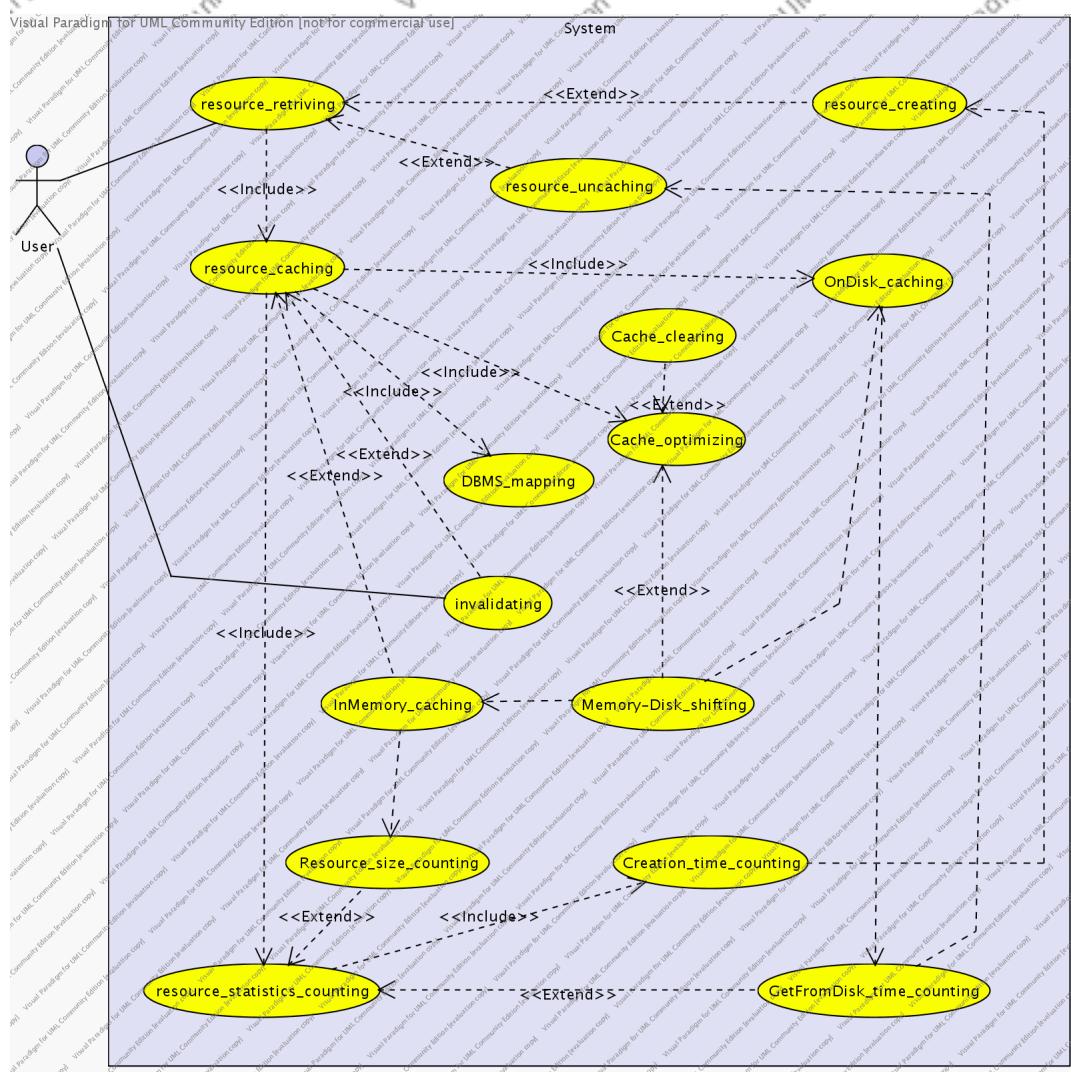


## Use Case Scheduling

Rank	Use Case Name	Justification
Unspecified	<a href="#">resource_retriving</a>	
Unspecified	<a href="#">resource_creating</a>	
Unspecified	<a href="#">resource_uncaching</a>	
Unspecified	<a href="#">resource_caching</a>	
Unspecified	<a href="#">OnDisk_caching</a>	
Unspecified	<a href="#">InMemory_caching</a>	
Unspecified	<a href="#">resource_statistics_counting</a>	
Unspecified	<a href="#">Creation_time_counting</a>	
Unspecified	<a href="#">GetFromDisk_time_counting</a>	
Unspecified	<a href="#">Resource_size_counting</a>	
Unspecified	<a href="#">Memory-Disk_shifting</a>	
Unspecified	<a href="#">Cache_clearing</a>	
Unspecified	<a href="#">DBMS_mapping</a>	
Unspecified	<a href="#">Cache_optimizing</a>	
Unspecified	<a href="#">invalidating</a>	

## ResourcePocket - Java caching library

### Requirements



### Diagram Content Summary

- █ [System](#)
- █ [resource\\_retriving](#)
- █ [resource\\_creating](#)
- █ [resource\\_uncaching](#)
- █ [resource\\_caching](#)
- █ [OnDisk\\_caching](#)

## ResourcePocket - Java caching library

- [InMemory\\_caching](#)
- [resource\\_statistics\\_counting](#)
- [Creation\\_time\\_counting](#)
- [GetFromDisk\\_time\\_counting](#)
- [Resource\\_size\\_counting](#)
- [Memory-Disk\\_shifting](#)
- [Cache\\_clearing](#)
- [DBMS\\_mapping](#)
- [Cache\\_optimizing](#)
- [invalidating](#)
- [User](#)

