LifePlanner

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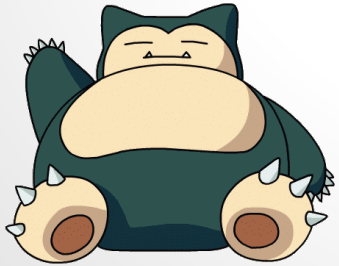

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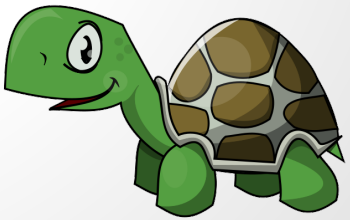

Tester:
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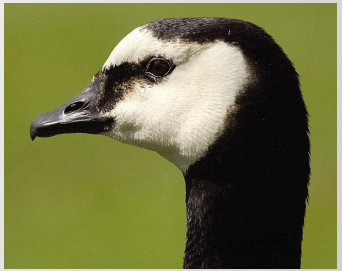
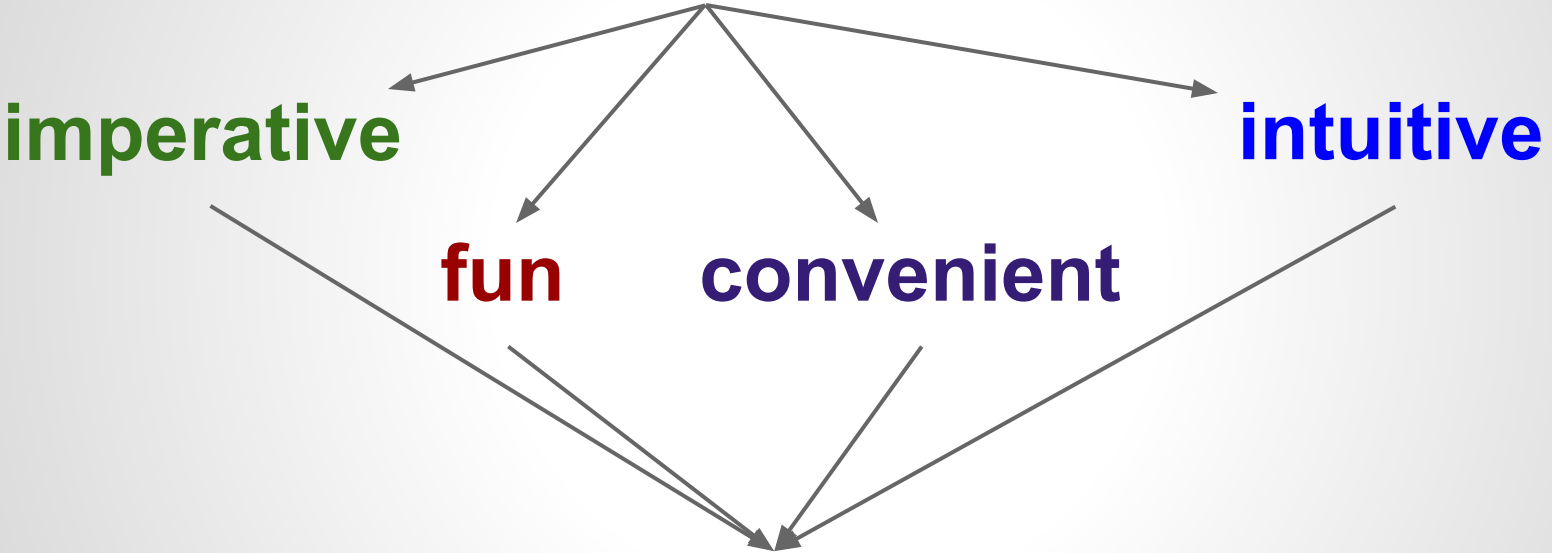


Life is overwhelming.

LifePlanner is...



LIFE CHANGING!

