```
•• The ICC containers of spring /spring boot frameworks are given for two basic operations.
        a) spring trean title cycle management
        b) Department Management
                               2. Dependency
    L.Departdency
                                  Injustion (IM)
     Lookup (EU)
     Here the target spring been
                                        [Here the underlying server /container/framework/
     searches and gets dependent
                                          JMS and etc., dynamically assigns /injects dependent
     spring been clear objitrom.
                                         apring been clear objito target apring been class ob().
     various resourced
       Departdency Lookup
        •• Here the target spring been /these dynamically poerthes and gate Dependent
                appling bean Julians obj. from various respenses
        as Here the target spring learn Albert pulls, dependent spring learn Albert 198)
       egt (non-technical) u. Statent (larget) asserting and getting course naterial (dependent)
                                     from the institute on demand
       e.gl.: The way, Java App searched and gats implicit references from
                   the INDIRegistry (INDI: Java Kenning And Directory Interface)
       at The object that is explicit inside the method is specific to that exclude (Local Scope (Method Scope))
       The object that is created inside the class as the non-static property.
             is specific to the object of a class (Object Sound).
       => The object their created incide the descriptions property is specific to entire
       to To provide more and more global visibility and accusibility for any objective need.
           its reference in the Jodi Registry w/w
              ngs the Regiony , BMI Registry , Weblingis Indi Registry , Ternari Indi Registry ,
                                  Glosofish Indiregistry and etc...
              note: Derry web server (like Tomost) and every App server (like weblogic) gives built-in
                               and registry
       viz. The Important jow objects of distributed Approved be kept in Unit registry to reside
        them visible and accessible for local and remote clients.
        The obj. The google pay, phone pat. Bit Service, ICC Scope Stindos and etc., will be kept in
that registry to provide global Violatity and arresolutity for them.
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                  Block marrier Chinese and
                                                                           ere utilemente
                                                                                                     phone
                                        JPRCAPT (Technology)
                                                 minute DB (Sec.
                          Clave Applicated 1050 API to interact with DB s/w to manipulate DB tables Data.
                                 sorbling perform CURD Operations (insert, update, delete and select operations).
                                     HADLANI (Technology)
                                                     and Intil Registry
                         (lean approve Intil AFI to interest with Indil rightry to perform indil operations on it)
                                The Intil Operations are
                                    a) Blad Connection is the other black of the fault surface, business intermed

    Unit ind Operation : Formeving the Object of from the Underspray

                                    \vec{q} . Reflied Operation : Replacing the spiriting object with new object
                                    d) Lookup reperation : Searching and gotting Object relificon the Andinoglating
        proceed const of Dependency Looks p
           ** The target class/spring bean will search, and get only the required Dependent
             upring been /lim/s class obj.
           "Nine its right spring beam/java class should spend time, and should write logics to search and
             per Department up ting bear class state. (This improves the location on the Engineering)
                Dependency Injection
              & Here the underlying the server fauntainer /Framework dynamically assigns. Dependent class/
              spring been oblitto target descharing been class obl.
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•q (:: The recommit students) larger() joins the course the help a reigned with Course meterial (dependent) execution its and domarc leafly.

to target upring been /jews class object:

while the underlying any like server/ambainer h . I dynamically pushes. Dependent spring bean h and class ab

- => The IOC containers of spring /spring boot frameworks are given for two basic operations a) Spring Bean Life cycle management
- b) Dependency Management
- 1.Dependency

Lookup (DL)

2. Dependency Injection (DI)

[Here the target spring bean

searches and gets dependent

spring bean class obj from various resources]

[Here the underlying server /container/framework/ JRE and etc.. dynamically assigns /injects dependent spring bean class obj to target spring bean class obj]

Dependency Lookup

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- => Here the target spring bean /class dynamically searches and gets Dependent spring bean/class obj from various resources
- => HEre the target spring bean/class pulls dependent spring bean/class obj

eg1 (non-technical) :: Student (Target) searching and getting course material (dependent)

from the institute on demand

eg1:: The way java App searches and gets imp obj references from

the JNDI Registry (JNDI :: Java Naming And Directory Interface)

- => The object that is created inside the method is specific to that method (Local Scope/Method Scope)
- => The object that is created inside the class as the non-static property

is specific to the object of a class (Object Scope)

=> The object the is created inside the class as static property is specific to entire

class (class scope)

=> To provide more and more global visibility and accessibility for any object we need its reference in the Jndi Registry s/w

eg: Cos Registry, RMI Registry, Weblogic Jndi Registry, Tomcat Jndi Registry, GlassFish Jndi registry and etc...

note:: Every web server (like Tomcat) and every App server (like weblogic) gives built-in Jndi registry

- => The important java objects of distributed Apps will be kept in Jndi registry to make them visible and accessible for local and remote clients
- => The objs like google pay, phone pe, BSE Service, ICC Scope Service and etc.. will be kept in Undi registry to provide global Visibility and accessibility for them

Java App (target class)

// Connect to Jndi registry

InitialContext ic=new InitialContext(props);

//perform lookup operation (dependency lookup)

gpay Google Pay obj ref phonpe PhonePe objref network icc ICCSCoreComp ref indricekup operation // invoke b.methods Nick name Object ref String msg=gpay.doPayment (999999999, 8967); sysout(msg); phone number amount Google Pay gpay=ic .lookup("gpay"); Java App JDBC API (Technology) =====> DB s/w (Java App uses JDBC API to interact with DB s/w to manipulate DB tables Data nothing perform CURD Operations (insert,update,delete and select operations) Java App JNDI API (Technology) =====> Jndi Registry (Java app uses Jndi API to interact with Jndi registry to perform Jndi operations on it) The Jndi Operations a) Bind Operation :: Keeping the Object ref in Jndi registry having nick name b) UnBind Operation :: Removing the Object ref from the Jndi registry c) ReBind Operation :: Replacing the existing object with new object d) Lookup operation :: Searching and getting Object ref from the Jndi registry pros and cons of Dependency Lookup ==== pros => The target class/spring bean will search and get only the required Dependent spring bean/java class obj cons =>The target spring bean/java class should spend time and should write logics to search and get Dependent spring bean class objs (This improves the burden on the Programmer) **Dependency Injection** =====

=> Here the underlying the server /container/Framework dynamically assigns Dependent class/ spring bean obj to target class/spring bean class obj.

- => HEre the underlying env. (like server/container /...) dynamically pushes Dependent spring bean /java class obj to target spring bean /java class object
- eg1:: The moment student(target) joins the course the he is assigned with Course material (dependent) automatically and dynamically
- eg2:: The way JVM assigns default values (0,0.0,null,false as dependent values) to java class obj(target) the it creates the object is called Dependency Injection
- eg3:: The way Servlet Container assigns SErvletconfig object(dependent class obj) to Servlet comp class obj (target object) is called Dependency Injection

pros(advantages)

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- => The target spring bean /java class can use dependent objs directly as they are available readily injected by underlying server/container/.....
- =>The target spring bean /java class need not to spend time and need not to write logics to search and get dependents

cons

====

=> The underlying container /server /framework may inject both necessary unnecessary dependent objs to target spring bean