### Diagram Content Detail

#### UseCase resource\_retriving

**Parent:** [System](#)

**Include:**

[resource\\_caching](#)

**Extended by:**

[resource\\_creating](#),  
[resource\\_uncaching](#)

**Extension Point**

**Name :** ExtensionPoint

**Name :** ExtensionPoint

**Communication Link** [communicationlink](#) to [User](#)

**Sub-diagrams**

[ResourceRetrieval](#)

#### UseCase resource\_creating

##### Use Case Extends Hierarchy

resource\_retriving  
/---+resource\_creating

**Parent :** [System](#)

**Extend from**

## ResourcePocket - Java caching library

[resource\\_retriving](#)

**Depended by:**

[Creation\\_time\\_counting](#)

### UseCase resource\_uncaching

#### Use Case Extends Hierarchy

[resource\\_retriving](#)

|

+--resource\_uncaching

**Parent :** [System](#)

**Extend from**

[resource\\_retriving](#)

**Depended by:**

[GetFromDisk\\_time\\_counting](#)

### UseCase resource\_caching

**Parent :** [System](#)

**Include:**

[OnDisk\\_caching](#), [resource\\_statistics\\_counting](#), [DBMS\\_mapping](#), [Cache\\_optimizing](#)

**Include by:**

[resource\\_retriving](#)

**Extended by**

[InMemory\\_caching](#),

[invalidating](#)

**Extension Point**

**Name :** ExtensionPoint

**Name :** ExtensionPoint

### UseCase OnDisk\_caching

**Parent :** [System](#)

**Include by:**

[resource\\_caching](#)

## ResourcePocket - Java caching library

**Depend to:**

[GetFromDisk\\_time\\_counting](#)

**Depended by:**

[Memory-Disk\\_shifting](#)

### UseCase InMemory\_caching

**Use Case Extends Hierarchy**

resource\_caching

|

+InMemory\_caching

**Parent :** [System](#)

**Extend from**

[resource\\_caching](#)

**Depend to:**

[Resource\\_size\\_counting](#)

**Depended by:**

[Memory-Disk\\_shifting](#)

### UseCase resource\_statistics\_counting

**Parent :** [System](#)

**Include:**

[Creation\\_time\\_counting](#)

**Include by:**

[resource\\_caching](#)

**Extended by**

[GetFromDisk\\_time\\_counting](#),

[Resource\\_size\\_counting](#)

**Extension Point**

**Name :** ExtensionPoint

**Name :** ExtensionPoint

### UseCase Creation\_time\_counting

## ResourcePocket - Java caching library

**Parent :** [System](#)

**Include by:**

[resource\\_statistics\\_counting](#)

**Depend to:**

[resource\\_creating](#)

### **UseCase** GetFromDisk\_time\_counting

#### **Use Case Extends Hierarchy**

[resource\\_statistics\\_counting](#)

|

+--GetFromDisk\_time\_counting

**Parent :** [System](#)

**Extend from**

[resource\\_statistics\\_counting](#)

**Depend to:**

[resource\\_uncaching](#)

**Depended by:**

[OnDisk\\_caching](#)

### **UseCase** Resource\_size\_counting

#### **Use Case Extends Hierarchy**

[resource\\_statistics\\_counting](#)

|

+--Resource\_size\_counting

**Parent :** [System](#)

**Extend from**

[resource\\_statistics\\_counting](#)

**Depended by:**

[InMemory\\_caching](#)

### **UseCase** Memory-Disk\_shifting

#### **Use Case Extends Hierarchy**

## ResourcePocket - Java caching library

Cache\_optimizing

|

+--Memory-Disk\_shifting

**Parent :** [System](#)

**Extend from**

[Cache\\_optimizing](#)

**Depend to:**

[InMemory\\_caching](#), [OnDisk\\_caching](#)

 **UseCase** Cache\_clearing

### Use Case Extends Hierarchy

Cache\_optimizing

|

+--Cache\_clearing

**Parent :** [System](#)

**Extend from**

[Cache\\_optimizing](#)

 **UseCase** DBMS\_mapping

**Parent :** [System](#)

**Include by:**

[resource\\_caching](#)

 **UseCase** Cache\_optimizing

**Parent :** [System](#)

**Include by:**

[resource\\_caching](#)

**Extended by**

[Memory-Disk\\_shifting](#),

[Cache\\_clearing](#)

**Extension Point**

**Name :** ExtensionPoint

Name : ExtensionPoint

### UseCase invalidating

#### Use Case Extends Hierarchy

resource\_caching

--invalidating

Parent : [System](#)

Extend from

[resource\\_caching](#)

Communication Link [communicationlink](#) to [User](#)



Actor User

Communication Link [communicationlink](#) to [invalidating](#)

Communication Link [communicationlink](#) to [resource\\_retriving](#)



System System

Children:

[resource\\_retriving](#), [resource\\_creating](#), [resource\\_uncaching](#), [resource\\_caching](#), [OnDisk\\_caching](#),  
[InMemory\\_caching](#), [resource\\_statistics\\_counting](#), [Creation\\_time\\_counting](#),  
[GetFromDisk\\_time\\_counting](#), [Resource\\_size\\_counting](#), [Memory-Disk\\_shifting](#), [Cache\\_clearing](#),  
[DBMS\\_mapping](#), [Cache\\_optimizing](#), [invalidating](#)

