boto Cheat Sheet

S3

Basic Modules to import

```
from boto.s3.connection import S3Connection
from boto.s3.key import Key
import boto
```

Basic Operations

Connecting:

```
c = S3Connection('<AWS_KEY_ID>', '<AWS_SECRET_KEY>' [,region,...])
c = boto.connect_s3()
```

Creating a bucket:

```
c.create_bucket('<bucket-name>')
```

Getting a bucket:

```
b = c.get_bucket('<bucket-name>')
```

Deleting a bucket:

```
c.delete_bucket(b)
```

Getting a bucket object:

```
k = Key(b)
k.key = 'object-name'
```

Downloading said object to file:

```
k.get_contents_to_filename('<filename>')
```

Downloading string data:

```
k.get_contents_as_string()
```

Creating a new object key:

```
k = b.new_key('<key-name>')
```

Uploading file to bucket:

```
k.key = 'object-name'
k.set_contents_from_filename(<path_to_file>)
```

Uploading from string:

```
k.set_contents_from_string('<string>')
```

Other Operations:

Setting Access Controls (bucket-wide):

```
b.set_acl('public-read')
# or any of 'private','public-read-write','authenticated-read'
```

Object-specfic Access Control:

```
b.set_acl('private', 'confidential.txt')
```

Setting Object Metadata:

```
k.set_metadata('meta1', 'This is the first metadata value')
k.set_metadata('meta2', 'This is the second metadata value')
```

Getting Object Metadata:

```
k.get_metadata('meta1')
'This is the first metadata value'
```

SQS

Basic Imports:

```
from boto.sqs.connection    import SQSConnection
from boto.sqs.message       import Message
import boto
```

Basic Operations:

Connecting:

```
c = SQSConnection(AWS_KEY_ID, AWS_SECRET_KEY[, region])
c = boto.connect_sqs()
```

Creating a queue:

```
q = c.create_queue('<que_name>'[,visibility_timeout])
```

Listing all queues in region:

```
qs = c.get_all_queues([prefix='<prefix>'])
```

Getting a specific queue:

```
q = c.get_queue('<queue_name>')
```

Writing messages:

```
m = Message()
m.set_body('<body_text>')
res = q.write(m)
```

Reading Messages:

```
rs = q.get_messages([num_messages,...])
mbody = rs[0].get_body()
```

Deleting Messages:

```
q.delete_message(m)
```

Emptying a queue:

```
q.clear() #use carefully
```

Deleting (Empty) queues:

```
c.delete_queue(q)
```

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EC2

Basic Imports:

```
from boto.ec2.connection import EC2Connection
import boto
```

Basic Opertations:

Connecting:

```
c = EC2Connection('<AWS_KEY_ID>', '<AWS_SECRET_KEY>'[, region])
c = boto.connect_ec2()
```

Getting all reservations within a region:

```
rsv = c.get_all_instances([instance_ids,...])
```

Get all instances within reservations:

```
for r in rsv:
   ins = r.instances
```

Get specific instance (with known id):

```
ins = c.get_all_instances(instance_ids=['<instance_id>'])[0]
```

Launching Isntaces:

```
c.run_instances('<ami-image-id>'[,key_name, instance_type, ...])
```

Stopping Instances:

```
c.stop_instances([instance_ids, force])
```

Terminating Instances:

```
c.terminate_instances([instance_ids])
```

Instance Operations:

Starting an instance:

```
ins.start()
```

Stopping an instance:

```
ins.stop()
```

Rebooting an instance:

```
ins.reboot()
```

Terminating an instance:

```
ins.terminate()
```

Getting instance attributes:

```
ins.get_attribute('<attribute>')['<attribute>']
```

Setting instance attributes:

```
ins.modify_attribute('<attr_name>', <attr_value>)
# Valid attribute names: instanceType|kernel|ramdisk|userData|
# disableApiTermination|instanceInitiatedShutdownBehavior|
# rootDeviceName|blockDeviceMapping|sourceDestCheck
```

DynamoDB

Basic Imports:

```
import boto
```

Basic Operations:

Connecting:

```
c = boto.connect_dynamodb('<YOUR_AWS_KEY_ID>','<YOUR_AWS_SECRET_KEY>'
     [, region, ...])
c = boto.connect_dynamodb()
```

Creating table schemata:

```
sch = c.create_schema('<hash_key_name>','<hash_key_proto_value>'
[, '<range_key_name>','<range_key_proto_value>'])
```

Creating a table:

```
t = c.create_table('<name>',<schema>,<read_units>,<write_units>)
```

Listing all tables in region:

```
l = c.list_tables()
```

Getting a specific table:

```
t = c.get_table('<table_name>')
```

Describing tables:

```
c.describe_table('<table_name>')
```

Deleting tables:

```
t.delete() #nukes table and items within, use carefully.
```

Item Operations:

Adding items:

```
data = {'field_name': <value>, 'another_field':'another value'}
item = t.new_item(hash_key_name=<value>, attrs=<data>
       [, range_key=<value>])
item.put() #item is not commited until this is executed
```

Retrieving items:

```
it = t.get_item(hash_key=<value> [, range_key=<value>])
```

Updating items:

```
it['field_name'] = <new_value>
it.put()
```

Deleting items:

```
it.delete()
```