Name: _____

Programming Assignment #2
Selection, Repetition & Threads

****Remember to follow all programming conventions when creating your code.*
Your solution should demonstrate the principles of Stepwise Refinement.
There is a video clip provided that demonstrates the program output

Jeeven and Basmala are instances of ShovelBot and they are in business together as snow shovelers. They clear the driveways & sidewalks for their clients. In the initial situation given, Jeeven & Basmala are both starting at the north end of the side walk. Since Basmala has worked longer this day, she is only going to shovel the last driveway and the adjacent sidewalk. Basmala walks to street 6 and then working together at the same time, they will shovel the snow (Things) from the driveways and sidewalks. Each covered driveway intersection has 0 or 1 thing on it. They keep shovelling until an open sidewalk intersection is reached.

You can assume all driveways always extend eastwards from the sidewalk. The width of driveways are only one or two intersections wide.

Part #1 – SnowMain

Use the SnowCity.txt configuration file & template provided initiate the actions required to shovel the sidewalks & driveways. Jeeven and Basmala should both execute as separate threads.

Part #2 – ShovelBot

Use the template provided that extends the RobotSE class to create a ShovelBot class that must have the following services & attributes:

void clearSnow( ) - The Robot performs the task of clearing snow from the sidewalk and driveways. This is the method called to start shovelling snow.

Boolean checkForDriveWay – The given code for ShovelBot checks if there is a driveway east of the sidewalk. Use this code as part of your solution.

void clearDriveway() clears the driveway

Create at least one more appropriate helper method (clearly identify it in the method header with the method purpose statement as a Helper Method) that should be used to support at least one of the three above listed services.

Create an encapsulated instance variable called snowCount that will be used to count the amount of snow (number of things) a ShovelBot picks up. Include an appropriately named access method to retrieve the value of snowCount.

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