### Communication Link

Communication Link End From

Element : [resource\\_retriving](#)

Communication Link End To

Element : [User](#)

### Communication Link

**Communication Link End From**

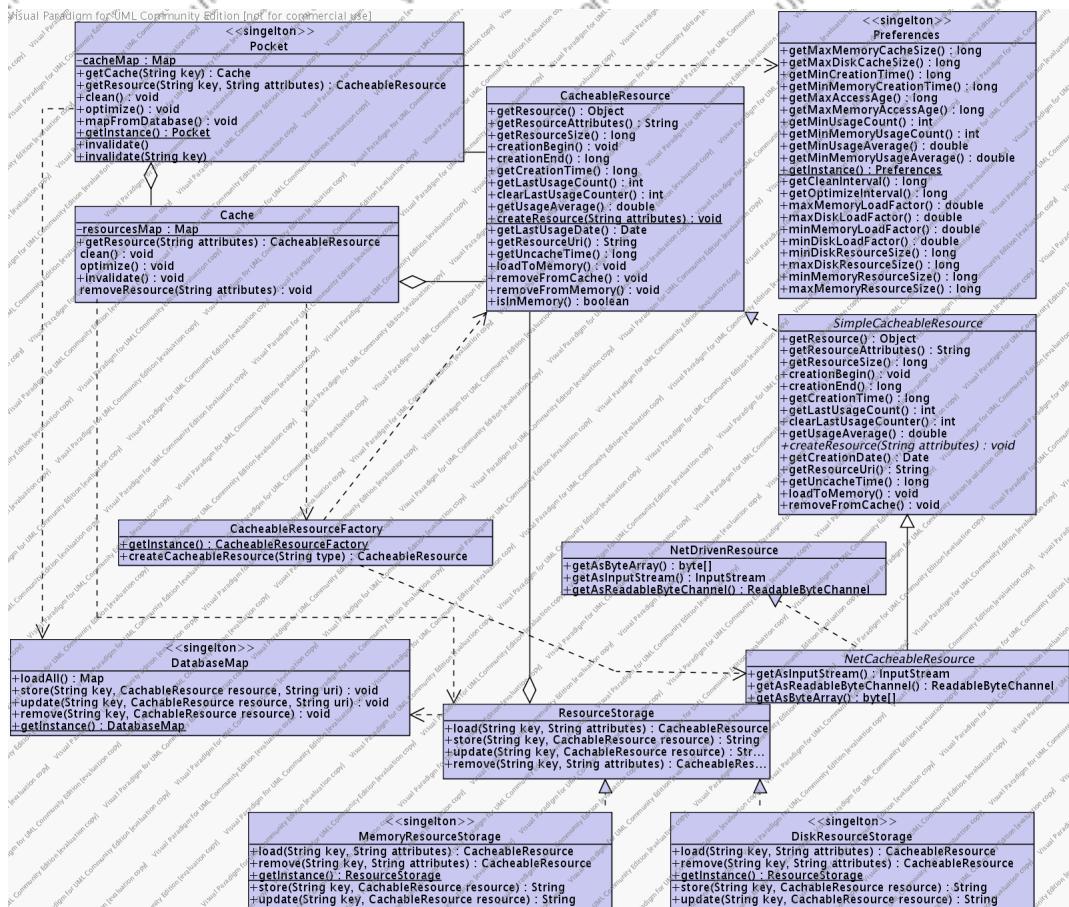
Element : [User](#)

**Communication Link End To**

Element : [invalidating](#)

## ResourcePocket - Java caching library

### ClassDiagram



### Diagram Content Summary

- [CacheableResource](#)
- [Cache](#)
- [Pocket](#)
- [ResourceStorage](#)
- [MemoryResourceStorage](#)
- [DiskResourceStorage](#)
- [DatabaseMap](#)
- [Preferences](#)
- [SimpleCacheableResource](#)

	<a href="#">CacheableResourceFactory</a>
	<a href="#">NetDrivenResource</a>
	<a href="#">NetCacheableResource</a>

## Diagram Content Detail



### Class CacheableResource

#### Realized by:

[SimpleCacheableResource](#)

**Association** [association to Cache](#)

**Association** [association to Pocket](#)

**Association** [association to ResourceStorage](#)

#### Depended by:

[CacheableResourceFactory](#)

#### Operation Summary

public Object	getResource()
public String	getResourceAttributes()
public long	getResourceSize()
public void	creationBegin()
public long	creationEnd()
public long	getCreationTime()
public int	getLastUsageCount()
public int	clearLastUsageCounter()
public double	getUsageAverage()
public void	createResource( String attributes)
public Date	getLastUsageDate()
public String	getResourceUri()
public long	getUncacheTime()
public void	loadToMemory()
public void	removeFromCache()
public void	removeFromMemory()
public boolean	isInMemory()

#### Operation Detail

public Object getResource()

