

<https://github.com/mocadavid/LFTC/tree/Lab5>

```
/**
 * The grammar class.
 */
public class Grammar {

    private List<String> nonTerminals;
    private Set<String> terminals;
    private List<Production> productions;
    private String startingSymbol;

    /**
     constructor
     */
    public Grammar();

    public List<String> getNonTerminals();
    public Set<String> getTerminals();
    public List<Production> getProductions();
    public String getStartingSymbol();

    /**
     * Reads a grammar definition from a file.
     */
    private void loadGrammar();

    /**
     * Finds all productions for a given nonterminal.
     * @param nonTerminal: String
     * @return The productions found: List<Production>
     */
    public List<Production> getProductionsForNonTerminal(String nonTerminal);
}

/**
 * Defines a set of productions for a nonterminal.
 */
public class Production {
    //nonterminal
    private String start;
    //list of productions
    private List<List<String>> rules;
```

```

Production(String start, List<List<String>> rules);
String getStart();
List<List<String>> getRules();

```

```

/**
 * Build all productions for a nonterminal as a string.
 * @return the result of the built: String
 */

```

```

public String toString();

```

```

}

```

