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Project Equipment

Answer3

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                                                                                                                                                                                                                                                 3
4 public class maxeumsubarray [
5= static int maxSubarraySumCircufar(int)] nums) [
6    int n = numer.length;
6
      - @ (delauli package)
               // Cane 2: Maximum num nubarray with-offenlar wrapping int totalSum = 0; for (int-num: nums) { totalSum + nums} }
                                                                                                                                                                                                                                                                                                                // case 1: Maximum sum subarray without circular wrapping int maxNormal - ksdenc(nums):
■ JRt System Library (J2SE-1.5)
Answerd
■ stc
     🔻 🚜 (default package)
              # IRE System Library [CDC: 1:0/Foundation 1:0]
                                                                                                                                                                                                                                                                                                                 // Invert the signs of the array elements and find the minimum sum subarray
int[] invertedSums = new int[n];
for (int i = 0; i < n; i++) |
    invertedSums[i] = -nums[i];
}</pre>
Answer5
     - # (default package)
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    If firstnonrepeating java
    Immodule info java

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. masSubarraySumCitcular(int(): int
. kadane(int(): int
. main(String(): wood
. gctMasSubarray(int(): int): int()
                                                                                                                                                                                                                                                                                                                  int maxLircular = totalSum + kadane(invertedNums);
     ■ IRE System Library DavaSE 1.71
Answer6
                                                                                                                                                                                                                                                                                                                  // Peturn the maximum of the two cases return Math.max(maxNormal, maxCircular);
    → 🚜 (default package)
→ 🕖 maxdiffinheights java
                                                                                                                                                                                                                                                                                                // Kadanc's algorithm to find the maximum sum subarray static int kadanc(int) numm) {
   int maximum = numm([0])
   int currentSum = numms[0];
  return maxSum/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             * X X 3 0 4 0 5 0 1
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                                                                                                                                                                                          4 public class maxdifference (
             - # (delault package)
                    # maxsumsubarray java
# module-info.java
                                                                                                                                                                                                           static int maxhifference(int[] nums) {
   if (nums == null [1 nums.length < 2) {
      // Not enough elements in the array
      System.out.println("Array should have at least two elements");
   return =[;</pre>
       ■ JRE System Library (J251-1.5)
Answerd

    iii maxdifference.java

                                                                                                                                                                                                                   int minElement = nums[0];
int maxDifference = nums[1] - nums[0];
                     @ module info.iava
         M IRF System Library (CDC 1-D/Foundation 1-0)
                                                                                                                                                                                                                        for (int i = 1; i < numa.length; |ii) {
   int ourrentDifference = nums[i] = minElement;</pre>
  ₩ Answer5
    // Update maxDifference if a greater difference is found if (currentDifference > maxDifference) {
    maxDifference = currentDifference;
}

    D firstnonrepeating.java
    M module infojava

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      ■ JRE System Library (JavaSE-1.7)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ∨ Ø. maxdiffen
                                                                                                                                                                                                                                      // Update minElement if a smaller element is found
if (nums[i] < minElement) (
    minElement = numn[i];</pre>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . ★ maxDif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          • 'main(S

→ ∰ (default package)
→ ∰ moxdifficheights java
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                      ≝ module info java
      ■ IRE System Library [CDC-1:0/Foundation-1.0]
                                                                                                                                                                                                                        return maxDifference;
                                                                                                                                                                                                           public static void main(String[] arqs) {
   int[) nums = [2, 7, 9, 5, 1, 3, 5];
   int result = maxDifference(nums);
                                                                                                                                                                                                                        if (result != -1) {
    System.out.println("The maximum difference is " + result + ". The pair is (" + (nums[0] - result) + |
                                                                                                                                                                                 di Problems → Javadoc l'in Declaration → Search © Console >
                                                                                                                                                                                sterminateds maxdiffinhelights [livo Application] CAUsers\kgand\pZ\poo\plugins\org.edlpse.just] openjdk hatspot jre.hillwin32x86_64,21.0.1x20231028-0937.jre\bimjnow.ese. [10. lan. 2024, 92. Output for arris. 5. Output for arris. 9.
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- m # Task List ×
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                                                                                                                                                                                                                                                           Find
                                                                                 4 public class firstnonrepeating |
       static int findFirntNonRepeating(int[] arr) (
f/ Creato a HandMap to store the frequency of each element
WashMap<integer, integer> frequencyMap = new WashMap<>();
   Mt System Library (J251-1.5)
                                                                                               - B SH