## ResourcePocket - Java caching library

### Documentation

@return

#### Return Type : Object

```
public String getResourceAttributes()
```

#### Return Type : String

```
public long getResourceSize()
```

#### Return Type : long

```
public void creationBegin()
```

#### Return Type : void

```
public long creationEnd()
```

#### Return Type : long

```
public long getCreationTime()
```

#### Return Type : long

```
public int getLastUsageCount()
```

#### Return Type : int

```
public int clearLastUsageCounter()
```

## ResourcePocket - Java caching library

**Return Type:** int

```
public double getUsageAverage()
```

**Return Type :** double

```
public void createResource( String attributes)
```

**Scope :** classifier

**Parameter Detail**

**Name :** String attributes

**Type :**

**Return Type :** void

```
public Date getLastUsageDate()
```

**Return Type :** Date

```
public String getResourceUri()
```

**Return Type :** String

```
public long getUncacheTime()
```

**Return Type :** long

```
public void loadToMemory()
```

**Return Type :** void

## ResourcePocket - Java caching library

`public void removeFromCache()`

**Return Type :** `void`

`public void removeFromMemory()`

**Return Type :** `void`

`public boolean isInMemory()`

**Return Type :** `boolean`



### Class Cache

#### Documentation

@author Sebastian Ryszard Krusk

**Visibility :** `protected`

**Association** [association to CacheableResource](#)

**Association** [association to Pocket](#)

**Depend to:**

[ResourceStorage](#), [CacheableResourceFactory](#)

#### Attribute Summary

<code>private Map</code>	<code>resourcesMap</code>
--------------------------	---------------------------

#### Operation Summary

<code>public CacheableResource</code>	<code>getResource( String attributes)</code>
<code>package void</code>	<code>clean()</code>
<code>package void</code>	<code>optimize()</code>
<code>public void</code>	<code>invalidate()</code>
<code>package void</code>	<code>removeResource( String attributes)</code>

## ResourcePocket - Java caching library

### Attribute Detail

```
private Map resourcesMap
```

### Operation Detail

```
public CacheableResource getResource( String attributes)
```

### Parameter Detail

Name : String attributes

Type :

Return Type : [CacheableResource](#)

```
package void clean()
```

Return Type : [void](#)

```
package void optimize()
```

Return Type : [void](#)

```
public void invalidate()
```

Return Type : [void](#)

```
package void removeResource( String attributes)
```

### Parameter Detail

Name : String attributes

Type :

**Return Type :** void**Class** Pocket**Documentation**

@author Sebastian Ryszard Kruskal

**Visibility :** protected**Association** [association to Cache](#)**Association** [association to CacheableResource](#)**Depend to:**[DatabaseMap](#), [Preferences](#)**Attribute Summary**

private Map	cacheMap
-------------	----------

**Operation Summary**

public <a href="#">Cache</a>	getCache( String key)
public <a href="#">CacheableResource</a>	getResource( String key, String attributes)
public void	clean()
public void	optimize()
public void	mapFromDatabase()
public <a href="#">Pocket</a>	getInstance()
public	invalidate()
public	invalidate( String key)

**Attribute Detail**

private Map cacheMap

**Operation Detail**public [Cache](#) getCache( String key)**Parameter Detail****Name :** String key

Type :

Return Type : [Cache](#)

```
public CacheableResource getResource( String key, String attributes)
```

Parameter Detail

Name : String key

Type :

Name : String attributes

Type :

Return Type : [CacheableResource](#)

```
public void clean()
```

Return Type : [void](#)

```
public void optimize()
```

Return Type : [void](#)

```
public void mapFromDatabase()
```

Return Type : [void](#)

```
public Pocket getInstance()
```

Scope : classifier

Return Type : [Pocket](#)

```
public invalidate()
```

**Return Type:**

<code>public invalidate( String key)</code>
---

**Parameter Detail**

**Name :** String key

**Type :**

**Return Type:**

**Class** ResourceStorage

**Documentation**

@author Sebastian Ryszard Krusk

**Realized by:**

[DiskResourceStorage](#) , [MemoryResourceStorage](#)

**Association association to CacheableResource****Depend to:**

[DatabaseMap](#)

**Depended by:**

[Cache](#)

**Operation Summary**

<code>public CacheableResource</code>	<code>load( String key, String attributes)</code>
<code>public String</code>	<code>store( String key, CachableResource resource)</code>
<code>public String</code>	<code>update( String key, CachableResource resource)</code>
<code>public CacheableResource</code>	<code>remove( String key, String attributes)</code>

**Operation Detail**

<code>public CacheableResource load( String key, String attributes)</code>
--

**Parameter Detail**

**Name :** String key

**Type :**

**Name :** String attributes  
**Type :**

**Return Type :** [CacheableResource](#)

```
public String store( String key, CacheableResource resource)
```

#### Parameter Detail

**Name :** String key  
**Type :**

**Name :** CacheableResource resource  
**Type :**

**Return Type :** String

```
public String update( String key, CacheableResource resource)
```

#### Parameter Detail

**Name :** String key  
**Type :**

**Name :** CacheableResource resource  
**Type :**

**Return Type :** String

```
public CacheableResource remove( String key, String attributes)
```

#### Parameter Detail

**Name :** String key  
**Type :**  
**Name :** String attributes

**Type :****Return Type :** [CacheableResource](#)**Class** MemoryResourceStorage**Documentation**

@author Sebastian Ryszard Kruck

**Realization:**[ResourceStorage](#)**Operation Summary**

public <a href="#">CacheableResource</a>	<code>load( String key, String attributes)</code>
public <a href="#">CacheableResource</a>	<code>remove( String key, String attributes)</code>
public <a href="#">ResourceStorage</a>	<code>getInstance()</code>
public <a href="#">String</a>	<code>store( String key, CacheableResource resource)</code>
public <a href="#">String</a>	<code>update( String key, CacheableResource resource)</code>

**Operation Detail**`public CacheableResource load( String key, String attributes)`**Parameter Detail****Name :** String key**Type :****Name :** String attributes**Type :****Return Type :** [CacheableResource](#)`public CacheableResource remove( String key, String attributes)`**Parameter Detail****Name :** String key**Type :**

