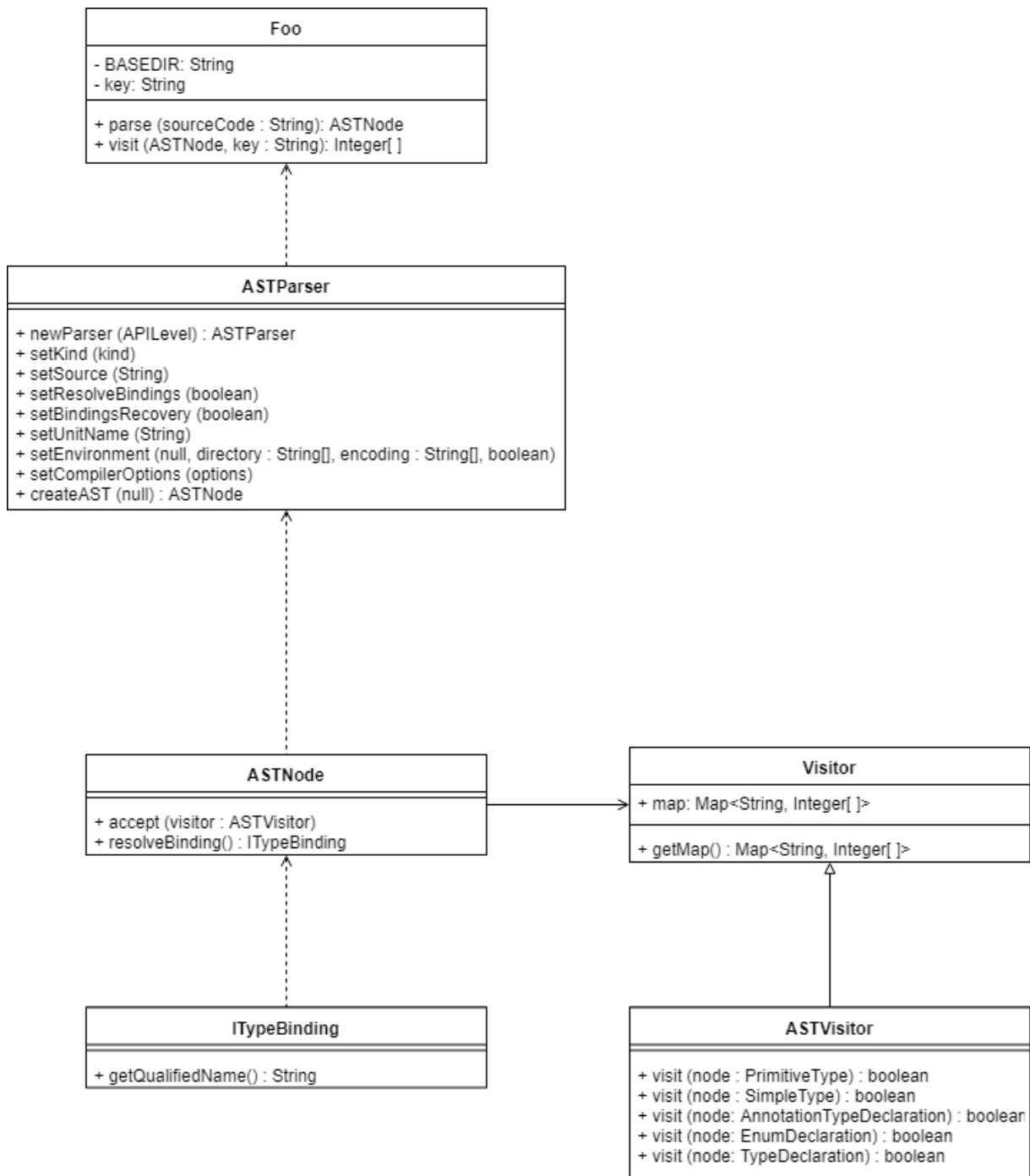
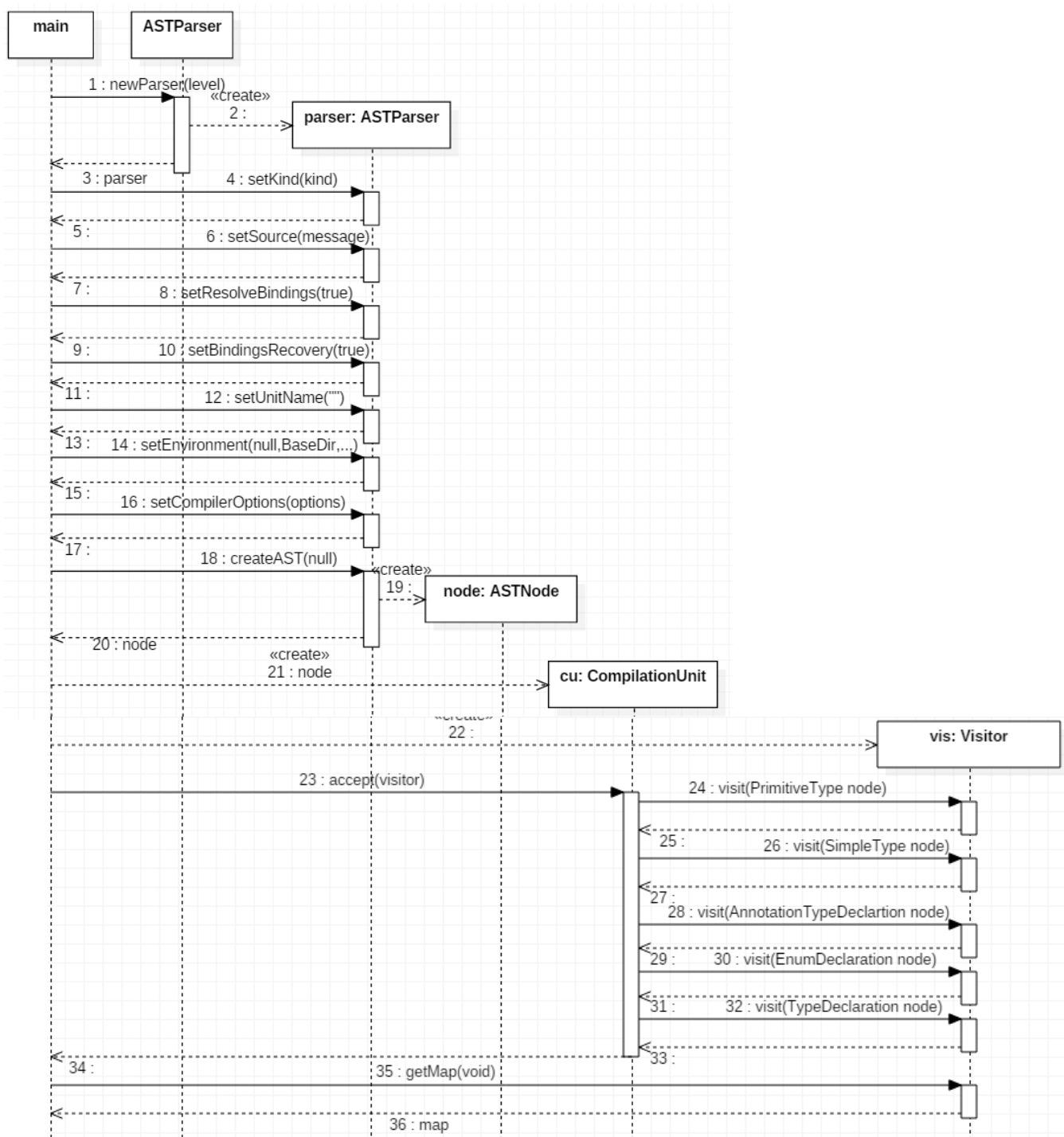
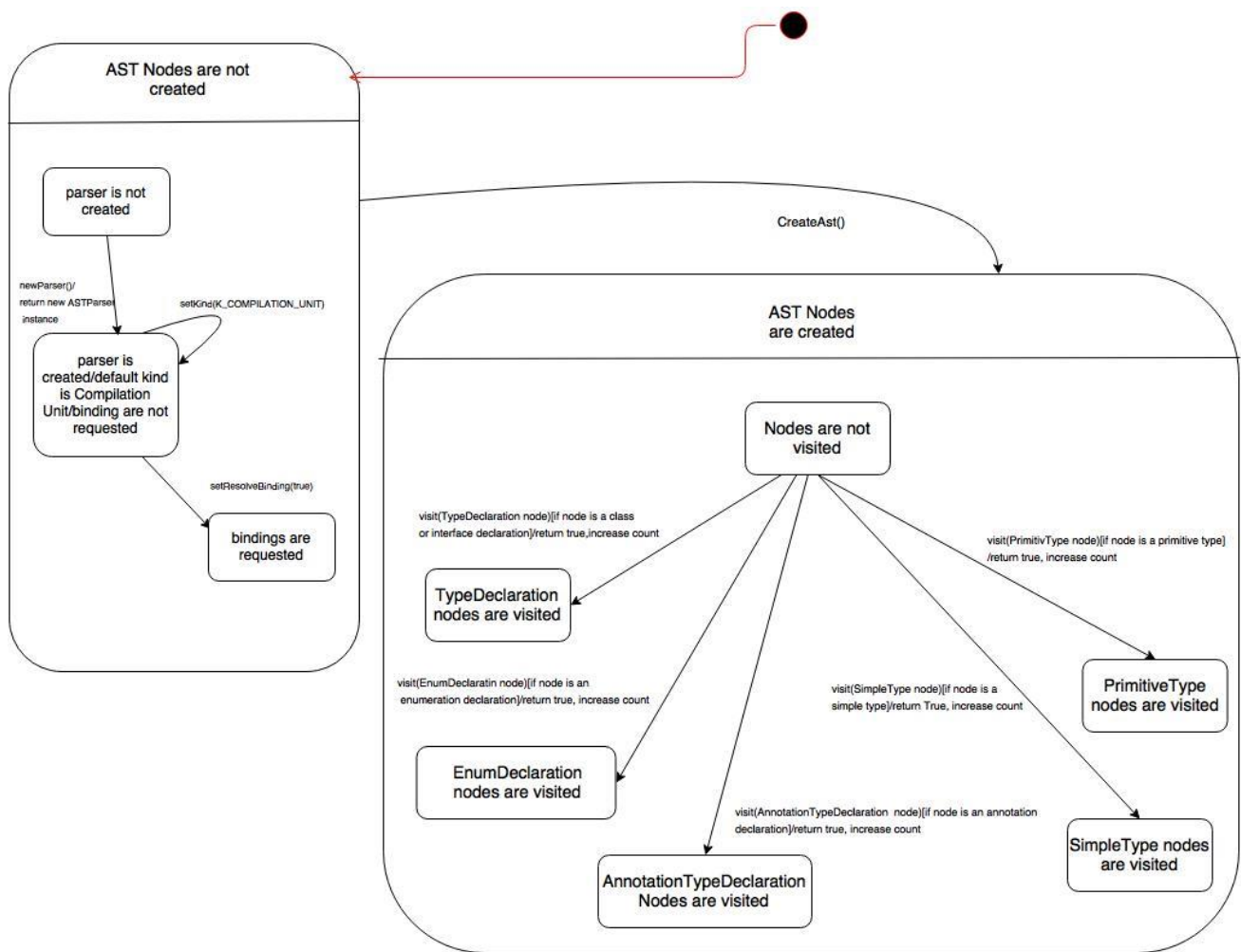


1. Structural Diagram







Explanation Notes:

- BASEDIR: is the directory of interest supplied by the user
- key: is the wanted type of interest supplied by the user
- APILevel : the wanted language api to parse – this is a int constant
- kind: is a constant int in the ASTParser on what kind of input is to be parsed
- setUnitName: has to be supplied for bindings to work – can be ""
- setEnvironment: null can be used as the first argument as the classpath does not matter
- options: is of type Map, but can also be left null for default options
- resolveBinding: is found in subclasses of ASTNode, but generalized here to be available to all nodes
- map: contains String – which is the qualified name type of interest
and Integer[] – which counts declarations and references
- visit: different visits are used to count declarations or references depending on type

State diagram:

There are two main states in the states diagram: "AST nodes are created" and "AST nodes are not created yet". The transition between two states are createAST() method. There's two states inside the state of "AST nodes are not created": "parser is not created" or "parser is created with default kind and no bindings are requested". Event "setResolveBinding(true)" change the state to "bindings are requested". After nodes get created, there are six states which one of them is "nodes are not visited" and the others are different types of node that are visited.