Experiment no. 9

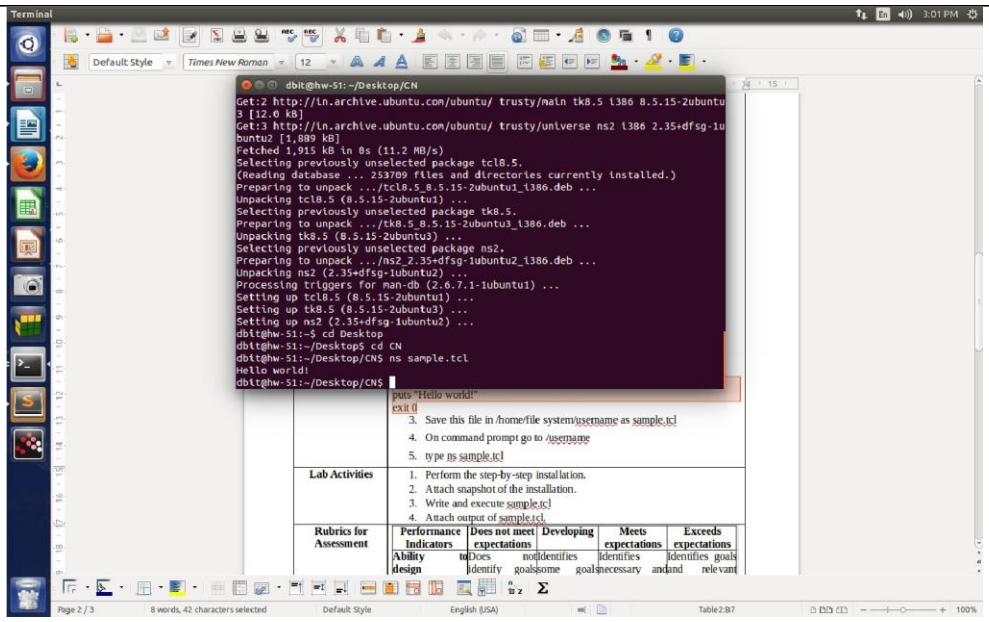
SEMESTER: V(2017-18) **DATE OF DECLARATION:**9/10/17

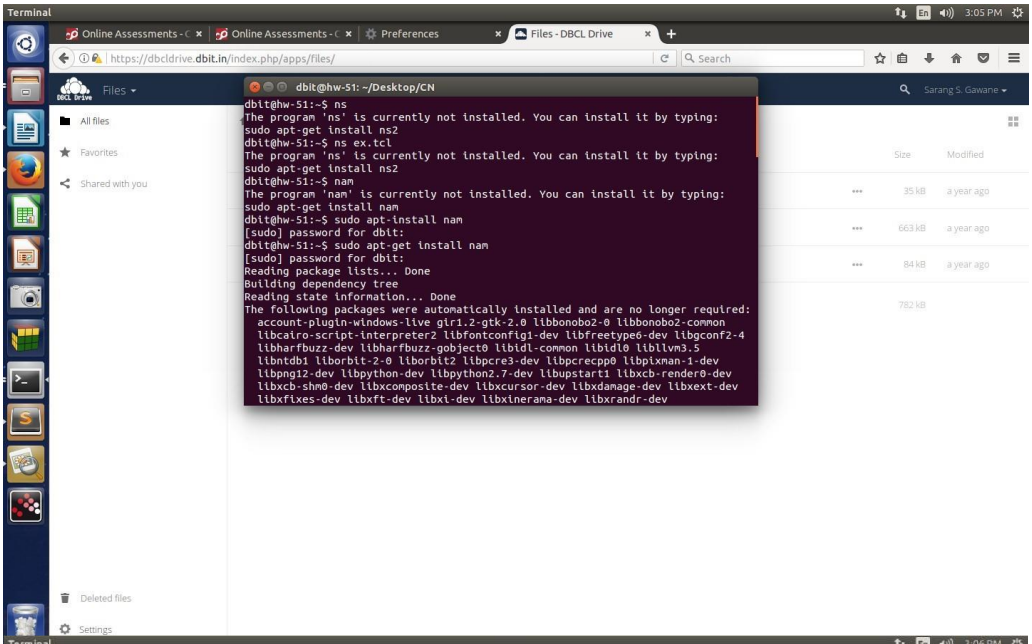
SUBJECT: CN **DATE OF SUBMISSION:**10/10/17

