Image#0: Search Resources

Return list of sites in JSON

Search.py		SiteManager		<<Abstract>> Resource

getSite()

setAvailableAmount()

getAvailableAmount()

CPU

Memory

:

reservation_id	user_id	title	description	start	end	reference_number	image_type
3	1	reservation1	description..	2017-02-24 09:00:00	2017-02-25 02:00:00	ABCDEFG	centOS7

Image#1: Table "reservation"

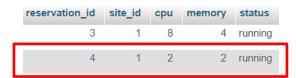| reservation_id	site_id	cpu	memory	status
3	1	8	4	running

Image#2: Table "site_reserved"

site_id	start ▲ 1	end	cpu	memory
1	2017-02-24 09:00:00	2017-02-24 10:00:00	8	4
1	2017-02-24 10:00:00	2017-02-24 11:00:00	8	4
1	2017-02-24 11:00:00	2017-02-24 12:00:00	8	4
1	2017-02-24 12:00:00	2017-02-24 13:00:00	8	4
1	2017-02-24 13:00:00	2017-02-24 14:00:00	8	4
1	2017-02-24 14:00:00	2017-02-24 15:00:00	8	4
1	2017-02-24 15:00:00	2017-02-24 16:00:00	8	4
1	2017-02-24 16:00:00	2017-02-24 17:00:00	8	4
1	2017-02-24 17:00:00	2017-02-24 18:00:00	8	4
1	2017-02-24 18:00:00	2017-02-24 19:00:00	8	4
1	2017-02-24 19:00:00	2017-02-24 20:00:00	8	4
1	2017-02-24 20:00:00	2017-02-24 21:00:00	8	4
1	2017-02-24 21:00:00	2017-02-24 22:00:00	8	4
1	2017-02-24 22:00:00	2017-02-24 23:00:00	8	4
1	2017-02-24 23:00:00	2017-02-25 00:00:00	8	4
1	2017-02-25 00:00:00	2017-02-25 01:00:00	8	4
1	2017-02-25 01:00:00	2017-02-25 02:00:00	8	4

Image#3: Table "schedule"

reservation_id	user_id	title	description	start	end	reference_number	image_type
3	1	reservation1	description..	2017-02-24 09:00:00	2017-02-25 02:00:00	ABCDEFG	centOS7
4	1	reservation2	desc	2017-02-24 09:00:00	2017-02-24 13:00:00	JHKIJHS	centOS7

Image#4: Table "reservation"

reservation_id	site_id	cpu	memory	status
3	1	8	4	running
4	1	2	2	running

Image#5: Table "site_reserved"

	site_id	start	end	cpu	memory
record#1 →	1	2017-02-24 09:00:00	2017-02-24 10:00:00	10	6
record#2 →	1	2017-02-24 10:00:00	2017-02-24 11:00:00	10	6
record#3 →	1	2017-02-24 11:00:00	2017-02-24 12:00:00	10	6
record#4 →	1	2017-02-24 12:00:00	2017-02-24 13:00:00	10	6
record#5 →	1	2017-02-24 13:00:00	2017-02-24 14:00:00	8	4
	1	2017-02-24 14:00:00	2017-02-24 15:00:00	8	4
	1	2017-02-24 15:00:00	2017-02-24 16:00:00	8	4
	1	2017-02-24 16:00:00	2017-02-24 17:00:00	8	4
	1	2017-02-24 17:00:00	2017-02-24 18:00:00	8	4
	1	2017-02-24 18:00:00	2017-02-24 19:00:00	8	4
	1	2017-02-24 19:00:00	2017-02-24 20:00:00	8	4
	1	2017-02-24 20:00:00	2017-02-24 21:00:00	8	4
	1	2017-02-24 21:00:00	2017-02-24 22:00:00	8	4
	1	2017-02-24 22:00:00	2017-02-24 23:00:00	8	4
	1	2017-02-24 23:00:00	2017-02-25 00:00:00	8	4
	1	2017-02-25 00:00:00	2017-02-25 01:00:00	8	4
	1	2017-02-25 01:00:00	2017-02-25 02:00:00	8	4

Image#6: Table "schedule"

site_id	name	description	total_cpu	total_memory
1	NCHC cloud	Rocks. Hosting virtual clusters and virtual machin...	16	32
2	AIST Cloud	Cloudstack. Hosting Virtual clusters and virtual m...	32	64
3	ABCD cloud	Rocks. Hosting virtual clusters and virtual machin...	128	32
4	A1 cloud	Rocks. Hosting virtual clusters and virtual machin...	64	64
5	TU cloud	Rocks. Hosting virtual clusters and virtual machin...	64	32

Image#7: Table "site"

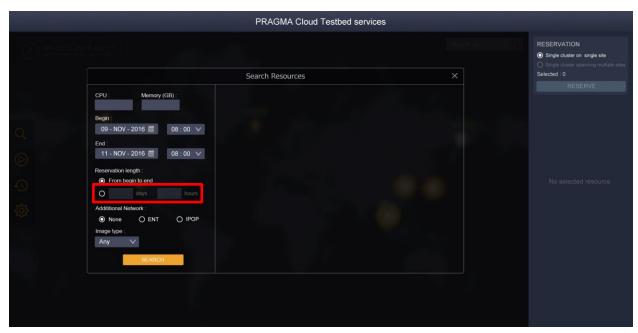Available amount of CPU = total CPU – maximum amount of reserved CPU = 16-10 = 6

Available amount of Memory = total Memory – maximum amount of reserved Memory = 32-6 = 26

URL to get result from search function:

http://lima-vc-1.sdsc.optiputer.net/project/scripts/Search.py

```
17 ###variable from front-end###
18 CPU = 2
19 MEMORY = 2
20 CONNECTION_TYPE = None
21 IMAGE_TYPE = 'Any'
22 BEGIN = '2017-02-24 09:00:00'
23 END = '2017-02-24 10:00:00'
24 ###########################
```

→

```
"CPU": {
    "total": "16",
    "available": "6"
},
"memory": {
    "total": "32",
    "available": "26"
}
```

Image#8: criteria and result

```
17 ###variable from front-end###
18 CPU = 2
19 MEMORY = 2
20 CONNECTION_TYPE = None
21 IMAGE_TYPE = 'Any'
22 BEGIN = '2017-02-26 09:00:00'
23 END = '2017-02-28 10:00:00'
24 ###########################
```

→

```
"CPU": {
    "total": "16",
    "available": "16"
},
"memory": {
    "total": "32",
    "available": "32"
}
```

Image#9: criteria and result

Image#10: Search Resources