**Name :** String attributes

**Type :**

**Return Type :** [CacheableResource](#)

```
public ResourceStorage getInstance()
```

**Scope :** classifier

**Return Type :** [ResourceStorage](#)

```
public String store( String key, CachableResource resource)
```

#### Parameter Detail

**Name :** [String](#) key

**Type :**

**Name :** [CachableResource](#) resource

**Type :**

**Return Type :** [String](#)

```
public String update( String key, CachableResource resource)
```

#### Parameter Detail

**Name :** [String](#) key

**Type :**

**Name :** [CachableResource](#) resource

**Type :**

**Return Type :** [String](#)



**Class** [DiskResourceStorage](#)

**Documentation**

@author Sebastian Ryszard Kruk

**Realization:**

[ResourceStorage](#)

**Operation Summary**

public <a href="#">CacheableResource</a>	load( String key, String attributes)
public <a href="#">CacheableResource</a>	remove( String key, String attributes)
public <a href="#">ResourceStorage</a>	getInstance()
public <a href="#">String</a>	store( String key, CachableResource resource)
public <a href="#">String</a>	update( String key, CachableResource resource)

**Operation Detail**

public [CacheableResource](#) load( String key, String attributes)

**Parameter Detail**

**Name :** String key

**Type :**

**Name :** String attributes

**Type :**

**Return Type :** [CacheableResource](#)

public [CacheableResource](#) remove( String key, String attributes)

**Parameter Detail**

**Name :** String key

**Type :**

**Name :** String attributes

**Type :**

**Return Type :** [CacheableResource](#)

## ResourcePocket - Java caching library

```
public ResourceStorage getInstance()
```

**Scope :** classifier

**Return Type :** [ResourceStorage](#)

```
public String store( String key, CachableResource resource)
```

### Parameter Detail

**Name :** String key

**Type :**

**Name :** CachableResource resource

**Type :**

**Return Type :** String

```
public String update( String key, CachableResource resource)
```

### Parameter Detail

**Name :** String key

**Type :**

**Name :** CachableResource resource

**Type :**

**Return Type :** String



## Class DatabaseMap

### Documentation

@author Sebastian Ryszard Kruk

### Depended by:

[ResourceStorage](#), [Pocket](#)

## Operation Summary

## ResourcePocket - Java caching library

public Map	loadAll()
public void	store( String key, CachableResource resource, String uri)
public void	update( String key, CachableResource resource, String uri)
public void	remove( String key, CachableResource resource)
public DatabaseMap	getInstance()

### Operation Detail

**public Map loadAll()**

#### Return Type : Map

**public void store( String key, CachableResource resource, String uri)**

#### Parameter Detail

**Name :** String key

**Type :**

**Name :** CachableResource resource

**Type :**

**Name :** String uri

**Type :**

#### Return Type : void

**public void update( String key, CachableResource resource, String uri)**

#### Parameter Detail

**Name :** String key

**Type :**

**Name :** CachableResource resource

**Type :**

## ResourcePocket - Java caching library

**Name :** String uri

**Type :**

**Return Type :** void

```
public void remove( String key, CachableResource resource)
```

### Parameter Detail

**Name :** String key

**Type :**

**Name :** CachableResource resource

**Type :**

**Return Type :** void

```
public DatabaseMap getInstance()
```

**Scope :** classifier

**Return Type :** DatabaseMap



## Class Preferences

### Documentation

@author Sebastian Ryszard Kruk

### Depended by:

[Pocket](#)

### Operation Summary

public long	getMaxMemoryCacheSize()
public long	getMaxDiskCacheSize()
public long	getMinCreationTime()
public long	getMinMemoryCreationTime()
public long	getMaxAccessAge()
public long	getMaxMemoryAccessAge()
public int	getMinUsageCount()

## ResourcePocket - Java caching library

public int	getMinMemoryUsageCount()
public double	getMinUsageAverage()
public double	getMinMemoryUsageAverage()
public Preferences	getInstance()
public long	getCleanInterval()
public long	getOptimizeInterval()
public double	maxMemoryLoadFactor()
public double	maxDiskLoadFactor()
public double	minMemoryLoadFactor()
public double	minDiskLoadFactor()
public long	minDiskResourceSize()
public long	maxDiskResourceSize()
public long	minMemoryResourceSize()
public long	maxMemoryResourceSize()

### Operation Detail

```
public long getMaxMemoryCacheSize()
```

**Return Type :** long

```
public long getMaxDiskCacheSize()
```

**Return Type :** long

```
public long getMinCreationTime()
```

**Return Type :** long

```
public long getMinMemoryCreationTime()
```

**Return Type :** long

```
public long getMaxAccessAge()
```

**Return Type :** long

```
public long getMaxMemoryAccessAge()
```

**Return Type :** long

```
public int getMinUsageCount()
```

**Return Type :** int

```
public int getMinMemoryUsageCount()
```

**Return Type :** int

```
public double getMinUsageAverage()
```

**Return Type :** double

```
public double getMinMemoryUsageAverage()
```

**Return Type :** double

```
public Preferences getInstance()
```

**Scope :** classifier

**Return Type :** Preferences

```
public long getCleanInterval()
```

**Return Type :** long

```
public long getOptimizeInterval()
```

**Return Type :** long

```
public double maxMemoryLoadFactor()
```

**Return Type :** double

```
public double maxDiskLoadFactor()
```

**Return Type :** double

```
public double minMemoryLoadFactor()
```

**Return Type :** double

```
public double minDiskLoadFactor()
```

**Return Type :** double

```
public long minDiskResourceSize()
```

**Return Type :** long

```
public long maxDiskResourceSize()
```

**Return Type :** long

```
public long minMemoryResourceSize()
```

**Return Type:** long`public long maxMemoryResourceSize()`**Return Type :** long**Class** SimpleCacheableResource**Is Abstract:** true**Realization:**[CacheableResource](#)**Subclasses**[NetCacheableResource](#)**Operation Summary**

