```java
abstract class NotNode extends CastToBooleanNode {

  @Specialization
  boolean doBool(boolean operand) {
    return !operand;
  }

  @Specialization
  boolean doInteger(int operand) {
    return operand == 0;
  }

  @Specialization
  boolean doBigInteger(BigInteger operand) {
    return operand.compareTo(BigInteger.ZERO) == 0;
  }

  @Specialization
  boolean doDouble(double operand) {
    return operand == 0;
  }

  @Specialization
  boolean doString(String operand) {
    return operand.length() == 0;
  }

  @Specialization
  boolean doPList(PList operand) {
    return operand.len() == 0;
  }

  @Fallback
  boolean doGeneric(PythonObject operand) {
    return !operand.__bool__();
  }
}
```