

Picking Flowers



Start, as always by making the maze.
Then, I coded the down and right buttons. You need to code the up and left buttons.

```
import javax.swing.*;
import java.applet.*;
import java.awt.event.*;
import java.awt.*;
public class Flowers extends Applet implements ActionListener {
    int forest[] [] = {{2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2},
        {2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2},
        {2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2},
        {2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2},
        {2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2},
        {2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2},
        {2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2},
        {2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2}};

    int row = 8;
    int col = 12;
    int x = 0;
    int y = 0;
    int points = 0;
    JLabel showPoint;
    JLabel pics[] = new JLabel [row * col];
    public void init () {
```

```

resize (1150, 780);
setBackground (new Color(0,158,0));
//TO DO: Add JLabel for Title
Panel grid = new Panel (new GridLayout (row, col));
int m = 0;
for (int i = 0 ; i < row ; i++) {
    for (int j = 0 ; j < col ; j++) {
        pics [m] = new JLabel (createImageIcon ("t" + forest [i] [j] + ".png"));
        pics [m].setPreferredSize (new Dimension (72, 72));
        grid.add (pics [m]);
        m++;
    }
}
add (grid);
JLabel ins = new JLabel("First, find the hidden key. Then the lock. Remember: Flowers gain points. Mushrooms lose them.");
add(ins);

//TO DO: Add JLabel for instruction
JButton up = new JButton ("up");
up.setActionCommand ("up");
up.addActionListener (this);
add (up);
JButton left = new JButton ("left");
left.setActionCommand ("left");
left.addActionListener (this);
add (left);
JButton down = new JButton ("down");
down.setActionCommand ("down");
down.addActionListener (this);
add (down);
JButton right = new JButton ("right");
right.setActionCommand ("right");
right.addActionListener (this);
add (right);
showPoint = new JLabel("Mario has "+points+" points.");
add(showPoint);
pics [x * col + y].setIcon (createImageIcon ("t1.png"));
}
public void actionPerformed (ActionEvent e) {
    //***** LEFT *****
    if (e.getActionCommand ().equals ("left")){
    }
    //***** UP *****
    else if (e.getActionCommand ().equals ("up")) {
    }
    //***** DOWN *****
    else if (e.getActionCommand ().equals ("down")) {
        if (x + 1 >= row)
            showStatus ("Off the board!!");
        else if(forest[x+1][y]==7)
            showStatus("Can't move on a rock");
        else {
            if (forest [x+1] [y] == 2)/* blank, can move*/ {
                showStatus("OK, moving down.");
                pics [x * col + y].setIcon (createImageIcon ("t2.png"));
                x++;
                pics [x * col + y].setIcon (createImageIcon ("t1.png"));
            } else if (forest [x+1] [y] == 3)/* found key, lock appears*/ {
                forest[x+1][y]=2;
                forest[0][11]=4;
                pics[0*col+11].setIcon (createImageIcon ("t4.png"));
                showStatus("You have found a key and unlocked the exit!");
                pics [x * col + y].setIcon (createImageIcon ("t2.png"));
                x++;
                pics [x * col + y].setIcon (createImageIcon ("t1.png"));
            } else if (forest [x+1] [y] == 4)/* found lock, you win!*/ {
                forest[x+1][y]=2;
                JOptionPane.showMessageDialog (null, "You win!", "Found the lock", JOptionPane.INFORMATION_MESSAGE);
                showStatus("You win!");
                pics [x * col + y].setIcon (createImageIcon ("t2.png"));
                x++;
                pics [x * col + y].setIcon (createImageIcon ("t1.png"));
            } else if (forest [x+1] [y] == 5 && points<=0 )/* not enough points*/ {
                showStatus("You can't go there. Go find flowers first");
            } else if (forest [x+1] [y] == 5)/* eat mushroom*/ {
                points--;
                forest[x+1][y]=2;
                showPoint.setText("Mario has "+points+" points.");
                showStatus ("Eaten a mushroom, lost 1 point.");
                pics [x * col + y].setIcon (createImageIcon ("t2.png"));
                x++;
                pics [x * col + y].setIcon (createImageIcon ("t1.png"));
            } else if (forest [x+1] [y] == 6)/* eat flower*/ {
                points++;
                forest[x+1][y]=2;
                showPoint.setText("Mario has "+points+" points.");
                showStatus ("Eaten a flower, gain 1 point.");
                pics [x * col + y].setIcon (createImageIcon ("t2.png"));
                x++;
                pics [x * col + y].setIcon (createImageIcon ("t1.png"));
            } else if (forest [x+1] [y] == 8 && points<=0 )/* not enough points*/ {
                showStatus("You can't go there. Go find flowers first");
            } else if (forest [x+1] [y] == 8)/* ?, key appears */ {
                forest[x+1][y]=2;
                points-=2;
                forest[7][0]=3; //add key
            }
        }
    }
}

```

