

HAWK



HTML IS ALL WE KNOW

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OVERVIEW

- **Imperative Language**
- **Pattern-action structure based on AWK**
- **Handles CSS selectors and Regex for patterns**
- **Full type inference**

TUTORIAL

- **Compile source code: make**
- **To run tests: make test**
- **Write HAWK: *.hk**
- **To Compile a Program: ./prog <program-name> >
Program.java**
- **To Run a Program: javac Program.java && java -cp ./
_hawk_lib/jsoup.jar: Program <args>**

DEMO

- **Demo 1: Find all prime numbers in a document**
- **Demo 2: Find the average number of upvotes on the front page of Reddit**
- **Demo 3: Get the weather**
- **Demo 4: Line counter; 4500 total lines of code**
- **Demo 5: Nasty Type Inference**

DEMO 5

```
BEGIN{
```

```
    fun getSingletonTable(x){  
        return {x};  
    }
```

```
    fun modifyTable(t){  
        t[0] = getSingletonTable(42);  
    }
```

```
    table = {};  
    table[0] = {};  
    nestedTable = table[0];
```

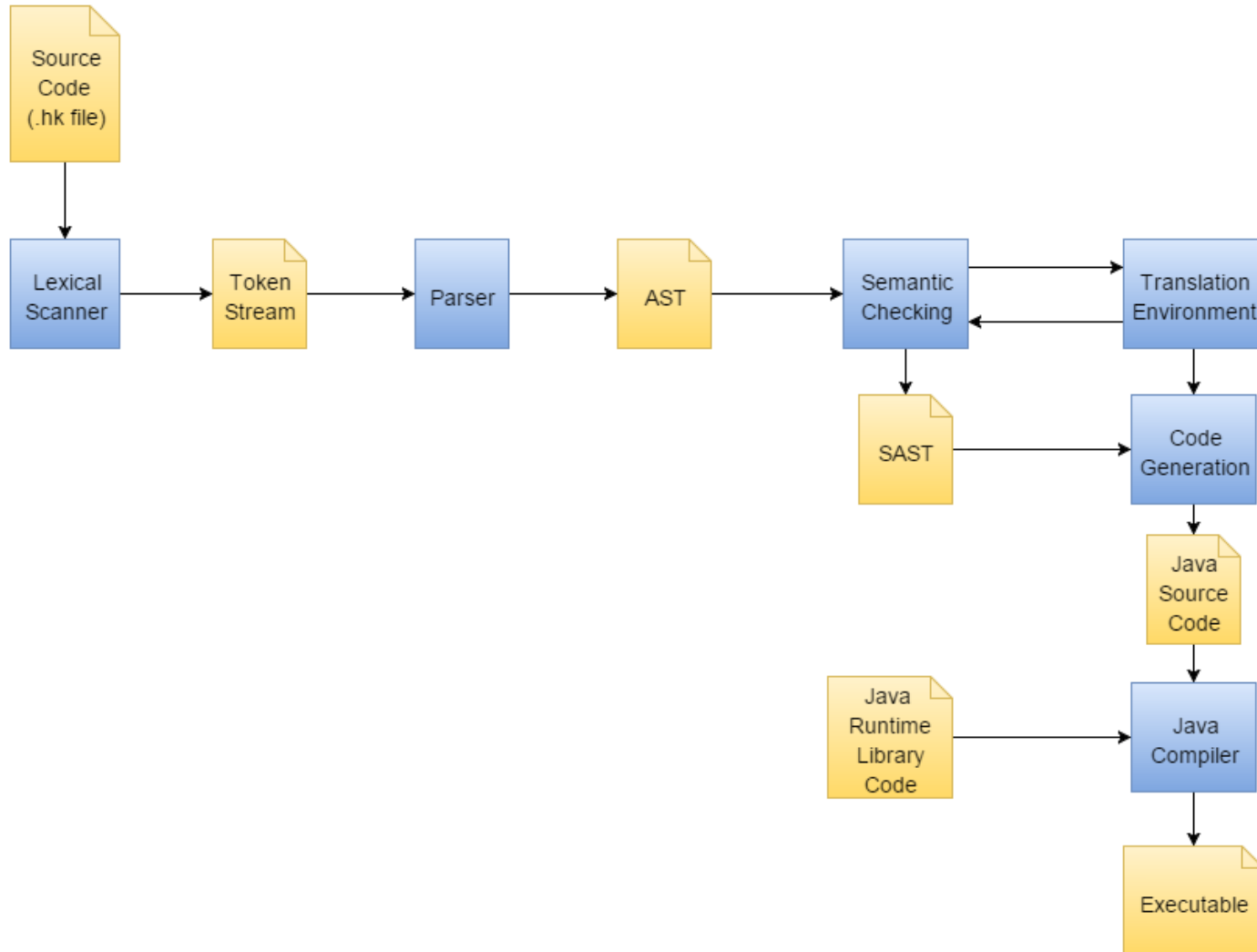
```
    modifyTable(nestedTable);
```

```
    nestedNestedTable = table[0][0];  
    value = nestedNestedTable[0];  
    print(value);
```

```
}
```

```
END{
```

LANGUAGE IMPLEMENTATION



LESSONS LEARNED

- **Start early!**
- **Know OCaml**
- **Weekly group work sessions increase productivity**
- **Don't commit broken code**
- **Know your LRM and set reasonable goals**