Using Netkit, implement the network depicted in the figure and described below.

- **server** is web servers running apache2; it serves a single default page containing “server”.
  - Remember to set a default route on all network nodes that do not act as routers.
- Routing within AS20 is implemented by using OSPF, with the following setup:
  - All the routers belong to the backbone area.
  - BGP is redistributed into OSPF (note: enabling redistribution automatically injects into OSPF only routes learned from E-BGP).
  - Interface eth2 of r2 is assigned the indicated cost.
- Routing within AS30 is implemented by using RIP, with the following setup:
  - BGP is redistributed into RIP.
- The BGP configuration is as follows:
  - Routers do not filter any updates.
  - No routers announce the default route.
  - AS20’s and AS30’s border routers also announce their own subnet, as an aggregated prefix indicated in the gray box.
- Warning: it may take several minutes (up to 5) for the peerings to be established and for the routing protocols to converge, even if the configuration is correct!

**Goals:**
The BGP peering, as well as OSPF and RIP routing must operate correctly.
**client** must be able to access web page `http://30.30.1.2/` using the `links` web browser.
Using Netkit, implement the network depicted in the figure and described below.

- **www** is web servers running apache2; it serves a single default page containing “www”.
  - Remember to set a default route on all network nodes that do not act as routers.
- Routing within AS40 is implemented by using OSPF, with the following setup:
  - All the routers belong to the backbone area.
  - BGP is redistributed into OSPF (note: enabling redistribution automatically injects into OSPF only routes learned from E-BGP).
  - Interface eth2 of r4 is assigned the indicated cost.
- Routing within AS50 is implemented by using RIP, with the following setup:
  - BGP is redistributed into RIP.
- The BGP configuration is as follows:
  - Routers do not filter any updates.
  - No routers announce the default route.
  - AS40’s and AS30’s border routers also announce their own subnet, as an aggregated prefix indicated in the gray box.
- Warning: it may take several minutes (up to 5) for the peerings to be established and for the routing protocols to converge, even if the configuration is correct!

**Goals:**
The BGP peering, as well as OSPF and RIP routing must operate correctly.
**Client** must be able to access web page `http://50.50.1.2/` using the **links** web browser.