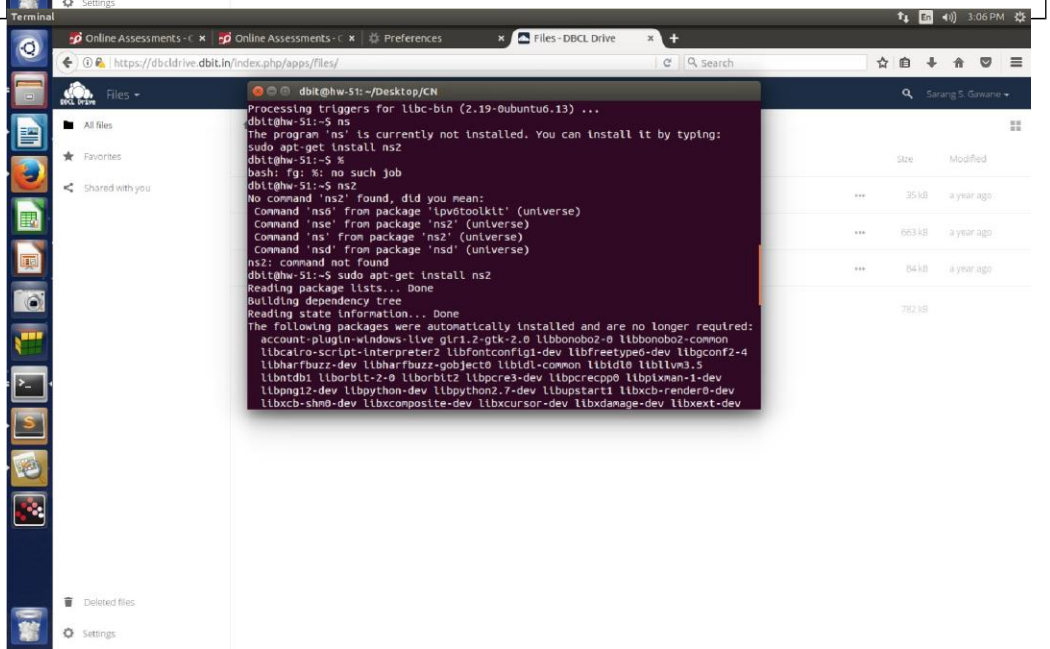
NAME OF THE STUDENT: Glady Thomas **ROLL NO.:**75

