53. Intersection of Three Sorted Arrays Given three integer arrays arr1, arr2 and arr3 sorted in strictly increasing order, return a sorted array of only the integers that appeared in all three arrays. Example 1: Input: arr1 = [1,2,3,4,5], arr2 = [1,2,5,7,9], arr3 = [1,3,4,5,8] Output: [1,5] Explanation: Only 1 and 5 appeared in the three arrays.

PROGRAM:-

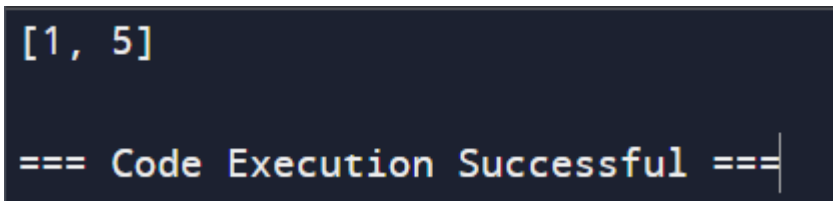
```
def arraysIntersection(arr1, arr2, arr3):
    result = []
    ptr1, ptr2, ptr3 = 0, 0, 0

    while ptr1 < len(arr1) and ptr2 < len(arr2) and ptr3 < len(arr3):
        if arr1[ptr1] == arr2[ptr2] == arr3[ptr3]:
            result.append(arr1[ptr1])
            ptr1 += 1
            ptr2 += 1
            ptr3 += 1
        else:
            min_val = min(arr1[ptr1], arr2[ptr2], arr3[ptr3])
            if arr1[ptr1] == min_val:
                ptr1 += 1
            if arr2[ptr2] == min_val:
                ptr2 += 1
            if arr3[ptr3] == min_val:
                ptr3 += 1

    return result

# Example usage:
arr1 = [1, 2, 3, 4, 5]
arr2 = [1, 2, 5, 7, 9]
arr3 = [1, 3, 4, 5, 8]
print(arraysIntersection(arr1, arr2, arr3))  # Output: [1, 5]
```

OUTPUT:-



TIME COMPLEXITY:-O(min(n,m,p))