

Please create an Angular2+ web application which contains a login page and a game page. On the login page you select a user from a list and after providing the right password the app shall navigate to the game page. In case of a wrong password an error message should be shown.

On the game page there are four panels, initially all empty. Each panel contains 49 numbers in a small square. You can select a number by clicking inside this small square. You should be able to mark (select) manually as many number as you want in a panel. If you press the Random generator button (the panel's left upper corner), then the selection on the panel should be made automatically based on the generated random numbers (exactly 6 numbers). If you press the delete button in the right upper corner of the panel then the panel's selections are cleared.

When you press the Play button, you should display all panels' selections on the screen as follow:

1. If the panel is filled correctly (exactly 6 numbers) then you show the selected 6 numbers

**Panel *n*: [the selected number comma separated]**

2. If there is no mark on the panel,

**Panel *n*: empty**

3. If there is less or more then 6 selections, then you should write the text:

a.) **Panel *n*: Error: *x* marks are missing**

where *x* = 6 – (the number of selections on the panel if is less then 6)

b.) **Panel *n*: Error: Please remove *x* mark**

where *x* = (the number of selections on the panel if is more then 6) - 6

where *n*: is the big gray number inside the panel, let's call it the panel's index.

You can use any third party library.

Please create the following services:

1. for the login page:
  - a.) a user list service which provides a user list (hardcoded users with hardcoded passwords)
  - b.) a service which checks the password for the selected user
2. for the game page:
  - a.) a service which generates an array of random numbers, the length of the array (how many numbers to be generated) is provided in a parameter

If you have Java experience please create a backend with REST API. If you are not familiar with Java, please create Angular services instead of the java backend.

## The login page

The page design is up to you.

The page contains:

1. a user list, provided by the user list service. The user object has 2 fields: userId and userName
2. two textboxes: one for user id (TEXTBOX\_U), the other for the password (TEXTBOX\_P)
3. logon button

If you click on a user in the user list, the TEXTBOX\_U is automatically filled with the userId of the selected user. You should be able to enter a userId manually as well.

If you press the logon button then the logon service is invoked.

In case of success (password matches for the userId) the app navigates to the game page otherwise an error message is shown.

## The game page:

Please follow the provided design as close as it is possible.

The page contains 4 panels as in the following image:

RND							Del						
1	2	3	4	5	6	7							
8	9	10	11	12	13	14							
15	16	17	18	19	20	21							
22	23	24	25	26	27	28							
29	30	31	32	33	34	35							
36	37	38	39	40	41	42							
43	44	45	46	47	48	49							

The big gray number is the panel's index.

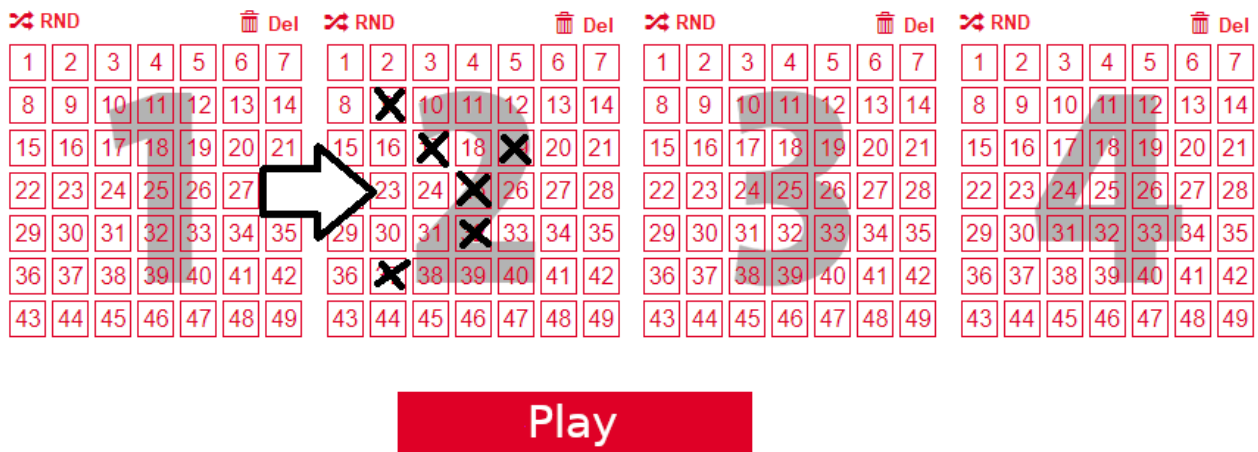
**RND** is clickable. If you press it then you invoke the random number generator service and you mark with an X the numbers provided by the random number generator service, like in the following picture:

RND							Del						
1	2	X	4	5	6	7							
8	9	10	11	X	13	14							
15	16	X	X	19	20	21							
22	23	24	25	X	27	28							
29	30	31	X	33	34	35							
36	37	38	39	40	41	42							
43	44	45	46	47	48	49							

**Del** is clickable. If you press it, then the corresponding panel's marks (the X's from that panel) will be deleted.

By pressing the Play button the selections from each panel should be listed as described in the beginning.

The final screen should look similar to the following picture:



Panel 1: empty

Panel 2: 9,17,19,25,32,37

Panel 3: empty

Panel 4: empty

Please create one unit test and one e2e test. The complexity is not important!

Please provide the Java and Angular source code.

None of the above tasks are mandatory, but please implement as many as you can.