

CS 686 - Final Project Chronicle Tree

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Idea

$$D = 10$$

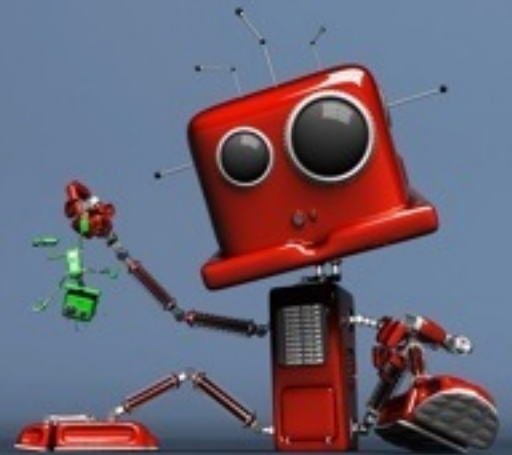
$$E = 5$$

$$F = 0$$

$$B = D + E$$

$$C = E$$

$$A = B + C$$

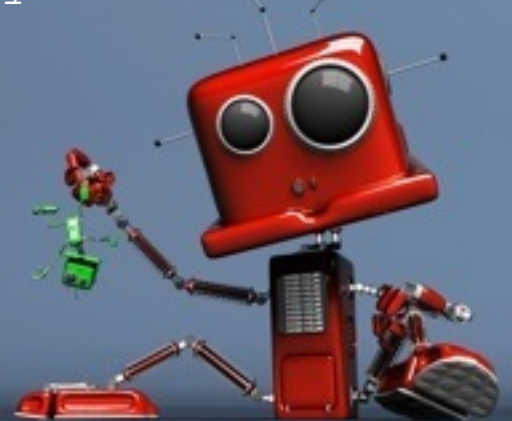


State Saving

- Stackless python
- Full State after each event.
- Sqlite3 database.

- Syntax

```
python ../src/sa.py record <state file> <python code>
```



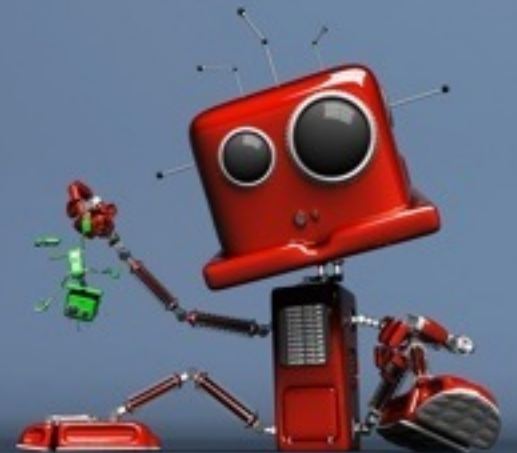
Design

- Syntax

```
spython ../src/sa.py history <state file> <object> <StateNo>
```

- Analysis:

- Where object was created.
- Where value was changed.
- Get Bytecode of Creation/Modification location.
- Get Constants.
- Get Objects.
- Get history of Objects.
- Link the object history to the object.



Design 2

- Draw:

Object list :

(State number, Object name, Object value, line of code)

|_____(key)_____|

Relation list:

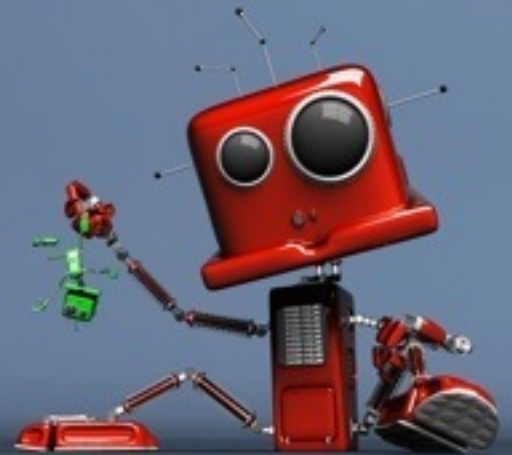
Many-to-Many relationship

(Object 1 name, Object 1 state number, Object 2 name, Object 2 state number)