public Object	getResource()
public String	getResourceAttributes()
public long	getResourceSize()
public void	creationBegin()
public long	creationEnd()
public long	getCreationTime()
public int	getLastUsageCount()
public int	clearLastUsageCounter()
public double	getUsageAverage()
public void	createResource( String attributes)
public Date	getCreationDate()
public String	getResourceUri()
public long	getUncacheTime()
public void	loadToMemory()
public void	removeFromCache()

**Operation Detail**`public Object getResource()`**Documentation**

@return

**Return Type :** Object

```
public String getResourceAttributes()
```

**Return Type :** String

```
public long getResourceSize()
```

**Return Type :** long

```
public void creationBegin()
```

**Return Type :** void

```
public long creationEnd()
```

**Return Type :** long

```
public long getCreationTime()
```

**Return Type :** long

```
public int getLastUsageCount()
```

**Return Type :** int

```
public int clearLastUsageCounter()
```

**Return Type :** int

```
public double getUsageAverage()
```

**Return Type :** double

```
public void createResource( String attributes)
```

**Is Abstract :** true

#### Parameter Detail

**Name :** String attributes

**Type :**

**Return Type :** void

```
public Date getCreationDate()
```

**Return Type :** Date

```
public String getResourceUri()
```

**Return Type :** String

```
public long getUncacheTime()
```

**Return Type :** long

```
public void loadToMemory()
```

**Return Type :** void

```
public void removeFromCache()
```

**Return Type:** void



**Class** CacheableResourceFactory

**Depend to:**

[CacheableResource](#), [NetCacheableResource](#)

**Depended by:**

[Cache](#)

#### Operation Summary

public	getInstance()
<a href="#">CacheableResourceFactory</a>	
public <a href="#">CacheableResource</a>	createCacheableResource( String type)

#### Operation Detail

public [CacheableResourceFactory](#) getInstance()

**Scope :** classifier

**Return Type :** [CacheableResourceFactory](#)

public [CacheableResource](#) createCacheableResource( String type)

#### Parameter Detail

**Name :** String type

**Type :**

**Return Type :** [CacheableResource](#)



**Class** NetDrivenResource

**Realized by:**

[NetCacheableResource](#)

#### Operation Summary

## ResourcePocket - Java caching library

public byte[]	getAsByteArray()
public InputStream	getAsInputStream()
public ReadableByteChannel	getAsReadableByteChannel()

### Operation Detail

[public byte\[\] getAsByteArray\(\)](#)

**Return Type :** [byte\[\]](#)

[public InputStream getAsInputStream\(\)](#)

**Return Type :** [InputStream](#)

[public ReadableByteChannel getAsReadableByteChannel\(\)](#)

**Return Type :** [ReadableByteChannel](#)



**Class** [NetCacheableResource](#)

### Generalization Hierarchy

[SimpleCacheableResource](#)

+--NetCacheableResource

**Is Abstract :** true

**Realization:**

[NetDrivenResource](#)

**Super Class**

[SimpleCacheableResource](#)

**Depended by:**

[CacheableResourceFactory](#)

### Operation Summary

public InputStream	getAsInputStream()
public ReadableByteChannel	getAsReadableByteChannel()
public byte[]	getAsByteArray()