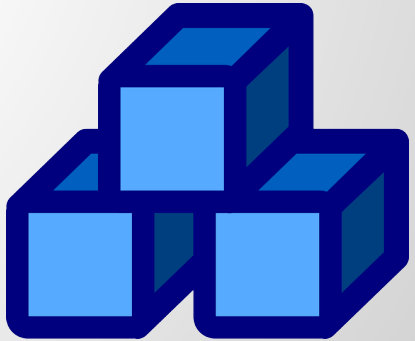
Time to plan your life!

1. Function blocks (opt) :) repeated functions
2. Import (opt) :) import *.ics* file
3. Schedule (opt) :) add events
4. “`build schedule`” :) indicates end of schedule
5. Code to modify schedule (opt) :) update your schedule
6. Export (opt) :) export *.ics* file

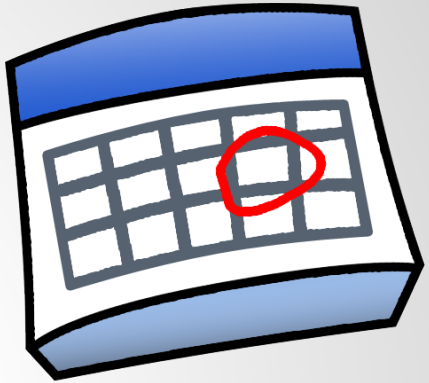
Function Blocks

Function blocks are optional and are meant for more experienced programmers

```
function func_name(param1, param2)
   :) comments!
   :) expressions
   return “value”
```



Import Statements



Import your previous *.ics* files

.ics files are used by Google Calendar, Apple's iCal, WordPress (via plugins), etc

```
import myCal.ics
```

Schedule

Add events to your schedule

Date:

event name from time to time (at location with people)

```
5/13/2015:
   PLT presentation from 11:30 AM to 12:00 PM
```

“build schedule”

key words

Indicates that you are done with your schedule and ready to start modifying it!

Code to Modify Schedule

some common expressions

1. `plan 5/12/2015: Free Cone Day from 4:00 PM to 8:00 PM at Häagen-Dazs`
2.
```
for i = 0, i < 3, i = i + 1
    :) some stuff
end
```
3.
```
if True
    time = time + 2 hours
    funcName(param1, param2)
end
```

```
:) Special key words for adding/deleting events
:) as well as modifying the event properties

:) loops: for and while
:) assignment, boolean expression
:) comments!

:) if statements
:) booleans
:) math operations with times
:) function call!
```

AND MORE!!

Export Statement

Export your newly edited schedule!

```
export newCal.ics
```

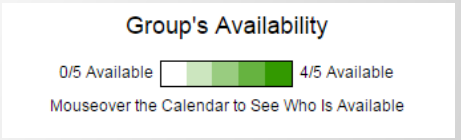
Still in *.ics* format so you can use your application to open it again!

Demo!

