Computer Networks – Lab Fall 2020

Momina Atif Dar P18-0030 Section B

Installing utilities after creating container using centos image:

Installing bind in container:

```
[root@762d427ea2b9 /]# yum install bind*
Failed to set locale, defaulting to C.UTF-8
Last metadata expiration check: 0:06:28 ago on Mon Oct 5 07:15:07 2020.
Package bind-export-libs-32:9.11.13-5.el8 2.x86 64 is already installed.
Dependencies resolved.
Package
                                          Architecture
                                                               Version
Installing:
bind
                                          x86 64
                                                               32:9.11.13-6.el
bind-chroot
                                          x86 64
                                                               32:9.11.13-6.el
bind-devel
                                          x86 64
                                                               32:9.11.13-6.el
bind-export-devel
                                          x86 64
                                                               32:9.11.13-6.el
bind-libs
                                          х8б б4
                                                               32:9.11.13-6.el
bind-libs-lite
                                          x86_64
                                                              32:9.11.13-6.el
```

Modifying ifcfg-ens3 file:

```
Generated by dracut initrd
NAME="ens3"
DEVICE="ens3"
ONBOOT="yes"
NETBOOT="yes"
UUID="82eebe16-4fc7-4de7-aff9-dafc78e97773"
IPV6INIT="yes"
BOOTPROTO="static"
TYPE="Ethernet"
PROXY_METHOD="none"
BROWSER ONLY="no"
DEFROUTE="yes"
IPV4_FAILURE_FATAL="no"
IPV6_AUTOCONF="yes"
IPV6_DEFROUTE="yes"
IPV6 FAILURE FATAL="no"
IPADDR=172.17.0.2
NETMASK=255.255.0.0
GATEWAY=172.17.0.1
<etc/sysconfig/network-scripts/ifcfg-ens3" 19L, 374C</pre>
                                                                    8,17
```

Modifying network file:

Modifying hosts file:

Modifying resolv.conf file:

Modifying named.conf file:

```
named.conf
// Provided by Red Hat bind package to configure the ISC BIND named(8) DNS
// server as a caching only nameserver (as a localhost DNS resolver only).
  See /usr/share/doc/bind*/sample/ for example named configuration files.
options {
       listen-on port 53 { 172.17.0.2; };
       listen-on-v6 port 53 { ::1; };
       directory
                       "/var/named";
                       "/var/named/data/cache_dump.db";
       dump-file
       statistics-file "/var/named/data/named stats.txt";
       memstatistics-file "/var/named/data/named_mem_stats.txt";
       secroots-file "/var/named/data/named.secroots";
       recursing-file "/var/named/data/named.recursing";
       allow-query
                       { any; };
        - If you are building an AUTHORITATIVE DNS server, do NOT enable recursi
"/etc/named.conf" 59L, 1701C
                                                               1,2
                                                                             Top
```

Modifying named.rfc1912.zones file:

```
// named.rfc1912.zones:
// Provided by Red Hat caching-nameserver package
// ISC BIND named zone configuration for zones recommended by
// RFC 1912 section 4.1 : localhost TLDs and address zones
// and https://tools.ietf.org/html/rfc6303
// (c)2007 R W Franks
// See /usr/share/doc/bind*/sample/ for example named configuration files.
// Note: empty-zones-enable yes; option is default.
// If private ranges should be forwarded, add
// disable-empty-zone "."; into options
zone "p180030.com" IN {
        type master;
        file "forward.zone";
        allow-update { none; };
};
zone "localhost" IN {
                                                               1,8
                                                                              Top
```

```
zone "0.17.172.in-addr.arpa" IN {
          type master;
          file "reverse.zone";
          allow-update { none; };
};
```

Modifying forward.zone file:

Modifying reverse.zone file:

Changing ownership of forward.zone and reverse.zone files:

```
[root@762d427ea2b9 /]# chgrp named /var/named/forward.zone
[root@762d427ea2b9 /]# chgrp named /var/named/reverse.zone
[root@762d427ea2b9 /]# _
```

Restarting service:

```
[root@762d427ea2b9 /]# service named restart
Redirecting to /bin/systemctl restart named.service
System has not been booted with systemd as init system (PID 1). Can't operate.
Failed to connect to bus: Host is down
[root@762d427ea2b9 /]# _
```

CLIENT SIDE:

Installing bind:

```
[root@b950982753e7 /]# yum install -y bind*
Failed to set locale, defaulting to C.UTF-8
Last metadata expiration check: 7:35:56 ago on Mon Oct 5 07:41:33 2020.
Package bind-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-chroot-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-devel-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-export-devel-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-export-libs-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-libs-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-libs-lite-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-license-32:9.11.13-6.el8 2.1.noarch is already installed.
Package bind-lite-devel-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-pkcs11-32:9.11.13-6.el8_2.1.x86_64 is already installed.
Package bind-pkcs11-devel-32:9.11.13-6.el8_2.1.x86_64 is already installed.
Package bind-pkcs11-libs-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-pkcs11-utils-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-sdb-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-sdb-chroot-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Package bind-utils-32:9.11.13-6.el8 2.1.x86 64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@b950982753e7 /]#
```

Modifying resolv.conf file: