Comsats University Islamabad

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**LabActivity**

(Software Construction)

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**Mode interface with pre-define conditions**

**public** **interface** Mode {

/\*\*

\* Finds one of the most frequent integers in an array.

\* **@param** values array in which at least one value occurs more than once.

\* **@return** a number that appears most often in values

\*/

**public** **int** getMode(**int**[] value);

}

**Mode interface with changes in pre & post conditions**

**public** **interface** myMode {

/\*\*

\* Finds most repeated value in an array.

\* **@param** atleast one value repeat in the array .

\* **@return** most repeated values in array of integers

\*/

**public** **int** getMode(**int**[] value);

}

**main code that implement those methos and get the required output**

//Task 1 to implement the interface class method.

**class** Implement\_Mode **implements** Mode

{

//Task2 code the getmode method

@Override

**public** **int** getMode(**int**[] Array) {

**int** arr\_length = Array.length;

**if**(arr\_length != 0)

{

**int** repeated\_value = -1;

**int** repeated\_count = 0;

**for**(**int** i = 0; i < arr\_length; i++) {

**int** count = 0;

**for**(**int** j = 1; j < arr\_length; j++) {

**if**(Array[i] == Array[j]) {

count++;

}

}

**if**(count > repeated\_count) {

repeated\_value = Array[i];

repeated\_count = count;

}

}

**return** repeated\_value;

}**else**{

**return** 0;

}

}

}

**class** Implement\_myMode **implements** myMode

{

//Task3 code the getmode method

@Override

**public** **int** getMode(**int**[] Array) {

**int** arr\_length = Array.length;

**if**(arr\_length != 0)

{

**int** repeated\_value = -1;

**int** repeated\_count = 0;

**for**(**int** i = 0; i < arr\_length; i++) {

**int** count = 0;

**for**(**int** j = 1; j < arr\_length; j++) {

**if**(Array[i] == Array[j]) {

count++;

}

}

**if**(count > repeated\_count) {

repeated\_value = Array[i];

repeated\_count = count;

}

}

**return** repeated\_value;

}**else**{

**return** 0;

}

}

}

**public** **class** implemet\_Mode\_Method {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**int**[] arr = {10,20,30,30,40};

Implement\_Mode mode =**new** Implement\_Mode();

System.***out***.println(mode.getMode(arr));

Implement\_myMode myMode =**new** Implement\_myMode();

System.***out***.println(myMode.getMode(arr));

}

}

