

I. More complex Actor behavior

A) Getting Started

Using BlueJ open from the G drive in the BlueJ folder in the GridWorld folder **ch3lab2and3**  
Save onto your H drive. Run the RabbitRunner program.

B) In the Rabbit class change the probability of breeding from 15 to 100 and the change the probability of dying from 10 to 0.

Predict what will happen when Compiled and Run.

Now Run it.

1) Did you predict correctly? (yes/no) 1) \_\_\_\_\_

C) In the Rabbit class change the probability of dying from 0 to 100.

(Note: Keep the probability of breeding at 100.)

Predict what will happen when Compiled and Run.

Now Run it.

1) Did you predict correctly? (yes/no) 1) \_\_\_\_\_

II. Modifications

A) Modify the generateChild(Location loc) method to construct children with random color:

Change each `new color(etc, etc, etc)` to `randomColor( )`

B) Change the probabilities that the different generation of children will breed and die where each generation will live longer and breed more:

Generation 1: probability of dying = 50, probability of breeding = 3

Generation 2: probability of dying = 25, probability of breeding = 6

Generation 3: probability of dying = 12, probability of breeding = 12

Generation 4: probability of dying = 6, probability of breeding = 25

Generation etc (age  $\geq$  5): probability of dying = 3, probability of breeding = 50

C) The original Rabbit should have a probability of dying = 30 and probability of breeding = 50

Compile and Run

Save the project as GWch3lab3II

When perfect, show your teacher the coding and output (run).

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(teacher signature)

**Turn in this sheet to be graded!**