```
cache
                                                ref(hash code of WishMessageGenerator)
                   LazyLoading
                                                ref(hash code of java.util.Date)
                 BeanFactory [IOC]
                           java.util.Date
                                                           applicationContext.xml
                                              InMemoryData
         date = nx1
                                           buffer
                                              <bean>information
                                                is loaded
                    JRE/JVM
                                                          <!-- Configuring the DEPENDENT Component -->
                                                          <bean id="dt" class="java.util.Date"/>
#3
                     RAM
                                                          <!-- Configuring the Target Component -->
                                                          <bean id="wmg" class="in.ineuron.comp.WishMessageGenerator">
                                                              property name="date" ref="dt"/>
                                                                              #2
                                                          </bean>
  Behind the scenes
 _____

    Object obj = factory.getBean("wmg");

       Container will check the internal cache for the bean with the id "wmg".
   Class c =Class.forName("in.ineuron.comp.WishMessageGenerator");
   WishMessageGenerator wmg = (WishMessageGenerator) c.newInstance();
  **Container will keep the ref(wmg) in the cache and the object reference as the value in the cache.
    Container will check in the internal cache for the bean with the id "dt".
      Class c1 =Class.forName("java.util.Date");
      Date dt =(Date)c1.newInstance();
** Container will keep the ref(dt) in the cache and the object reference as the value in the cache.
   Because of <property name="date" ref="dt"/>
      container will setDate(dt) on the wmg object as shown below
               wmg.setDate(dt);
Note: Default scope of all the beans in IOC-container is "Singleton".
2. Since the programm in running with the help of main(), when the main() finishes the execution
      => Automatically container will be closed, due to which the internal cache, objects and
        InMemory data will be flushed from JVM area.
     => Finally JVM also will be cleaned from JRE region.
 ApplicationContext(I)
                                         cache
                                            ref(hash code of WishMessageGenerator)
                                      wmg
             EagerLoading
                                            ref(hash code of java.util.Date)

HDD

InMemoryData applicationContext.xml
          ApplicationContext(I)
                        java.util.Date
                                           InMemoryData
      date = nxl
                                        buffer
                                          <bean>information
                                             is loaded
                 JRE/JVM
                                                       <!-- Configuring the DEPENDENT Component -->
                                                        <bean id="dt" class="java.util.Date"/>
                  RAM
                                                       <!-- Configuring the Target Component -->
                                                       <bean id="wmg" class="in.ineuron.comp.WishMessageGenerator">
                                                            cproperty name="date" ref="dt"/>
                                                       </bean>
ConstructorInjection
                                              Cache(Map<K,V>)
                                                                       <!-- Configuring the DEPENDENT Component -->
               IOC-Container
                                                                           <bean id="dt" class="java.util.Date"/>
                                                hashcode of Date obj
    java.util.Date
                                                   hashcode of
                                          wmg
                                                                       <!-- Configuring the Target Component -->
                                                                       <bean id="wmg" class="in.ineuron.comp.WishMessageGenerator">
                                                WishMessageGenerator
                                                                             <constructor-arg name="date" ref='dt'/>
                                                                       </bean>
                                                InMemoryData
                                                                                   #2
                                                 Buffer
                                                                       applicationContext.xml
                      WishMessageGenerator
                JRE/JVM
                 RAM
                                                                              HDD
 Behind the scenes
 -----

    Object obj = factory.getBean("wmg");

       Container will check the internal cache for the bean with the id "wmg".
       since it is not available, container will also see how the bean has to be created.
       if it is through <constructor-arg> then container will check what is the bean id of the
       referenced object.
           <constructor-arg name='date' ref='dt'/>
2. Since the injection is of <constructor-arg> container will create an object of depedent class for
    the bean id "dt".
           <bean id ="dt" class="java.util.Date"/>
                             Date dt =(Date)Class.forName("java.util.Date").newInstance();
    The "dt" reference will be kept in the internal cache of IOC-cotnainer for future usage.
3. Now the container will create an object of Target class by using Dependant object through constructor injection.
     <bean id="wmg" class="in.ineuron.comp.WishMessageGenerator">
```

ReflectionAPI

WishMessageGenerator wmg = (WishMessageGenerator) const[0].newInstance(dt);

Class c = Class.forName("in.ineuron.comp.WishMessageGenerator");

Constructor const[] = c.getDeclaredConstructors();

const[]

date

Date

<constructor-arg name="date" ref="dt"/>

</bean>