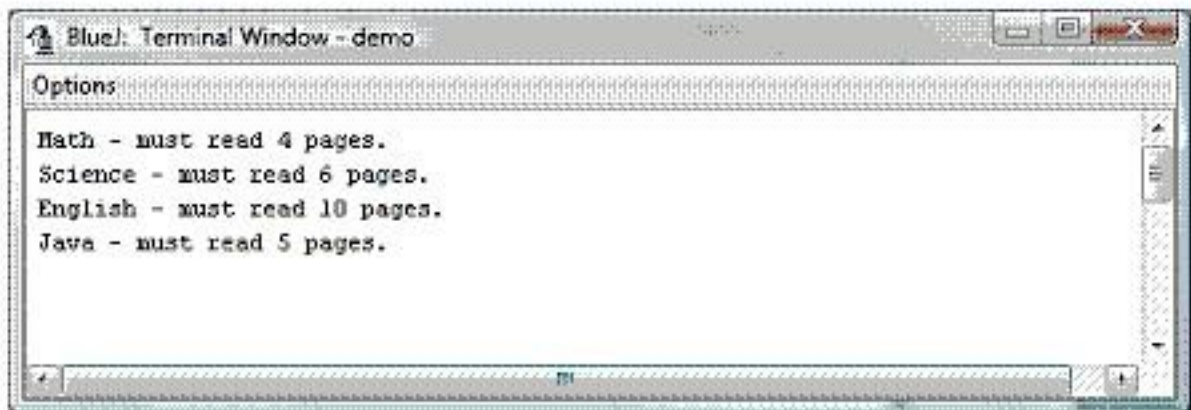


Assessment Instructions

Instructions: For this assessment, you are going to create an abstract class and then extend it.

1. Create a folder called Assessment in your Unit 5 assessments folder.
2. Create an abstract class called Homework.
 - a. Homework will need an instance variable `pagesRead` and methods to get and set the number of pages to Read. `pagesRead` should be of type `int`.
 - b. Homework will also need an instance variable `typeHomework` and a method to get and set the type of Homework. `typeHomework` should be of `String` type.
1. c. Homework will also need an abstract method `createAssignment()`, which has parameters `int p`. Its return type should be `void`.
 - c. You will not have to add any other additional instance variables or methods, but
2. you will have to set up the constructor to provide `pagesRead` with default value of 0 and `typeHomework` with default value of "none." It should take no arguments.
 - d. Save the class as `Homework.java`.
3. You are to create a class called `MyMath` that extends class `Homework`.
 - a. `MyMath`'s constructor will just call `Homework`'s constructor and again have no arguments.
 - b. `MyMath` should implement the `createAssignment` method by setting the pages read using parameter `p`, and then set the type of Homework to "Math."
 - c. Include a `toString()` method that lists the type of Homework and the pages that have to be read for Homework.
 - d. Save the class as `MyMath.java`.
4. You are to create a class called `MyScience` that extends class `Homework`.
 - a. `MyScience`'s constructor will just call `Homework`'s constructor and again have no arguments.
 - b. `MyScience` should implement the `createAssignment` method by setting the pages read using parameter `p`, and then set the type of Homework to
3. "Science."
 - c. Include a `toString()` method that lists the type of Homework and the pages that have to be read for Homework.
 - d. Save the class as `MyScience.java`.
5. You are to create a class called `MyEnglish` that extends class `Homework`.
 - a. `MyEnglish`'s constructor will just call `Homework`'s constructor and again have no arguments.
 - b. `MyEnglish` should implement the `createAssignment` method by setting the pages read using parameter `p`, and then set the type of Homework to "English."
 - c. Include a `toString()` method that lists the type of Homework and the pages that have to be read for Homework.
 - d. Save the class as `MyEnglish.java`.
6. You are to create a class called `MyJava` that extends class `Homework`.

- a. MyJava's constructor will just call Homework's constructor and again have no arguments.
- b. MyJava should implement the createAssignment method by setting the pages read using parameter `p`, and then set the type of Homework to "Java."
- c. Include a `toString()` method that lists the type of Homework and the pages that have to be read for Homework.
- d. Save the class as `MyJava.java`.
- d. Create a test program called `testHomework.java` to test your class. Use an `ArrayList` of type `Homework` to test your class. Your output should be similar to:



```
BlueJ: Terminal Window - demo
Options:
Math - must read 4 pages.
Science - must read 6 pages.
English - must read 10 pages.
Java - must read 5 pages.
```