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Lab 7 Pseudocode

1. **DUPLICATES**
2. Getduplicates()
3. File text = new File(filename + “.txt”)
4. Create scanner
5. Int prevKey, key, number
6. String dup = “”
7. Print “DUPLICATES”
8. WHILE (there’s a next line)
9. Number += 1
10. Key = in.nextInt()
11. String a = in.nextLine()
12. If (key == prevKey)
13. Dup = (dup + number + “ “ + key + a + “\n”)
14. prevKey = key
15. Return dup

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| Test Case | Output | Tested? |
| Input 1 | DUPLICATES  12 102380 CS US W 2.8 3.267 125  14 102395 PPCI US W 2.769 2.5 115  25 102567 PPCI US W 3.192 3.412 112  35 102912 CS US Z 3.81 3.667 88  44 103087 CS US Z 2.956 2.688 90  76 103944 CS US W 3.134 3.294 134  77 103944 CS US W 3.698 3.7 94  86 104046 CS US W 2.863 3.133 65  88 104047 CS US W 3.523 3.524 77  89 104047 CS US O 3.825 3.824 49  91 104048 CS US W 3.071 3 94  92 104048 CS US W 3.114 3.111 44  93 104048 CS US W 3.375 3.6 71 | yes |
| Input 2 | DUPLICATES | Yes |
| Input 3 | DUPLICATES  3 666 M  4 666 A  8 777 R  10 999 K | Yes |

1. **ARRAYS**
2. Scanner in = new Scanner(System.in)
3. Print (“How many days worth of temperatures do you have to enter?”)
4. Int days = Math.abs(in.nextInt())
5. Double[] temp = new double[days]
6. Double[] change = new double[days]
7. Int maxDay1, maxDay2
8. Double maxChange
9. For(int I = 0; I < temp.length; i++)
10. Print “Enter temperature for day,” + (I + 1)
11. Temp[i] = in.nextDouble();
12. For(int I = 0; I < temp.length – 1; i++)
13. Change[i] = temp[i+1] – temp[i]
14. maxChange = change[0]
15. maxDay1 = 1
16. maxDay2 = 2
17. for(int I = 1; I <change.length;i++)
18. if(Math.abs(change[i]) >= Math.abs(maxChange))
19. maxChange = change[i]
20. maxDay1 = I + 1
21. maxDay2 = I + 2
22. Print (“The maximum day to day high temperature change is **maxChange** and occurred between days **maxDay1** and **maxDay2**

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| Test Case | Output | Tested? |
| 5 days  95,92,68,72,70 | The maximum day to day high temperature change is -24.0 and occurred between days 2 and 3 | yes |
| 10 days  50,75,66,33,98,100,50,83,90,56 | The maximum day to day high temperature change is 65 and occurred between days 4 and 5 | yes |
| 7 days  50,56,70,45,49,30,60 | The maximum day to day high temperature change is 30 and occurred between days 6 and 7 | yes |
| 4 days  94,60,84,93 | The maximum day to day high temperature change is -34 and occurred between days 1 and 2 | yes |