First of all, I installed bind, dig, and nslookup. Then, I started editing /etc/named.conf by keeping the include statement and adding these options:

```
        listen-on port 53 { any; };

    directory "/var/named";     allow-

query { any; };
```

Moreover, I added 3 zones for the dundermifflin domain, the DMZ network, and the LAN network with a file statement each in the /etc/named/zones directory which I created under /etc/named. After that, I starting with editing the dundermifflin foreword dns file that I created. I started with a default TTL 1h and dns0 as a server with the system admin as the admin. After looking at the writeup I added the assigned serial number and refresh, retry, expire, and negative cache times. Then I defined the nameservers for the domain to be dns0 and dn1. Then I looked back at the writeup to check the A and CNAME records to set. After setting them using the syntax “name (TTL) IN RecordType IP/name”, I later found out that there was a problem setting a CNAME for dundermifflin.com. which I then had to change the CNAME record into an A record. Since I had to direct dundermifflin.com. to web0, I did so using web0’s ip address as “dundermifflin.com. IN A 100.64.22.3. While writing this, I realized that I had to add the time to live for this record which I did by adding 5m as dundermifflin.com. 5m IN A 100.64.22.3. Then, I edited the reverse dns files which I named db.100.64.22 and db.10.21.32. I started with a default TTL 1h and dns0 as a server with the system admin as the admin. After looking at the writeup I added the assigned serial number and refresh, retry, expire, and negative cache times. Then I defined the nameservers for the domain to be dns0 and dn1. After that, I added PTR records to each name with the last octet of their ip addresses as “octet TTL IN PTR name”. I had trouble setting recursion to no while allowing recursive dns from DMZ and LAN machines. Since I was going to do the extra credit I decided solving the problem using view statements. Hence, I created to views, internal (for dmz and lan networks) and external for

others. I copied the zones I already made into the internal view scope and added a matchclients statement on top with the dmz and lan subnets and a recursion yes statement.
After that, I copied the same zones except for the lan zone. However, I changed the file statement to two other new files I created for the external dundermifflin.com zone and external 22.64.100.in-addr.arpa zone (100.64.22 subnet). Then I created the external view zone files in the same directory /etc/named/zones. I basically copied the db.dundermifflin.com and db.100.64.22 zones files except for the LAN records. I also edited the nameservers configuration in dhcpd.conf in the router machine.