Design 3:

Map Keys:



Example

```
#python sample
```

```
One = 1
```

```
Two = 2
```

```
Three = One + Two
```

```
Four = Three + One
```

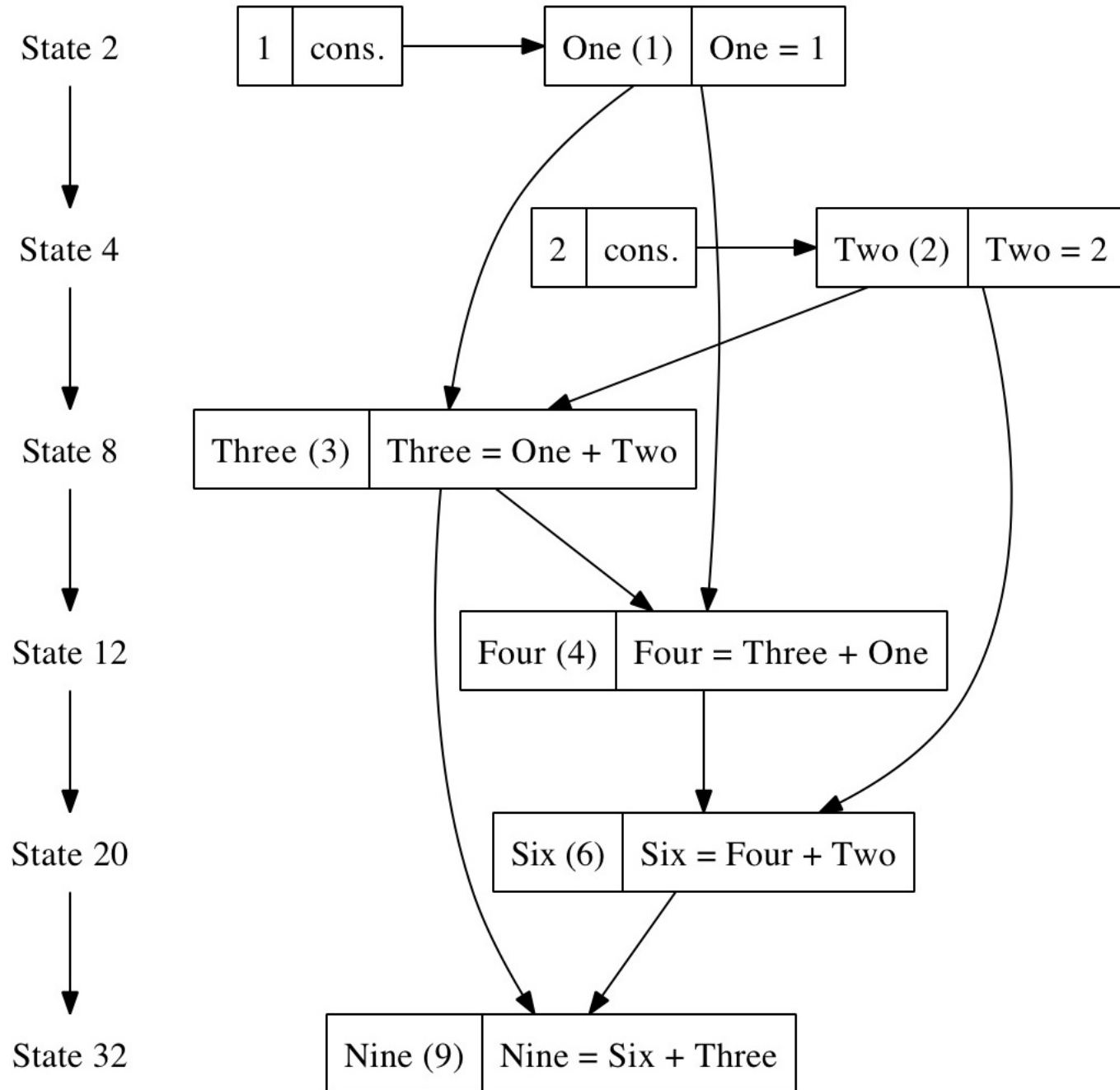
```