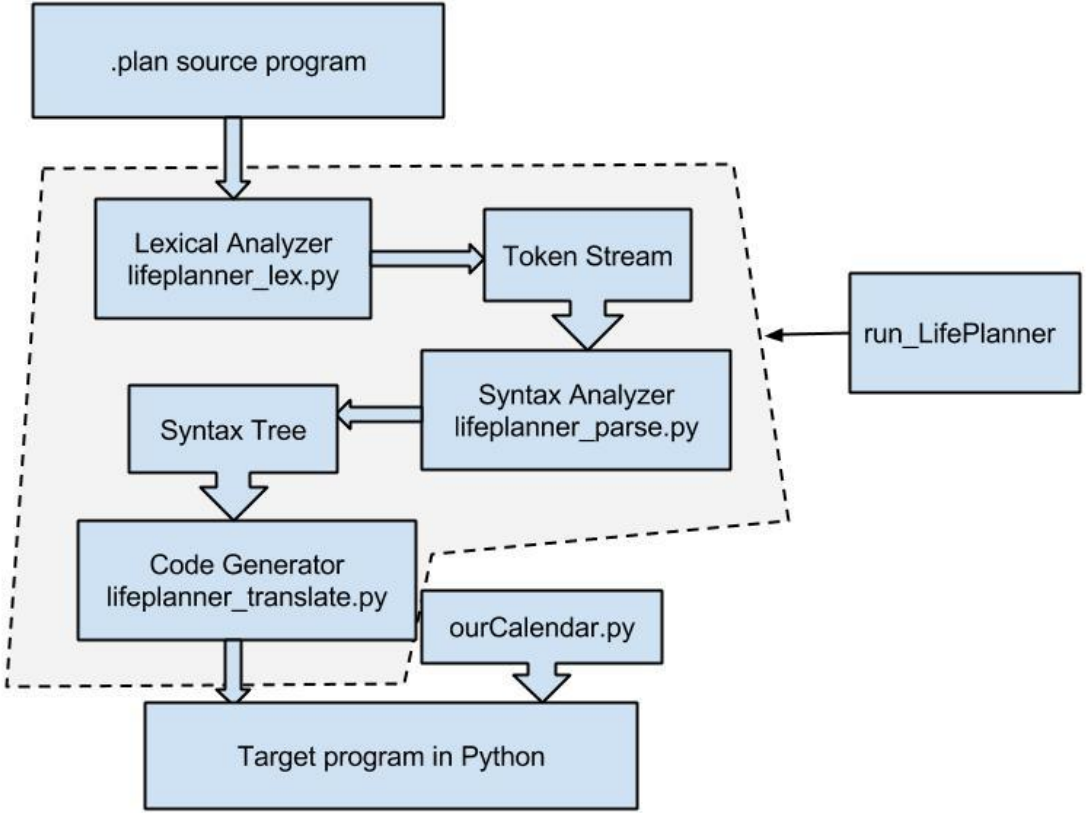
Project Management

Google Drive

GitHub



Translator Architecture

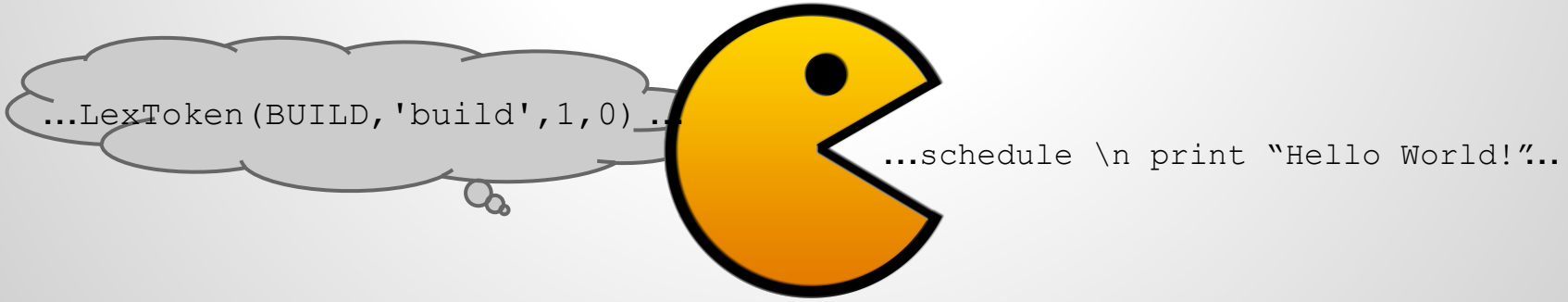


HelloWorld.plan

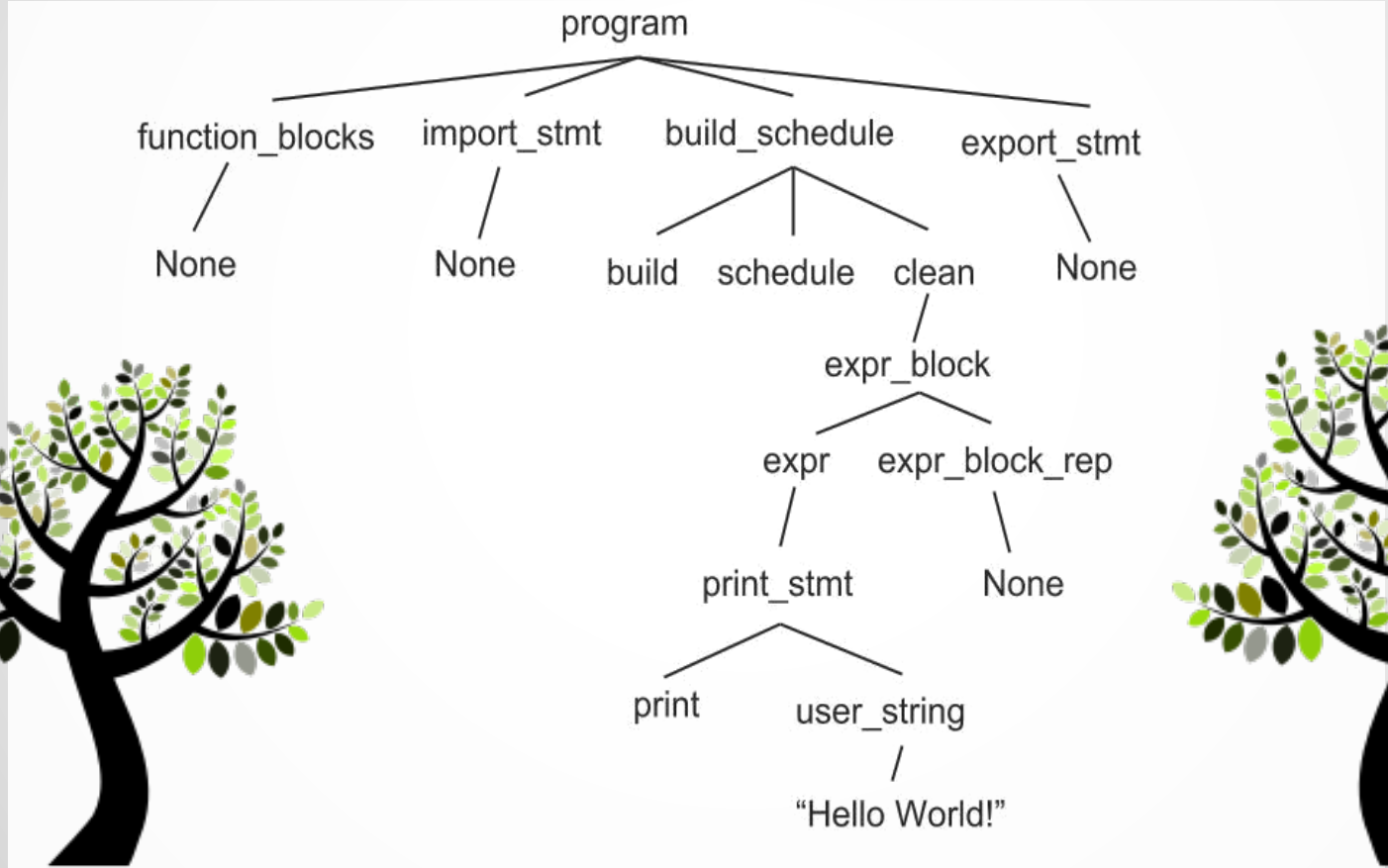
```
build schedule
   print "Hello World!"
```

The Tokens

```
LexToken(BUILD,'build',1,0)
LexToken(SCHEDULE,'schedule',1,6)
LexToken(NEWLINE,'\n',1,14)
LexToken(PRINT,'print',2,16)
LexToken(USERSTRING,'"Hello World!"',2,22)
```



