CURS JAVA SE

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Declararea unui array:

<type> [] <name> = new <type> [<length>] ;

- se foloseste atunci cand se cunoaste dimensiunea sirului si cand elementele aestuia sunt cunoscute
- fiecarui index i se asociaza o valoare

Exemplu:

String[] std = { "George", "Andrei", "Monica", "Camelia", "Vlad"};

Exemplu:

int sir[] = new int[4];

sir[0]=7;

sir[1]=4;

sir[2]=8;

sir[3]=5;

Multidimensional arrays (1)

Declararea unui array:

<type> [][] <name> = new <type> [<length>] [<length>];

Exemplu:

int sir2[][] = new int[2][3];

sir2[0][0]=7;   sir2[1][0]=7;

sir2[0][1]=4;   sir2[1][1]=5;

sir2[0][2]=8;   sir2[1][2]=12;

Exemplu:

String[][] std1 = {{"George", "Andrei", "Monica"},{"Andreea", "Eugen", "Andra"},{"Ion", "Gheorghe", "Maria"}};

Parcurgerea unui array multidimensional:

```
for (int i=0; i<arr.length; i++) {
    for (int j=0; j<arr[i].length; j++) {
        System.out.print(arr[i][j] + " ");
    }
    System.out.println();
}
```

Exercitiu:

Fie un array multidimensional cu urmatoarele note.

Sa se calculeze media fiecarui elev.

Se se calculeze media pentru fiecare materie.

	Romana	Matematica	Istorie	Geografie
George	10	8	6	10
Andrei	7	9	7	8
Monica	8	8	10	6
Vlad	7	7	9	8
Camelia	9	10	7	9

Exercitiu:

Se se afiseze urmatoarele modele:

```
#                      # # # # # # # #        # # # # # # # #                        #
# #                    # # # # # # #            # # # # # # #                      # #
# # #                  # # # # # #                # # # # # #                    # # #
# # # #                # # # # #                    # # # # #                  # # # #
# # # # #              # # # #                        # # # #                # # # # #
# # # # # #            # # #                            # # #              # # # # # #
# # # # # # #          # #                                # #            # # # # # # #
# # # # # # # #        #                                    #          # # # # # # # #
       (a)                    (b)                  (c)                   (d)
```

Hints: On the diagonal, row = col. On the opposite diagonal, row + col = size + 1.

Exercitiu:

Se se afiseze urmatoarele modele:

```
# # # # # #     # # # # # #     # # # # # #     # # # # # #     # # # # # #
#           #     #               #                 #       #     # #         # #
#           #       #               #           #       #     #   #   #   #
#           #         #               #       #           #     #     #     #
#           #           #               #   #       #     #   #   #   #
#           #             #             #     #       #     # #         # #
# # # # # #     # # # # # #     # # # # # #     # # # # # #     # # # # # #
     (e)             (f)             (g)             (h)             (i)
```

Exercitiu:

Se se afiseze urmatoarele modele:

```
# # # # # # # # # #                      #                                    #
  # # # # # # # # #                    # # #                                # # #
    # # # # # # #                    # # # # #                            # # # # #
      # # # # #                    # # # # # # #                        # # # # # # #
        # # #                    # # # # # # # # #                    # # # # # # # # #
          #                    # # # # # # # # # # #                # # # # # # # # # # #
         (j)                            (k)                        # # # # # # # # #
                                                                     # # # # # # #
                                                                       # # # # #
                                                                         # # #
                                                                           #
                                                                          (l)
```

Exercitiu:

Se se afiseze urmatoarele modele:

```
1                       1 2 3 4 5 6 7 8                 1        8 7 6 5 4 3 2 1
1 2                     1 2 3 4 5 6 7               2 1        7 6 5 4 3 2 1
1 2 3                     1 2 3 4 5 6             3 2 1        6 5 4 3 2 1
1 2 3 4                     1 2 3 4 5           4 3 2 1        5 4 3 2 1
1 2 3 4 5                     1 2 3 4         5 4 3 2 1        4 3 2 1
1 2 3 4 5 6                     1 2 3       6 5 4 3 2 1        3 2 1
1 2 3 4 5 6 7                     1 2     7 6 5 4 3 2 1        2 1
1 2 3 4 5 6 7 8                     1   8 7 6 5 4 3 2 1        1
      (m)                     (n)                 (o)                   (p)
```

Exercitiu:

Se se afiseze urmatoarele modele:

```
              1                    1 2 3 4 5 6 7 8 7 6 5 4 3 2 1
            1 2 1                    1 2 3 4 5 6 7 6 5 4 3 2 1
          1 2 3 2 1                    1 2 3 4 5 6 5 4 3 2 1
        1 2 3 4 3 2 1                    1 2 3 4 5 4 3 2 1
      1 2 3 4 5 4 3 2 1                    1 2 3 4 3 2 1
    1 2 3 4 5 6 5 4 3 2 1                    1 2 3 2 1
  1 2 3 4 5 6 7 6 5 4 3 2 1                    1 2 1
1 2 3 4 5 6 7 8 7 6 5 4 3 2 1                    1
            (q)                              (r)
```

Exercitiu:

Se se afiseze urmatoarele modele:

```
1                               1      1 2 3 4 5 6 7 8 7 6 5 4 3 2 1
1 2                           2 1      1 2 3 4 5 6 7   7 6 5 4 3 2 1
1 2 3                       3 2 1      1 2 3 4 5 6       6 5 4 3 2 1
1 2 3 4                   4 3 2 1      1 2 3 4 5           5 4 3 2 1
1 2 3 4 5               5 4 3 2 1      1 2 3 4               4 3 2 1
1 2 3 4 5 6           6 5 4 3 2 1      1 2 3                   3 2 1
1 2 3 4 5 6 7       7 6 5 4 3 2 1      1 2                       2 1
1 2 3 4 5 6 7 8 7 6 5 4 3 2 1         1                           1
              (s)                                      (t)
```