

# P4

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## 1 Symb

This class is used to store variables. The `kind` field is used to indicate the kind of declaration:

- `struct`
- `func`
- `var`

## 2 FnSymb

This class is used to store functions. The `formals` field is used to store the function's parameters. The `toString` method reveals the type of this function.

### 3 StructSymb

This class is used to store the definitions of `struct`. It stores the fields that the `struct`. The `containsField` method can be used to check if an `id` is of this struct or not.

### 4 ASTnode

- A various of static methods have been declared in this class for displaying the `ErrMsg`.
- A `analyze` method has been added to each subclass of `ASTnode`. The symbol table `table` is passed along the ast to achieve the name analysis.

### 5 ErrMsg

The field `TRIGGERED` is set to true if and only if the `fatal` method has been called. This `TRIGGERED` is checked in P4 after name analyzing phase to decide if `unparse` should be called or not.