Five = Four + One
```

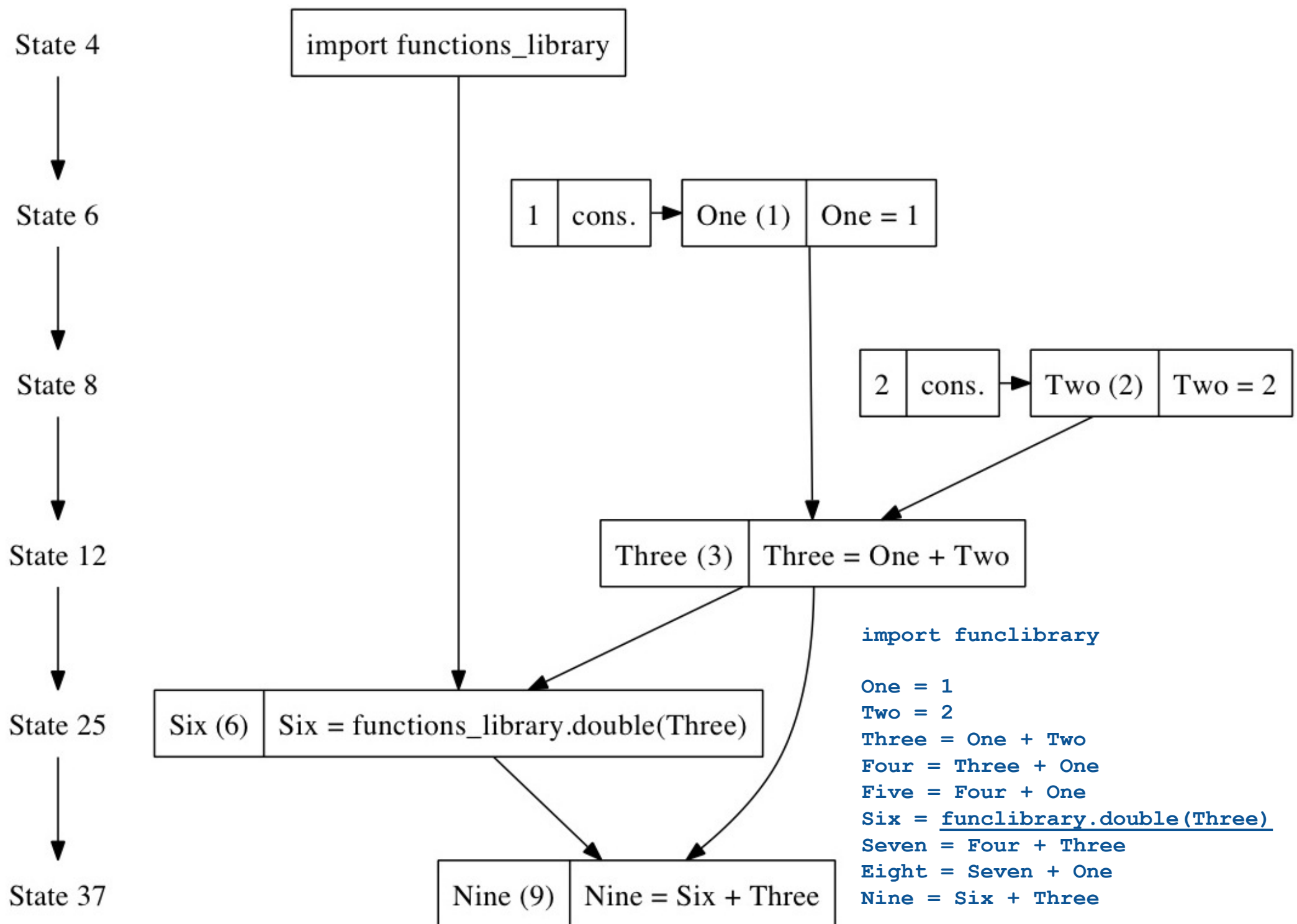
```
Six = Four + Two
```

```
Seven = Four + Three
```

```
Eight = Seven + One
```

```
Nine = Six + Three
```





Thank you

Q & A

