

## Scanner Lab: Some Hints:

**Hint #1 :** Read the following line in the lab document carefully

```
return currentChar >= '0' && currentChar <= '9';
```

Since characters use ascii value for comparison with < and > think about how you could use this to check if `currentChar` is a letter ... on similar lines.

**Hint #2 :** Your `nextToken` method must try tokenizing the input based on the `currentChar` as either an identifier, number, operand and if none of these throw a `ScanErrorException` indicating an unrecognized character.

Tip: You must also catch the corresponding exception so that the execution continues further.

Next: End the execution using `System.exit` indicating an error situation, abnormal termination. Finally: Comment out the line that continues execution skipping over unknown characters and turn in your Scanner lab with `System.exit(...)`;

**Hint #3 :** Your scan methods `scanNumber`, `scanIdentifier` ... should not take in a parameter. They must work with the instance variable `currentChar`.

**Hint #4 :** Do NOT use `getNextChar` anywhere except in the constructor and the `eat` method. Use `eat` instead to read the next character from file. What will be the parameter you pass to `eat`? Can you think about how this lookahead might be useful later? Answer these questions in your notebook.

**Hint #5 :** Write a tester with a `main` method that reads the test files `scannerTest.txt` and `scannerTestAdvanced.txt`. Use a `FileReader`, `File` etc. Figure this out yourself – recommended. (or ask me for help.) The tester must print the tokens one on each line and must end with an "EOF" token.

**Hint #6 :** A period '.' must indicate end of file and return an "EOF" token. Think about how you could modify your `getNextChar` method to handle this case. Test that putting a '.' anywhere in your .txt input files terminates the file tokenization and returns an "EOF" token.