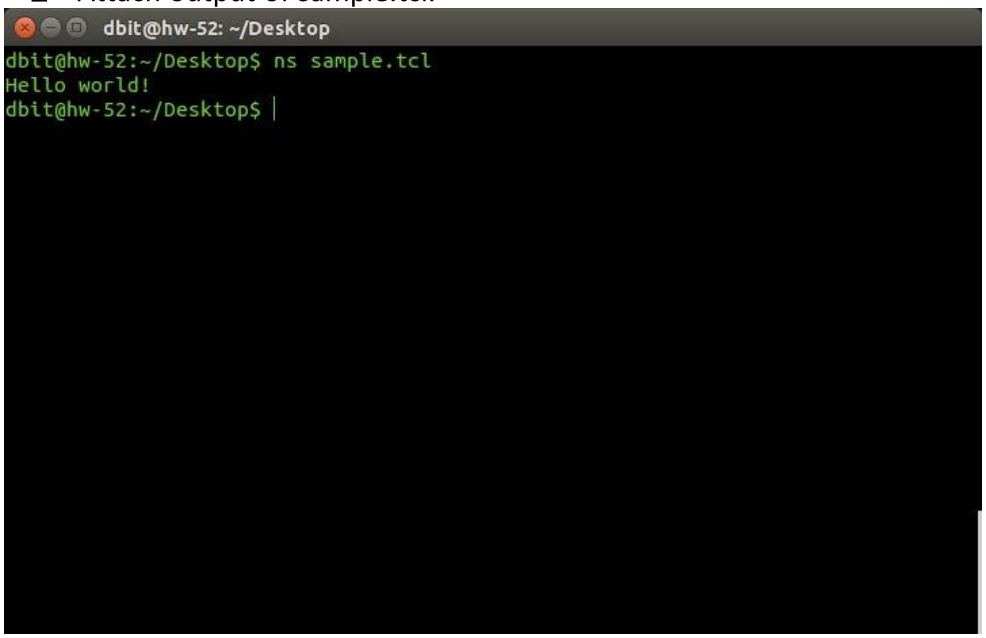
Aim	To install and configure NS2 in Linux environment.
Learning Objective	The student will perform step by step NS2 installation and configuration in Linux environment.
Learning Outcome	The student will install and configure NS2 in Linux environment.
Course Outcome	C304.5: Install and configure an open source tool NS2
Program Outcome	PO5: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities, with an understanding of the limitations.
Bloom's Taxonomy Level	Remember Understand Apply
Theory	Ns is a discrete event simulator targeted at networking research. Ns provides substantial support for simulation of TCP, routing, and multicast protocols over wired and wireless (local and satellite) networks. Ns began as a variant of the REAL network simulator in 1989 and has evolved substantially over the past few years. In 1995 ns development was supported by DARPA through the VINT project at LBL, Xerox PARC, UCB, and USC/ISI. Currently ns development is support through DARPA with SAMAN and through NSF with CONSER, both in collaboration with other researchers including ACIRI. Ns has always included substantal contributions from other researchers, including wireless code from the UCB Daedelus and CMU Monarch projects and Sun Microsystems. You can build ns either from the the various packages (Tcl/Tk, otcl, etc.), or you can download an 'all-in-one' package.

	Steps for installation: **Part I: Installation** 1. Remove network proxy with the password. 2. Type 10.0.3.254.3142 3. Copy Acquire::http { Proxy "http://10.0.3.254:3142"; }; 4. Go to terminal and type cd/etc/apt/apt.conf.d/ and enter 5. sudo vi 02proxy with the password. 6. Paste Acquire::http { Proxy "http://10.0.3.254:3142"; }; 7. Type sudo apt-get update 8. sudo apt-get install ns2 **Part II: Verifying** which ns **Steps for Configuration:** 1. Open new odt file. 2. Write following script in that file #! /bin/env tclsh puts "Hello world!" exit 0 3. Save this file in /home/file system/username as sample.tcl 4. On command prompt go to /username 5. type ns sample.tcl
Lab Activities	Perform the step-by-step installation. Attach snapshot of the installation.


Terminal
dbit@hw-51: ~/Desktop/CN
Get:2 http://ln.archive.ubuntu.com/ubuntu/ trusty/main tk8.5 i386 8.5.15-2ubuntu3 [12.0 kB]
Get:3 http://ln.archive.ubuntu.com/ubuntu/ trusty/universe ns2 i386 2.35+dfsg-1ubuntu2 [1,889 kB]
Fetched 1,915 kB in 0s (11.2 MB/s)
Selecting previously unselected package tcl8.5.
(Reading database ... 253709 files and directories currently installed.)
Preparing to unpack .../tcl8.5_8.5.15-2ubuntu1_i386.deb ...
Unpacking tcl8.5 (8.5.15-2ubuntu1) ...
Selecting previously unselected package tk8.5.
Preparing to unpack .../tk8.5_8.5.15-2ubuntu3_i386.deb ...
Unpacking tk8.5 (8.5.15-2ubuntu3) ...
Selecting previously unselected package ns2.
Preparing to unpack .../ns2_2.35+dfsg-1ubuntu2_i386.deb ...
Unpacking ns2 (2.35+dfsg-1ubuntu2) ...
Processing triggers for man-db (2.6.7.1-1ubuntu1) ...
Setting up tcl8.5 (8.5.15-2ubuntu1) ...
Setting up tk8.5 (8.5.15-2ubuntu3) ...
Setting up ns2 (2.35+dfsg-1ubuntu2) ...
dbit@hw-51:~$ cd Desktop
dbit@hw-51:~/Desktop$ cd CN
dbit@hw-51:~/Desktop/CN$ ns sample.tcl
Hello world!
dbit@hw-51:~/Desktop/CN$
puts "Hello world!"
exit 0
3. Save this file in /home/file system/username as sample.tcl
4. On command prompt go to /username
5. type ns sample.tcl
Lab Activities
1. Perform the step-by-step installation.
2. Attach snapshot of the installation.
3. Write and execute sample.tcl
4. Attach output of sample.tcl.
Rubrics for Assessment
Performance Indicators
Does not meet expectations
Developing
Meets expectations
Exceeds expectations
Ability to design
identify goals
some goals
necessary and
identifies goals and relevant


