PPL Theory Assignment 2

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1. Explain different sources of Ambiguity.

➤ In computer science, an ambiguous grammar is a context-free grammar for which there exists a string that can have more than one leftmost derivation or parse tree.

- Lexical ambiguity : Words have multiple meanings.

- Syntactic ambiguity : A sentence has multiple parse trees.

- Semantic ambiguity : Even after the syntax and the meanings of the individual words have been resolved, there are two ways of reading the sentence.

- Anaphoric ambiguity : A phrase or word refers to something previously mentioned, but there is more than one possibility.

- Non-Literal Speech : Metaphors.

- Ellipsis : The omission of words that are needed for grammatical completion, and are "understood".

2. Explain the Attributes & Binding of a data object.

> A Data object represents a container for data values, a place where data values may be stored and later retrieved.

The Attributes & Binding of Data Objects are as follows:

1. Type : This associates the data object with the set of data values that the object may take.

2. Location : This associate the binding of a storage location in memory where the data object is represented. Only storage management routines can only change add data object in the virtual computer.

3. Value : This binding is usually the result of an assignment operation.

4. Name : The binding to one or more names by which the object maybe referenced during program execution is usually set up by declaration and modified by subprogram calls the returns.

5. Component : The binding of a data object to one or more data object of which it is a component is often represented by a pointer value. And may be modified by a change in pointer.