

## ITRW222

### PRACTICAL 4 MINESWEEPER

At least 4 hours of work!! Please start today!

You need to compute the value of the cell – that is – the number of bombs in a 3x3 region of each cell and print it. Test your program with many bombs in a smallish grid- I added a frame of ZEROS round the game! This sorts out all the special cases – the user should not be aware of the frame! This caused lots of changes to MS3! My grid is 2 rows and 2 columns larger!!

In practical 4 you need to do the following:

1. Understand why we need the “border” – without a thorough understanding of this you will not be successful! The answer has to do with 3x3 regions of cells on the border.
2. Enlarge the grid and the field with 2 rows and 2 cols – do not add 2 to ROWS and COLS – it will not work! Why? You need to change all your for-loops!
3. Make sure that your toString() in the MCell class returns only one character – the correct label for the grid – and use it to display the text on the button/lable! Your toString will contain various if-statements!
4. Change the for loops in your listeners – do not test for the border-buttons! In the left button set the use the toString() of the Cell to set the label value.

0	0	0	0	0	0	0
0	B	B	3	B	2	0
0	4	4	5	B	3	0
0	B	B	5	B	2	0
0	B	B	B	2	1	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	1*1	2*1	3*1	4*1	5*1	0
0	1*2	2*2	3*2	4*2	5*2	0
0	1*3	2*3	3*3	4*3	5*3	0
0	1*4	2*4	3*4	4*4	5*4	0
0	0	0	0	0	0	0

0	0	0	0	0	0	0
0	B	B	B	B	2	0
0	3	6	B	B	3	0
0	B	3	B	5	B	0
0	1	2	1	3	B	0
0	0	0	0	0	0	0

Not the images are not taken from the same game – the bombs are different 😊