## Operation Detail

```
public InputStream getAsInputStream()
```

**Return Type :** [InputStream](#)

```
public ReadableByteChannel getAsReadableByteChannel()
```

**Return Type :** [ReadableByteChannel](#)

```
public byte[] getAsByteArray()
```

**Return Type :** [byte\[\]](#)

## Association

### Association End From

**Element :** [Cache](#)

**Aggregation Kind :** Aggregation

### Association End To

**Element :** [CacheableResource](#)

## Association

### Association End From

**Element :** [Pocket](#)

**Aggregation Kind :** Aggregation

### Association End To

**Element :** [Cache](#)

## Association

### Association End From

**Element :** [Pocket](#)

**Association End To**

**Element :** [CacheableResource](#)

**Association**

**Association End From**

**Element :** [ResourceStorage](#)

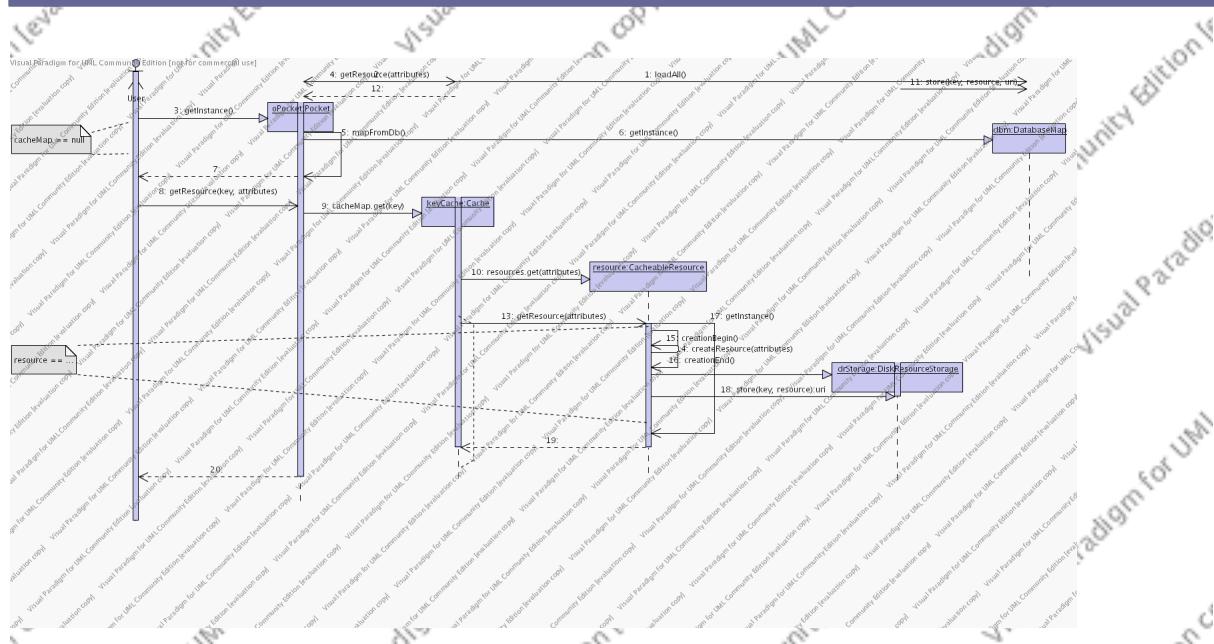
**Aggregation Kind :** Aggregation

**Association End To**

**Element :** [CacheableResource](#)

## ResourcePocket - Java caching library

### ResourceRetrieval



### Diagram Content Summary



### Diagram Content Detail



#### Create Message to [oPocket](#)

**Name :** `getInstance()`  
**Sequence number:** 3

#### Message to [oPocket](#)

**Name :** `getResource(key, attributes)`

**Sequence number:** 8

**Message from**

[oPocket](#)

 **Object** [oPocket](#)

**Base Classifier:** [Pocket](#)

**Message to** [dbm](#)

**Name :** loadAll()

**Sequence number:** 1

**Return Message to** [User](#)

**Name :**

**Sequence number:** 20

**Return action detail**

**Name :** Return

**Message to** [keyCache](#)

**Name :** getResource(attributes)

**Sequence number:** 4

**Message to** [oPocket](#)

**Name :** mapFromDb()

**Sequence number:** 5

**Create Message to** [dbm](#)

**Name :** getInstance()

**Sequence number:** 6

**Return Message to** [User](#)

**Name :**

**Sequence number:** 7

**Return action detail**

**Name :** Return

**Create Message to** [keyCache](#)

**Name :** cacheMap.get(key)

**Sequence number:** 9

**Create Message from**

User

**Message from**

User, keyCache

 **Object** keyCache

**Base Classifier:** Cache

**Create Message to** resource

**Name :** resources.get(attributes)

**Sequence number:** 10

**Return Message to** oPocket

**Name :**

**Sequence number:** 12

**Return action detail**

**Name :** Return

**Message to** resource

**Name :** getResource(attributes)

**Sequence number:** 13

**Return Message to** oPocket

**Name :**

**Sequence number:** 2

**Return action detail**

**Name :** Return

**Create Message from**

oPocket

**Message from**

oPocket, resource

 **Object** resource

**Base Classifier:** CacheableResource

**Message to resource**

**Name :** createResource(attributes)

**Sequence number:** 14

**Message to resource**

**Name :** creationBegin()

**Sequence number:** 15

**Message to resource**

**Name :** creationEnd()

**Sequence number:** 16

**Create Message to drStorage**

**Name :** getInstance()

**Sequence number:** 17

**Call Message to drStorage**

**Name :** store(key, resource):uri

**Sequence number:** 18

**Call action detail**

**Name :** Call

**Return Message to keyCache**

**Name :**

**Sequence number:** 19

**Return action detail**

**Name :** Return

**Create Message from**

keyCache

**Message from**

keyCache

 **Object** dbm

**Base Classifier:** DatabaseMap

**Create Message from**

oPocket

**Message from**

[oPocket](#), [drStorage](#)

