1. Create two priority queues, {**"George"**, **"Jim"**, **"John"**, **"Blake"**, **"Kevin"**, **"Michael"**} and {**"George"**, **"Katie"**, **"Kevin"**, **"Michelle"**, **"Ryan"**}, and find their union, difference, and intersection.

2. A Java program contains various pairs of grouping symbols, such as:
   - Parentheses: **(** and **)**
   - Braces: **{** and **}**
   - Brackets: **[** and **]**

   Note that the grouping symbols cannot overlap. For example, **(a{b)}** is illegal. Write a program to check whether a Java source-code file has correct pairs of grouping symbols.