

# ASSIGNMENT

**SUBJECT :20MCA107 - Advanced Software Engineering**

**Topic:Centralized Version control system**

TO,

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To work in a centralised version control system ,i choosed Apache Subversion and installed in my ubuntu.To create a new repository i used the following commands.

```
$ sudo mkdir -p /opt/svn
```

```
$ sudo svnadmin create /opt/svn/sampleproject
```

```
$ sudo chown -R www-data:www-data /opt/svn/sampleproject/
```

```
$ sudo chmod -R 775/ opt/svn/sampleproject
```

To add Subversion user used the following command and given a password.

```
$ sudo htpasswd -cm /etc/svn-auth-users arjun
```

To Apache virtual host file for SVN ,changed the directory using the following command

```
$ cd /etc/apache2/sites-available/
```

The created a virtual host file by following command

```
$ sudo gedit samprojectsvn.conf
```

Added following lines to file.

```
<VirtualHost *:80>
    ServerName arjun
    ServerAlias arjun
    <Location /svn>
        DAV svn
        SVNParentPath /opt/svn
        AuthType Basic
        AuthName "Subversion Repository"
        AuthUserFile /etc/svn-auth-users
        Require valid-user
    </Location>
    ErrorLog ${APACHE_LOG_DIR}/arjun-error.log
    CustomLog ${APACHE_LOG_DIR}/arjun-access.log combined
</VirtualHost>
```

Then saved and exit the file.

To stop default host file used following command,

```
sudo a2dissite 000-default.conf
```

Then enabled newly created virtual host file and restarted apache by follwing command .

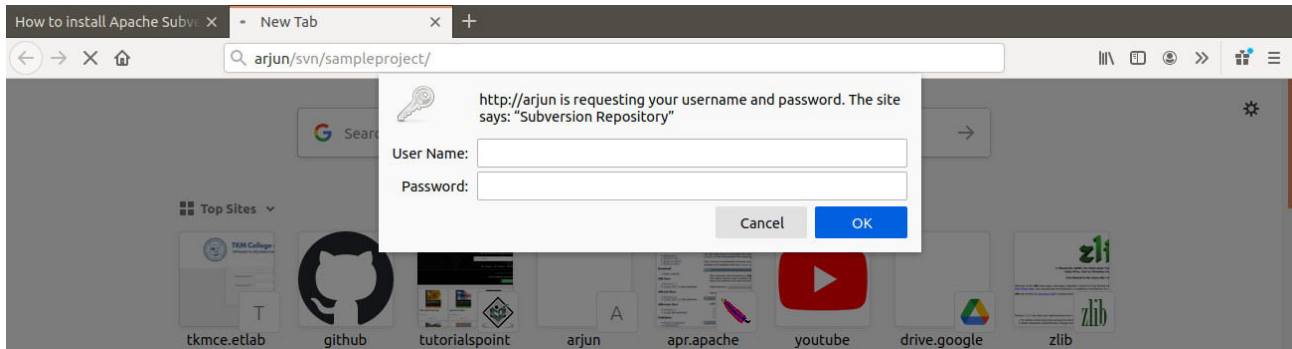
```
$ sudo a2ensite samprojectsvn.conf
```

```
$ sudo apachectl -t
```

```
$sudo systemctl restart apache2
```

To view the created repository by going to the browser and using following link ,<http://arjun/svn/sampleproject/>

Then will get the Authentication popup screen like below, enter the already created Username and Password to access svn repository.

