit = Math.min(list.length, newSize);
36
37          for(int i = 0; i < limit; i++)
38          {   temp[i] = list[i];
39          }
40          list = temp;
41      }
42
43      public static int[] GoodResize(int[] list, int newSize)
44      {   assert list != null && newSize >= 0 : "failed precondition";
45          int[] result = new int[newSize];
46          int limit = Math.min(list.length, newSize);
47
48          for(int i = 0; i < limit; i++)
49          {   result[i] = list[i];
50          }
51
52          return result;
53      }
54
55      public static void findAndPrintPairs(int[] list, int target)
56      {   assert list != null : "failed precondition";
57          for(int i = 0; i < list.length; i++)
58          {   for(int j = i + 1; j < list.length; j++)
59              {   if(list[i] + list[j] == target)
60                  {   System.out.println("The two elements at indices " + i + " and "
                    + j
61                          + " are " + list[i] + " and " + list[j] + " add up to " +
                            target);
62                  }
63              }
64          }
65      }
```

Method names should follow Java naming conventions (camelCase)

Bad naming conventions

should be int[]

should be return temp directly

Method names should follow Java naming conventions (camelCase)

```
66
67
68      public static void bubblesort(int[] list)
69      {   assert list != null : "failed precondition";
70          int temp;
71          boolean changed = true;
72          for(int i = 0; i < list.length && changed; i++)
73          {   changed = false;
74              for(int j = 0; j < list.length - i - 1; j++)
75              {   assert (j > 0) && (j + 1 < list.length) : "loop counter j " + j +
76                      "is out of bounds.";
77                  if(list[j] > list[j+1])
78                  {   changed = true;
79                      temp = list[j + 1];
80                      list[j + 1] = list[j];
81                      list[j] = temp;
82                  }
83              }
84          }
85          assert isAscending( list );
86      }
87
88      public static void showList(int[] list)
89      {   for(int i = 0; i < list.length; i++)
90              System.out.print( list[i] + " " );
91          System.out.println();
92      }
93
94      public static boolean isAscending( int[] list )
95      {   boolean ascending = true;
96          int index = 1;
97          while( ascending && index < list.length )
98          {   assert index >= 0 && index < list.length;
99              ascending = (list[index - 1] <= list[index]);
100             index++;
101         }
102         return ascending;
103     }
104 }
```