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CPTR241

HW20 design

Class world

Member variables

final int size: defines how big the world is

Char grid[][]: shows a version of the world

JFrame gridFrame: shows a swing version of the world

JLabel labels[size][size]: shows what is where

int tempX, tempY: give coordinates of bug before move

Bool isTaken: is the space occupied?

void worldMove(bug b, int dir): moves a bug b in a direction dir

int get Type(bug b): what kind of bug is it?

void printGrid(): updates the frame

Member methods

toString: displaniys a written representation of the world

Class bug

Variables

int bugType: what is it, used for comparison (1= ant, 2=doodlebug, 0= empty space)

Bool hasEaten: has the bug eaten?

int stepCtr: how many steps since it last ate or bred?

Functions

void bugMove(): bts for worldMove

void kill(): resets square to blank

void setHB(bool b): sets hasBred to b

Bool getHB(): returns hasBred

void setHE(bool b): sets hasEaten to b

Bool getHE(): returns hasEaten

Int getType(): returns bugType

Void setType(int t): sets bugType to t

Class main:

Public static void main(String args[]) : starts bug and world