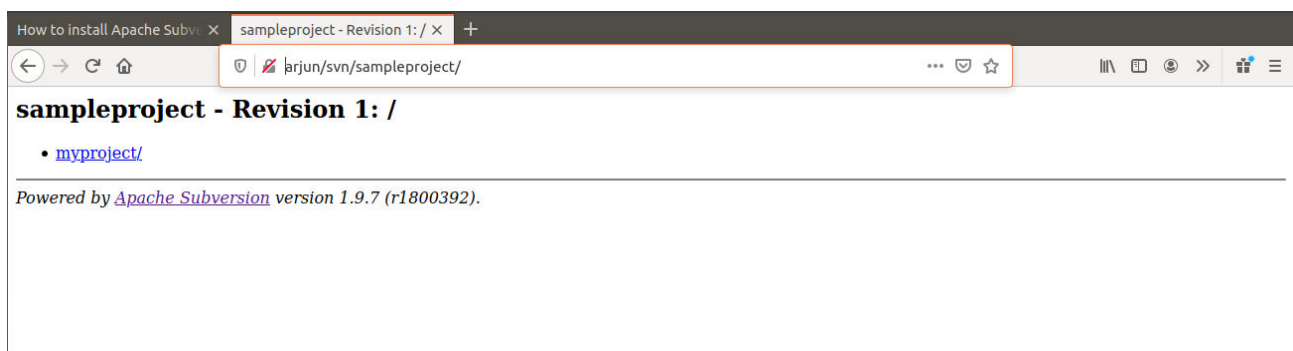


After authentication it redirects to the repository like below.



To create a new project called “myproject ” inside the repository.

```
$ sudo svn mkdir file:///opt/svn/sampleproject/myproject -m "added myproject repository"
```



```
$ sudo svn mkdir file:///opt/svn/sampleproject/myproject/project1 -m "added project1 to repository"
```

```
$ sudo svn mkdir file:///opt/svn/sampleproject/myproject/project2 -m "added project2 to repository"
```

```
$ sudo svn mkdir file:///opt/svn/sampleproject/myproject/project3 -m "added project3 to repository"
```

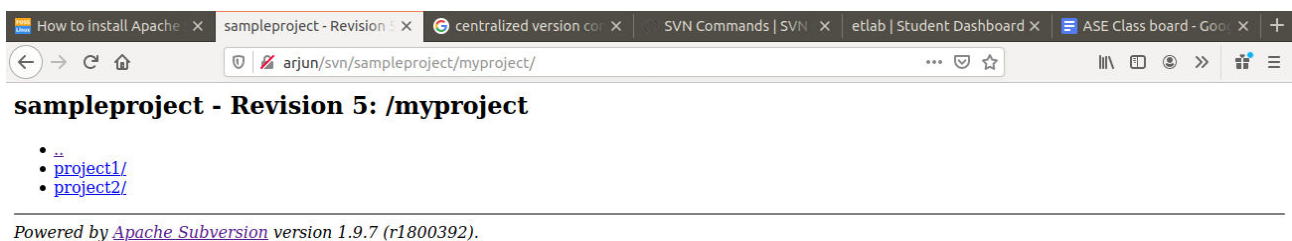


Click and Open “myproject”, which view like below,



To **delete** a created project,

```
$ sudo svn delete file:///opt/svn/sampleproject/myproject/project3 -m "delete project3 repository"
```



## SVN Checkout

Checkout command is used to download sources from SVN repository to working copy.

```
$ sudo svn checkout http://arjun/svn/sampleproject/
```

## SVN Add

To add a new file (or directory) to the repository we use SVN add command.

```
$ sudo svn add readme.txt
```

## SVN commit

Whenever the changes to the working copy, it will not reflect in SVN server. To make the changes permanent, need to do SVN commit.

```
$ sudo svn commit -m "adding readme.txt" readme.txt
```



## SVN Status

Use svn status command to get the status of the file in the working copy. It displays whether the working copy is modified, or its been added/deleted.

After modifying readme.txt

\$ sudo svn status

```
arjun@arjun:~/Desktop/sample pro/sampleproject/myproject/project1$ sudo svn status
M      readme.txt
arjun@arjun:~/Desktop/sample pro/sampleproject/myproject/project1$
```

## SVN Diff

SVN diff displays the differences between your working copy and the copy in the SVN repository. Added a new file called new.txt and checking the difference by following commands.

\$ sudo svn add new.txt

\$ sudo svn diff

```
arjun@arjun:~/Desktop/sample pro/sampleproject/myproject/project1$ sudo svn add new.txt
A      new.txt
arjun@arjun:~/Desktop/sample pro/sampleproject/myproject/project1$ sudo svn diff
Index: new.txt
-----
--- new.txt      (nonexistent)
+++ new.txt      (working copy)
@@ -0,0 +1 @@
+third document
Index: readme1.txt
-----
--- readme1.txt  (nonexistent)
+++ readme1.txt  (working copy)
@@ -0,0 +1 @@
+second text file
arjun@arjun:~/Desktop/sample pro/sampleproject/myproject/project1$
```

After commit server repository updates as given below.

