

# P4

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## Contents

1	Symb	1
2	FnSymb	1
3	StructSymb	2
4	ASTnode	2
5	ErrMsg	2

## 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.