The Syntax Tree



The Translated Python Code

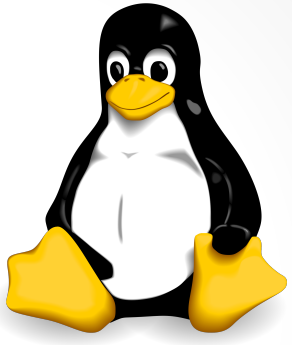
```
import datetime as dt
import time
import event as e
import ourCalendar as c


def get_event(name,
var_all_events):
    for event in var_all_events:
        if event['event_title'] ==
name:
            return event
cal = c.ourCalendar()
```

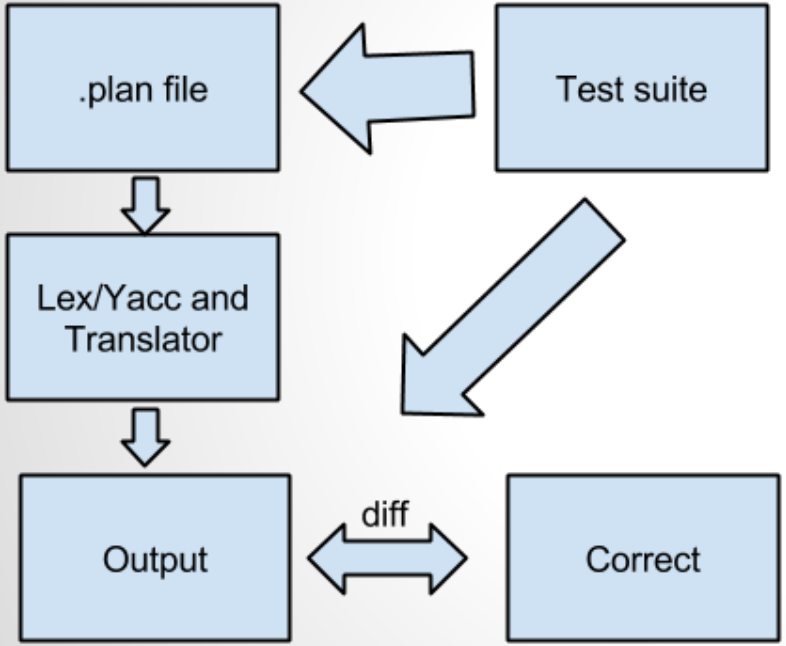
```
var_all_events = []
printed = False
str_print_item = "Hello World!"
for elem in var_all_events:
    if elem["event_title"] ==
str_print_item:
        elem.pop('uid', None)
        print elem
        printed = True


if not printed:
    print "Hello World!"
```

Runtime & Development Environment



Test Suite



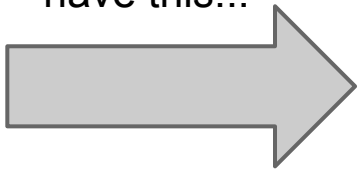
- We wrote our own test suite in Python
- Used `filecmp` to compare outputs and wrote a function to compare *.ics* files
- Integration: made sure past tests worked with every new feature

Sample Test Programs

Testing `export` of *.ics* files:

```
12/01/2016:
    PLT from 2:40 PM to 3:55
PM at Mudd with Aho
build schedule
export test26.ics
```

Once we have this...



Testing `import` of *.ics* files:

```
import my.ics
build schedule
export test27.ics
```

9
10
11
12
WHAT HAVE YOU
LEARNED?

Lessons Learned

- Boyu: Communicate, communicate, communicate
- Katie: Meet frequently
- Rachel: Meet with Professor and TA mentor more often
- Rona: Should have made separate branches on GitHub
- Sean: Great team members make a huge difference!

Another demo!

LIFE.

Get good at it.