

## Question - 2

Java code:

```
import java.util.Scanner;
```

```
class Generalized {
```

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

```
        int n;
```

```
        Scanner scanner = new Scanner(System.in);
```

```
        n = scanner.nextInt();
```

```
        int numBatches = 4;
```

```
        int numStudents = 70;
```

```
        int batchSize, remainingStudents, numGroupsOfFour;
```

```
        int[] coursesGroupOfFourOnly = new int[4*n];
```

```
        int[] batchesGroupOfFourOnly = new int[4*n];
```

```
        int count = 0;
```

```
        int[][][] studentMentors = new int[n][numBatches]
                                         [numStudents];
```

```
        for (int i = 0; i < n; i++) {
```

```
            System.out.println("Course " + i + " : ");
```

```
            for (int j = 0; j < numBatches; j++) {
```

```
                System.out.println("Enter num of stud learners for  
batch " + j + " : ");
```

```
                batchSize = scanner.nextInt();
```

```
                numGroupsOfFour = batchSize/4;
```

```
                remainingStudents = batchSize - numGroupsOfFour*4;
```

```

int k;
for (k = 0; k < numGroupsOfFour; k++)
    StudentMentors[i][j][k] = 4;
    if (remainingStudents != 0)
        StudentMentors[i][j][k] = remainingStudents;
    else {
        CoursesGroupOfFourOnly[count] = i;
        BatchesGroupOfFourOnly[count++] = j;
    }
}
}
}

```

```

int iterator = 0;
if (BatchesGroupOfFourOnly.length != 0) {
    System.out.println("Batches with all groups of exactly 4");
    for (int course : CoursesGroupOfFourOnly) {
        if (iterator == count) {
            break;
        }
        System.out.println("Batches");
        System.out.println("Course: " + course + ":");
        System.out.println("Batch: " + BatchesGroupOfFourOnly[iterator++]);
    }
}
}
}
}

```