Terminal
Online Assessments - C
Online Assessments - C
Preferences
Files - DBCL Drive
https://dbcldrive.dbit.in/index.php/apps/files/
dbit@hw-51: ~/Desktop/CN
dbit@hw-51:~$ ns
The program 'ns' is currently not installed. You can install it by typing:
sudo apt-get install ns2
dbit@hw-51:~$ ns ex.tcl
The program 'ns' is currently not installed. You can install it by typing:
sudo apt-get install ns2
dbit@hw-51:~$ nam
The program 'nam' is currently not installed. You can install it by typing:
sudo apt-get install nam
dbit@hw-51:~$ sudo apt-install nam
[sudo] password for dbit:
dbit@hw-51:~$ sudo apt-get install nam
[sudo] password for dbit:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
account-plugin-windows-live gir1.2-gtk-2.0 libbonobo2-0 libbonobo2-common
libcairo-script-interpreter2 libfontconfig1-dev libfreetype6-dev libgconf2-4
libharfbuzz-dev libharfbuzz-gobject0 libidl-common libidl0 libllvm3.5
libntdb1 liborbit-2-0 liborbit2 libpcre3-dev libpcrecpp0 libpixman-1-dev
libpng12-dev libpython-dev libpython2.7-dev libupstart1 libxcb-render0-dev
libxcb-shm0-dev libxcomposite-dev libxcursor-dev libxdamage-dev libxext-dev
libxfixes-dev libxft-dev libxi-dev libxinerama-dev libxrandr-dev
Files
All files
Favorites
Shared with you
Deleted files
Settings
Sarang S. Gawane


Terminal
Online Assessments - C
Online Assessments - C
Preferences
Files - DBCL Drive
https://dbcldrive.dbit.in/index.php/apps/files/
dbit@hw-51: ~/Desktop/CN
Processing triggers for libc-bin (2.19-0ubuntu6.13) ...
dbit@hw-51:~$ ns
The program 'ns' is currently not installed. You can install it by typing:
sudo apt-get install ns2
dbit@hw-51:~$ %
bash: fg: %: no such job
dbit@hw-51:~$ ns2
No command 'ns2' found, did you mean:
Command 'ns6' from package 'ipv6toolkit' (universe)
Command 'nse' from package 'ns2' (universe)
Command 'ns' from package 'ns2' (universe)
Command 'nsd' from package 'nsd' (universe)
ns2: command not found
dbit@hw-51:~$ sudo apt-get install ns2
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
account-plugin-windows-live gir1.2-gtk-2.0 libbonobo2-0 libbonobo2-common
libcairo-script-interpreter2 libfontconfig1-dev libfreetype6-dev libgconf2-4
libharfbuzz-dev libharfbuzz-gobject0 libidl-common libidl0 libllvm3.5
libntdb1 liborbit-2-0 liborbit2 libpcre3-dev libpcrecpp0 libpixman-1-dev
libpng12-dev libpython-dev libpython2.7-dev libupstart1 libxcb-render0-dev
libxcb-shm0-dev libxcomposite-dev libxcursor-dev libxdamage-dev libxext-dev
Files
All files
Favorites
Shared with you
Deleted files
Settings
Sarang S. Gawane

	• Write and execute sample.tcl • Attach output of sample.tcl. 
References	1. http://www.isi.edu/nsnam/ns/ns-build.html#allinone 2. http://sourceforge.net/projects/nsnam/files/allinone/ns-allinone-2.35/ns-allinone-2.35.tar.gz/download 3. http://www.isi.edu/nsnam/ns/doc/ns_doc.pdf