**Sales Data IPO chart and Algorithm**

**IPO Chart**

|  |  |  |
| --- | --- | --- |
| **Input** | **Process** | **Output** |
| Enter each month of sales data | Prompt user for sales data | Display 1st, 2nd, 3rd, 4th,  total, monthOfHighest,  highest |
|  | FOR loop to initialize each element of array with users input | Display good bye message |
|  | CALCULATE firstQT, secondQt, thirdQt, fourthQt |  |
|  | FOR loop calculate total (all elements of array) |  |
|  | FOR loop calculate if (highest < salesArray[i])  highest = salesArray[i]  monthOfHighest = (i+1) |  |

**Algorithm**

**CLASS Main**

DECLARE INITIALIZE MONTHS\_IN\_YEAR = 12

**Main Method**

DECLARE INITIALIZE salesArray[MONTHS\_IN\_YEAR] , firstQT, secondQt, thirdQt, fourthQt, total, highest, monthOfHighest = 0

DECLARE instantiating Scanner Object

FOR loop (int i = 0; i < salesArray.length; i++)

INITIALIZE each element of salesArray[] with users input ( salesArray[i] = scan.nextDouble(); )

END

CALCULATE firstQT = salesArray[0] + [1] + [2] , secondQt = salesArray[3] + [4] + [5] , thirdQt = salesArray[6] + [7] + [8] , fourthQt = salesArray[9] + [10] + [11]

FOR loop (int i = 0; i < salesArray.length; i++)

CALCULATE total ( total += salesArray[i]; )

END

FOR loop (int i = 0; i < salesArray.length; i++)

CALCULATE highest, monthOfHighest

if(highest < salesArray[i]){

highest = salesArray[i];

monthOfHighest = (i+1);

END

END

OUTPUT firstQT, secondQt, thirdQt, fourthQt, total, monthOfHighest, highest

CLOSE Scanner object

**END of Main Method**

**END of CLASS Main**