 **Object** drStorage

**Base Classifier:** [DiskResourceStorage](#)

**Send Message to** dbm

**Name :** store(key, resource, uri)

**Sequence number:** 11

**Asynchronous :** true

**Send action detail**

**Name :** Send

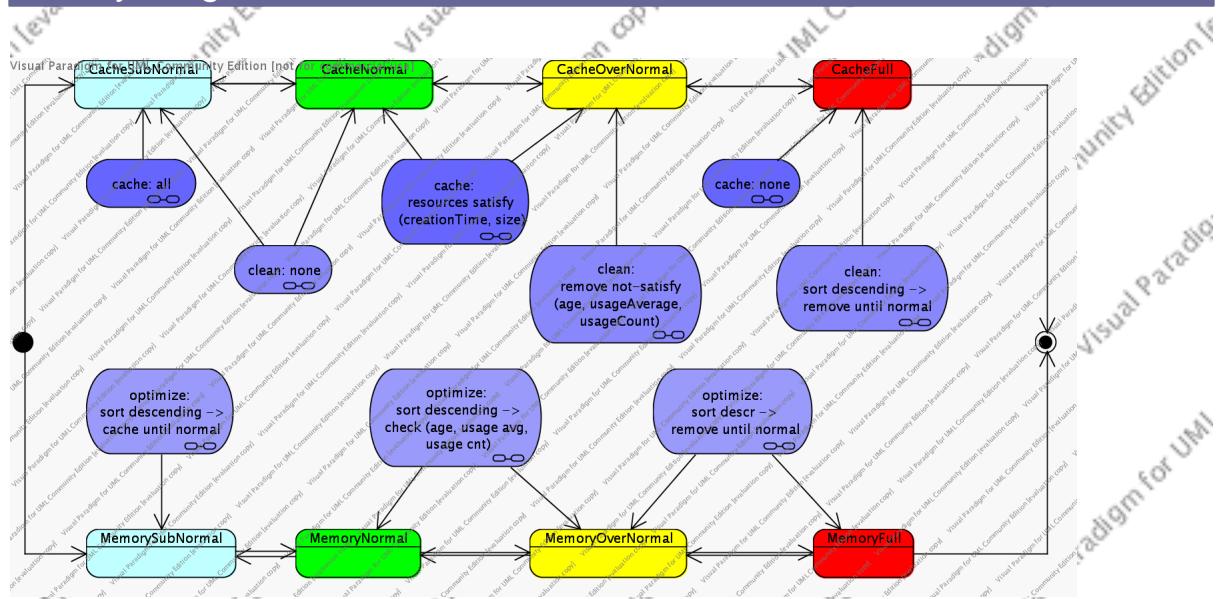
**Create Message from**

[resource](#)

**Message from**

[resource](#)

## Activity Diagram1



## Diagram Content Summary

- Initial State
- cache: all
- cache: resources satisfy (creationTime, size)
- clean: none
- clean: remove not-satisfy (age, usageAverage, usageCount)
- clean: sort descending -> remove until normal
- cache: none
- optimize: sort descending -> cache until normal
- optimize: sort descending -> check (age, usage avg, usage cnt)
- optimize: sort descr -> remove until normal
- CacheNormal
- CacheOverNormal
- CacheFull
- MemorySubNormal
- CacheSubNormal
- MemoryNormal
- MemoryOverNormal
- MemoryFull

● [FinalState](#)

### Diagram Content Detail

● **Initial State** InitialState

Transition link to [CacheSubNormal](#)

Transition link to [MemorySubNormal](#)

● **Sub Activity** cache: all

Transition link to [CacheSubNormal](#)

● **Sub Activity** cache: resources satisfy (creationTime, size)

Transition link to [CacheNormal](#)

Transition link to [CacheOverNormal](#)

● **Sub Activity** clean: none

Transition link to [CacheSubNormal](#)

Transition link to [CacheNormal](#)

● **Sub Activity** clean: remove not-satisfy (age, usageAverage, usageCount)

Transition link to [CacheOverNormal](#)

● **Sub Activity** clean: sort descending -> remove until normal

Transition link to [CacheFull](#)

 **Sub Activity** cache: none

Transition link to [CacheFull](#)

 **Sub Activity** optimize: sort descending -> cache until normal

Transition link to [MemorySubNormal](#)

 **Sub Activity** optimize: sort descending -> check (age, usage avg, usage cnt)

Transition link to [MemoryNormal](#)

Transition link to [MemoryOverNormal](#)

 **Sub Activity** optimize: sort descr -> remove until normal

Transition link to [MemoryOverNormal](#)

Transition link to [MemoryFull](#)

 **State** CacheNormal

Transition link to [CacheOverNormal](#)

Transition link to [CacheSubNormal](#)

Transition link from

[CacheOverNormal](#), [CacheSubNormal](#), clean: none, cache: resources satisfy (creationTime, size)

 **State** CacheOverNormal

**Transition link to** [CacheFull](#)

**Transition link to** [CacheNormal](#)

**Transition link from**

[CacheNormal](#), [CacheFull](#), cache: resources satisfy (creationTime, size), clean: remove not-satisfy (age, usageAverage, usageCount)

 **State** CacheFull

**Transition link to** [FinalState](#)

**Transition link to** [CacheOverNormal](#)

**Transition link from**

[CacheOverNormal](#), cache: none, clean: sort descending -> remove until normal

 **State** MemorySubNormal

**Transition link to** [MemoryNormal](#)

**Transition link from**

[InitialState](#), optimize: sort descending -> cache until normal, [MemoryNormal](#)

 **State** CacheSubNormal

**Transition link to** [CacheNormal](#)

**Transition link from**

[InitialState](#), [CacheNormal](#), cache: all, clean: none

 **State** MemoryNormal

**Transition link to** [MemoryOverNormal](#)

**Transition link to** [MemorySubNormal](#)

**Transition link from**

[MemorySubNormal](#), [optimize: sort descending -> check \(age, usage avg, usage cnt\)](#),  
[MemoryOverNormal](#)



**State** MemoryOverNormal

**Transition link to** [MemoryFull](#)

**Transition link to** [MemoryNormal](#)

**Transition link from**

[MemoryNormal](#), [optimize: sort descending -> check \(age, usage avg, usage cnt\), optimize:](#)  
[sort desc -> remove until normal](#), [MemoryFull](#)



**State** MemoryFull

**Transition link to** [FinalState](#)

**Transition link to** [MemoryOverNormal](#)

**Transition link from**

[MemoryOverNormal](#), [optimize: sort descr -> remove until normal](#)



**Final State** FinalState

**Transition link from**

[CacheFull](#), [MemoryFull](#)

