

Introduction to Python

Feature Summary, Session 9

FUNCTIONS

- **def** statement: ***define a function***

```
def greet():  
    print('hi!')
```
- define a function with arguments

```
def greet(name):  
    print('hi ' + name)
```
- define a function with return values

```
import random as rd  
def get_rand():  
    x = rd.randint(1,10)  
    return x
```
- define a function with arguments and return values

```
def addthese(a, b):  
    c = a + b  
    return c
```
- define a function with keyword arguments

```
def mul(a, b=1):  
    return a * b
```

MODULES

- **import**: ***import a module***

```
import sys  
args = sys.argv
```
- **import as**: ***import a module under a different name***

```
import pandas as pd  
df = pd.read_csv('a.csv')
```
- **from** statement: ***import individual variables from a module***

```
from sys import argv
```
- **PYTHONPATH** environment variable: ***set module search path or path is a dir or a file***

```
export PYTHONPATH='mylib/'  
# this is shell/os command
```
- **raise** statement: ***raise an exception***

```
if not test:      # any test  
    raise ValueError('oops')
```

EXCEPTION HANDLING

- **try/except**: handle specified exception and run routine

```
try:  
    arg = sys.argv[1]  
except IndexError:  
    exit('enter an arg')
```

```
raise IndexError('oops')
```
- **raise**: raise an exception
this generates the same error condition as that generated by Python