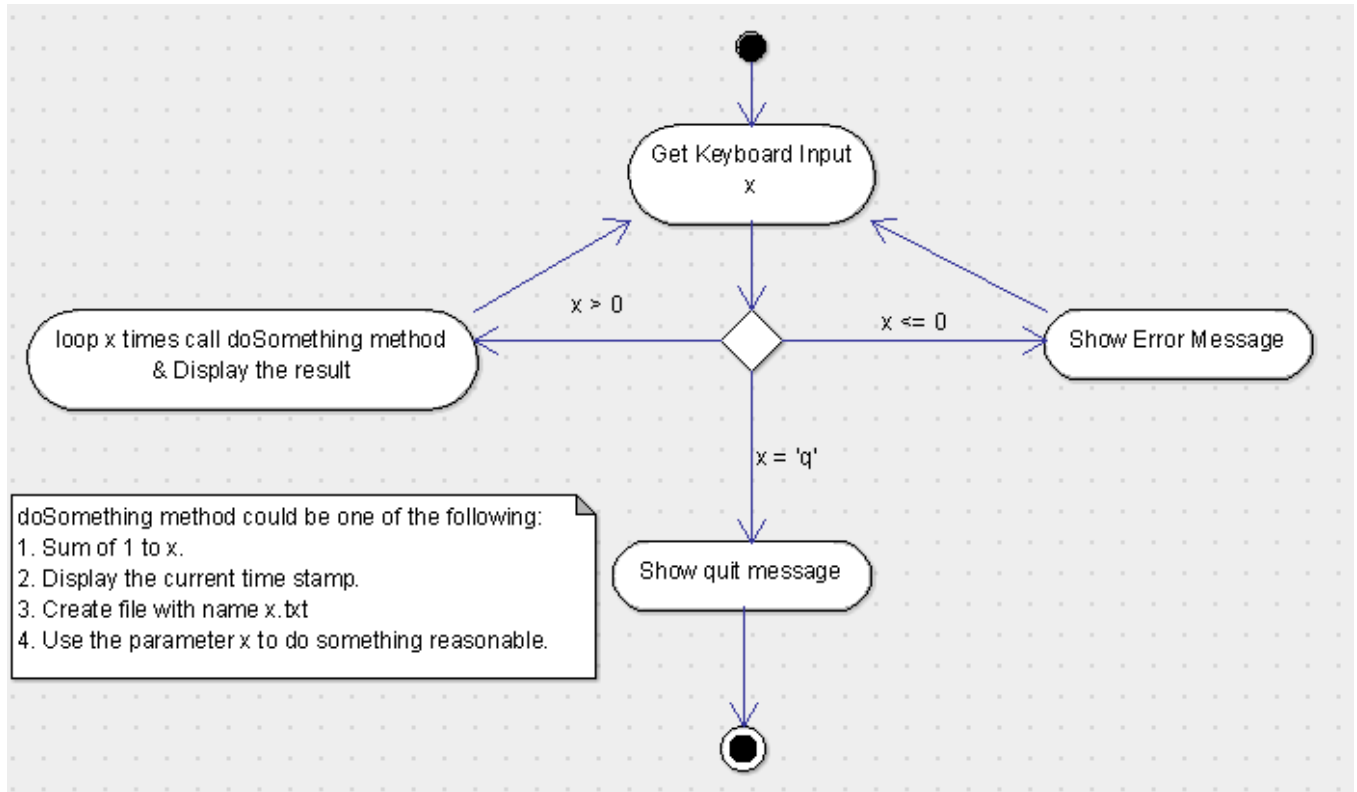


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Assignment 1

1. What is JDK? JRE? JVM?
 - *JDK stands for Java Development kit. It provides the developer tools like compiler, debugging, Javadoc etc.*
 - *JRE stands for Java Runtime Environment and has all the runtime libraries and API's that my program will be calling.*
 - *JVM stands for Java Virtual Machine reads the compiled byte code(.class files) and translates it to machine readable format to be executed by OS*
2. What is java compiler? *Compiler is a program that translates the source code to byte code which is understood by the JVM*
3. Why is java platform independent? *Because the compiled java source code(bytecode) can be run on any operating system.*
4. What is IDE? Why is it important for developers? *IDE stands for integrated development environment and it's a tool that is used to edit the source files, debug and even execute them. It is important because it has all automation features built into it thus saving time and increases productivity.*
5. Is java case sensitive? Yes
6. What do the following key words do?
 - *static, is a keyword used to denote that a variable or method that belongs to the class rather than an instance of the class. They will be the same for every instance of the class.*
 - *final, is a keyword when used, the value of variable cannot be changed or when used on a method it means it cannot be overridden or when used in a class it means it cannot be extended.*
 - *public, is an access modifier meaning a method or member can be accessed anywhere*
 - *private, is also an access modifier which means method or member can be accessed only within the same package*
 - *void, is a keyword used to denote a method that doesn't return anything*
 - *null, null is a no-object or empty for reference variables.*
 - *package, it's a namespace used to organize related classes.*
 - *Class, is a user-defined blue-print used to build specific type of objects, define its member data types and methods.*
 - *New is used to create an instance of the class by allocating the memory for new object. Returns reference to that class.*
7. What is primitive type and reference type? *Primitive data types are datatypes that are readily available or provided by the programming language. Like floats, char, byte, int. Reference type are datatypes that contain memory addresses of the objects created. Good example is Strings. Integer*
8. Is parameter passed by value or reference? *Pass by value*
9. What is the output: `System.out.println(1 > 0 : "A":"B");` *results in compilation error*

10. How to define constants in java? *Using final keyword i.e final double pi = 3.142;*
11. What is String? Is it primitive type? *Is a datatype used for storing text, often as array of characters.*
12. How to check if a String is representing a number? *I would use a try catch block and try parsing the string using Integer Wrapper class.*
13. Write a program to implement the following activity diagram:



14. Write a program to merge two array of int.
 15. Write a program to find the second largest number inside an array of int.
- Solutions to above 3 problems are here: <https://github.com/gkiprono/homework-1.1.git>