Comprehensive lab 3

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.1 The Pecan tree class*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?
4. How many variables (and datatypes) do you need?
5. How many methods do you need (including constructors and getters/setters)?
6. Draft the methods' signature for 3.1.i and 3.1.ii

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.1 The Pecan tree class*

Questions:

1. What do you need to accomplish? Define a pecan class with appropriate getter/setter for all attributes. Define two methods and at least one constructor
2. Which topics you need to review for this task? Variables, methods, classes, override, conditionals
3. In which labs have you encountered this functionality?
4. How many variables (and datatypes) do you need?
5. How many methods do you need (including constructors and getters/setters)?
6. Draft the methods' signature for 3.1.i and 3.1.ii.

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method I – Creating objects*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?
4. How many Pecan trees do you need to create?

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method I – Creating objects*

Questions:

1. What do you need to accomplish? Initialize the "size of the firm" variable and create objects (stored in an array or a linked list as a bonus option)
2. Which topics you need to review for this task? File reading, loops, variables, arrays
3. In which labs have you encountered this functionality? Comprehensive lab 1
4. How many Pecan trees do you need to create? An undefined number of objects

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method ii – Total yield per acre*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?
4. How can you calculate the total yield per acre?

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method ii – Total yield per acre*

Questions:

1. What do you need to accomplish? Create a method that will return the total yield per acre
2. Which topics you need to review for this task? Methods, variables, for-loops
3. In which labs have you encountered this functionality?
4. How can you calculate the total yield per acre?

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method iii – Display pruning*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method iii – Display pruning*

Questions:

1. What do you need to accomplish? Create a method that will display the ID of those trees that need pruning
2. Which topics you need to review for this task? For-loops, methods
3. In which labs have you encountered this functionality?

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method iv – Update information*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?
4. How many methods do you need to create?
5. Draft the method's signature

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method iv – Update information*

Questions:

1. What do you need to accomplish? Create a method to update the information of a tree
2. Which topics you need to review for this task? Methods, switch, if-else, scanner
3. In which labs have you encountered this functionality?
4. How many methods do you need to create? One will suffice, but you can have more
5. Draft the method's signature

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method v – Find trees by*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?
4. How many methods do you need to create?
5. Draft the methods' signature

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method v – Find trees by*

Questions:

1. What do you need to accomplish? Create methods for finding trees that match a specific criteria
2. Which topics you need to review for this task? Methods, if-then conditionals, for-loops
3. In which labs have you encountered this functionality?
4. How many methods do you need to create? At least three
5. Draft the methods' signature

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method vi – Print all trees*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?
4. How are you going to use the toString() method? Draft an example

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method vi – Print all trees*

Questions:

1. What do you need to accomplish? Create a method that outputs the information of all the trees
2. Which topics you need to review for this task? For-loops, methods
3. In which labs have you encountered this functionality?
4. How are you going to use the toString() method? Draft an example

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method vii – The main method*

Questions:

1. What do you need to accomplish?
2. Which topics you need to review for this task?
3. In which labs have you encountered this functionality?
4. How many times are you going to repeat the menu?

Think out loud!

Comprehensive lab 3

Work in teams of 2 or 3!

Create a draft of your solution for: *3.2 The PecanFirm class. Method vii – The main method*

Questions:

1. What do you need to accomplish? Define a main method
2. Which topics you need to review for this task? Methods, output, while-loop
3. In which labs have you encountered this functionality?
4. How many times are you going to repeat the menu? Undefined

Comprehensive lab 3

TIPS & RUBRIC

Comprehensive lab 3 - Tips

Start early.

Plan to work 3 to 5 additional hours outside the lab to complete this assignment.

Ask clarifying questions to the instruction team if something is not clear.

Plan to submit at least 1 hr. before the deadline (lab day at midnight) to deal with potential Blackboard bugs.

Keep it simple!

Comprehensive lab 3 - Rubric

15% - Pseudocode document (Includes task description, variable names and description, pseudocode, and assumptions) – First deliverable, use abstraction!
5% - Appropriate use of input/output operations (in Java)
5% - Appropriate use of conditional (i.e., if-then) statements (in Java)
5% - Appropriate use of iterations (i.e., for-loop, while-loop) statements (in Java)
5% - Appropriate use of arrays (in Java) 25% - Appropriate use of methods (in Java)
20% - Appropriate use of methods (in Java)
10% - Appropriate use of Class/Objects (in Java)
5% - Appropriate documentation (in Java) – Follow the example on the code provided
5% - Appropriate notation and indentation (in Java)
15% - Program compiles, runs and contains the functionality required
5% - Student answers all questions during demo. – No demo == no grade (Demo during Office hours or labs if necessary)
20% - Bonus feature – if(Go above and beyond the call of duty) return “Bonus!”; else return “Try harder for next lab”;

Comprehensive lab 3 - Rubric

Penalization:

7.5% - Every 24 hours for up to 72 hours. For example, if you submit 36 hours later your maximum percentage is 85%.

10% - Not following the instructions for submission. (Name of file, deleting header)

Refer to the course syllabus for policies on academic dishonesty.