ø (default package):

      // Iterate through the array to find the first non-kepeating element
for (int num : arr) [
    if (IrequencyMac.get(num) == 1) {
        return num;
     }
}
   M IRE System Fibrity (CDC ±0/Foundation ±0)
₩ Answer5
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   😕 🛲 (default package)
     irstnonrepeating.java

    ■ Outline ×
    ▼    ● Firstnonrepeating

      🦸 madale into java
                                                                                                // If no non-repeating element is found, return a sentinel value (e.g., -1) return -1;
  M JRE System Library (JavaSE-1.7)
                                                                                                                                                                                                                                                               * findFintNonRepeats
* main(Stringt)) void
· ST STC
                                                                                         public static void main(String(| args) {
   int[| ser[ - [-1, 2, -1, 3, 0];
   int result1 - finderseknokepeering(arrl);
   System.out.println("Output for arrl: " + result1);
  9 🗿 (default package)
      P maxdiffinheights java-
        at module into java
  ■ IRE System Library [CDC-1.0/Foundation-1.0]
                                                                                                int[] arr? = {9, 4, 9, 6, 7, 4};
int result2 = findfirs(NonRepeating(arr2);
System.out.println("Output for arr2: " + result2);
                                                                             If Problems = Javador & Declaration & Search & Console + steminaterly mandifficheights flow Application C Uberskipsed, p.2 pondphingins long eclipse just open fide horspot jee full win32 x86_54_21.0 t x2023 1028_093 Ajerbini pacewere (10 lan 2024_2024 2029 - 40 000 put for arr11 5 output for arr22 8
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Project Explorer
# Answers
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     - 🕏 (delault package)
                                                                       4 public class maxdittinheights (
       static int minimizeMaxDifference(int() arr, int \) (
   int n = arr.length;
    ■ JRE System Library (125E-15)
Answer4
                                                                                    // Sort the array
Arrayn.sort(arr):
  × ₱ sic
     - # (default package)
                                                                                    // initialize the result with the difference between the tallest and shortest tower int result = arr\{n-1\} = arr\{0\}:
        🗸 module info java
                                                                                    // Therase through the array and consider each toper at the potential minimum for (int i=0; i \le n-1; i+t) ( int - correctMin = Mach, min(arr[9] + k, arr[i+1] + k); int - correctMax = Math. max(arr[i] + k, arr[n-1] - k);
    ■ IRE System Hibrary [CDC + 0/Foundation 1.0]
 Answer5
   ~ (# src

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Æ (default package)

                                                                                        // Update the result if the new nonfiguration given a smaller difference result = Math.min(result, currentNax = currentNax);
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        I firstnonrepeating java
                                                                                                                                                                                                                        √ Q, maxdiffinhe
           🖟 moduše info java
     M JRE System Library (JavaSE-1.7)
                                                                                                                                                                                                                            • main(Sping
   Answer6
                                                                                     return result/
    E BO STE
                                                                               public static void main(String() args) [()
   int() arr1 = (1, 16, 10);
   int kl = 6;
   Syntem.our.println("Output for arr1; " ) minimizeMashifference(arr), kl));
      🗸 🚜 (default package)
         / I/ maxdiffinheights Java
           # module into Java
       M JRE System Library [CDC-1 0/Foundation-1:0]
                                                                                     int[] arr2 = [1, 5, 15, 10];
int k2 = 3;
System.out.println("Output_for arr2; " + minimizeMaxDifforence(arr2, k2));
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