The Venn diagram below refers to any general-purpose programming language, such as C, C++ or Java. It is generally easy to find examples of programs in sets (i), (ii) and (iv). However, in principle, not every language would yield examples in set (iii).

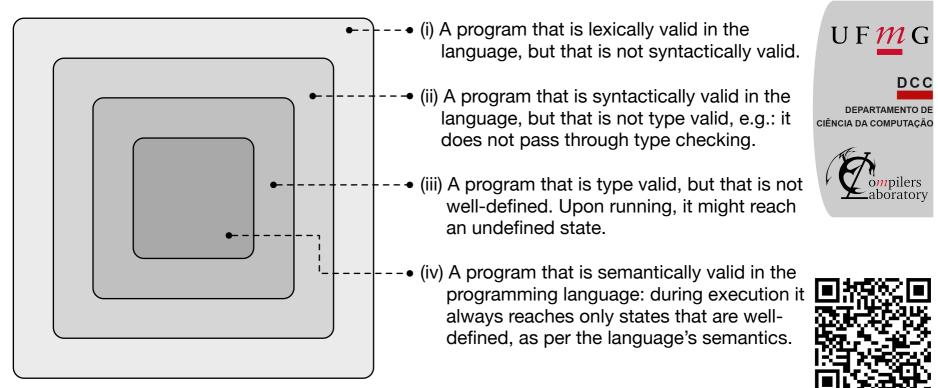


Figure 1: Classification of programs according to the different tests that they pass throughout the compilation process.

- 1. Can you give examples of C (or C++) programs in each one of the differents sets above?
- 2. Can you give examples of Java (or Python) programs in each one of those sets?
- 3. Why are there programs in set-iii? Are they there due to bugs in the language implementation, or are they there by design?