Problem Solving on Loop

Assignment Solution

ASSIGNMENTS

1. Write a javascript program to print below pattern having numbers in pyramid form along with its mirror image

```
1 2 3 4 5 6 7
 2 3 4 5 6 7
  3 4 5 6 7
   4 5 6 7
    5 6 7
     6 7
      7
     6 7
    5 6 7
   4 5 6 7
  3 4 5 6 7
 2 3 4 5 6 7
1 2 3 4 5 6 7
```

Solution -> https://jsfiddle.net/j4kaw7hn/

```javascript
var rows = 7; // Number N


//Print the pyramid
for ( i = 1; i <= rows; i++)
{
for ( j = 1; j < i; j++)
  {
    document.write(" ");
  }
for ( j = i; j <= rows; j++)
  {
    document.write(j+" ");
  }
  document.write("<br>");
}


for ( i = rows-1; i >= 1; i--)
{
for ( j = 1; j < i; j++)
  {
    document.write(" ");
  }
for ( j = i; j <= rows; j++)
  {
    document.write(j+" ");
  }
  document.write("<br>");
}
```

2. Write a program to find the second smallest number from array using loops concept
Input -> [11,34,54,22,13,78]
Output -> 13

Solution -> https://jsfiddle.net/m1dvxr5a/

```javascript
function secondSmallest(arr) {
    var first, second, arr_size = arr.length;

    if (arr_size < 2) {
      console.log(" Invalid Input ");
      return;
    }

    first = second = Number.MAX_SAFE_INTEGER;
    for (i = 0; i < arr_size; i++) {

      if (arr[i] < first) {
        second = first;
        first = arr[i];
      } else if (arr[i] < second && arr[i] != first)
        second = arr[i];
    }
    if (second == Number.MAX_SAFE_INTEGER)
      console.log("There is no second" +
        "smallest element");
    else
      console.log("Second Smallest element is " + second);
}


var arr = [10, 13, 11, 22, 24, 15];
secondSmallest(arr);
```