

Alice Lab 3

1. **Cheshire Cat.**
 - a) Add a Cheshire Cat (Animals) and a tree (Nature). Create a method for the Cheshire Cat called “disappear” that makes the cat disappear, but not the smile. (You may have to do some things “together” to make this happen nicely). Test this method to make sure it works properly. Then create another method of the Cheshire Cat called “appear” that reverses the “disappear”, making the cat look normal.
 - b) Add a two-button switch (Controls) to the world and put it on the tree so it is easily visible. Add the programming that makes the cat disappear when the red button is clicked, and appear when the green button is clicked. Call me or the TA over to take a look at this when you finish it
2. **Jump.** Build a new world with three persons. Write ONE method called “jump” that is invoked when any one of the persons is clicked with the mouse. The person clicked should move up one meter and then back down one meter. If anything else is clicked, nothing should happen.
3. **Flowers.** Using a box (Shapes) and 3 different flowers (Nature) build a flower box. Set up the flowers so that they are pushed down below the level of the box, so cannot be seen when the world starts. Write a program that makes each flower grow by a random amount. When the world is started, the flowers should start growing without stopping.
4. **Random Lock.** Create a new world that has a combination lock (Objects). Make it large enough that we can easily see the numbers. Create a method called spin that is invoked whenever someone clicks on the lock. The spin method should make the lock turn a random number of “clicks” clockwise.