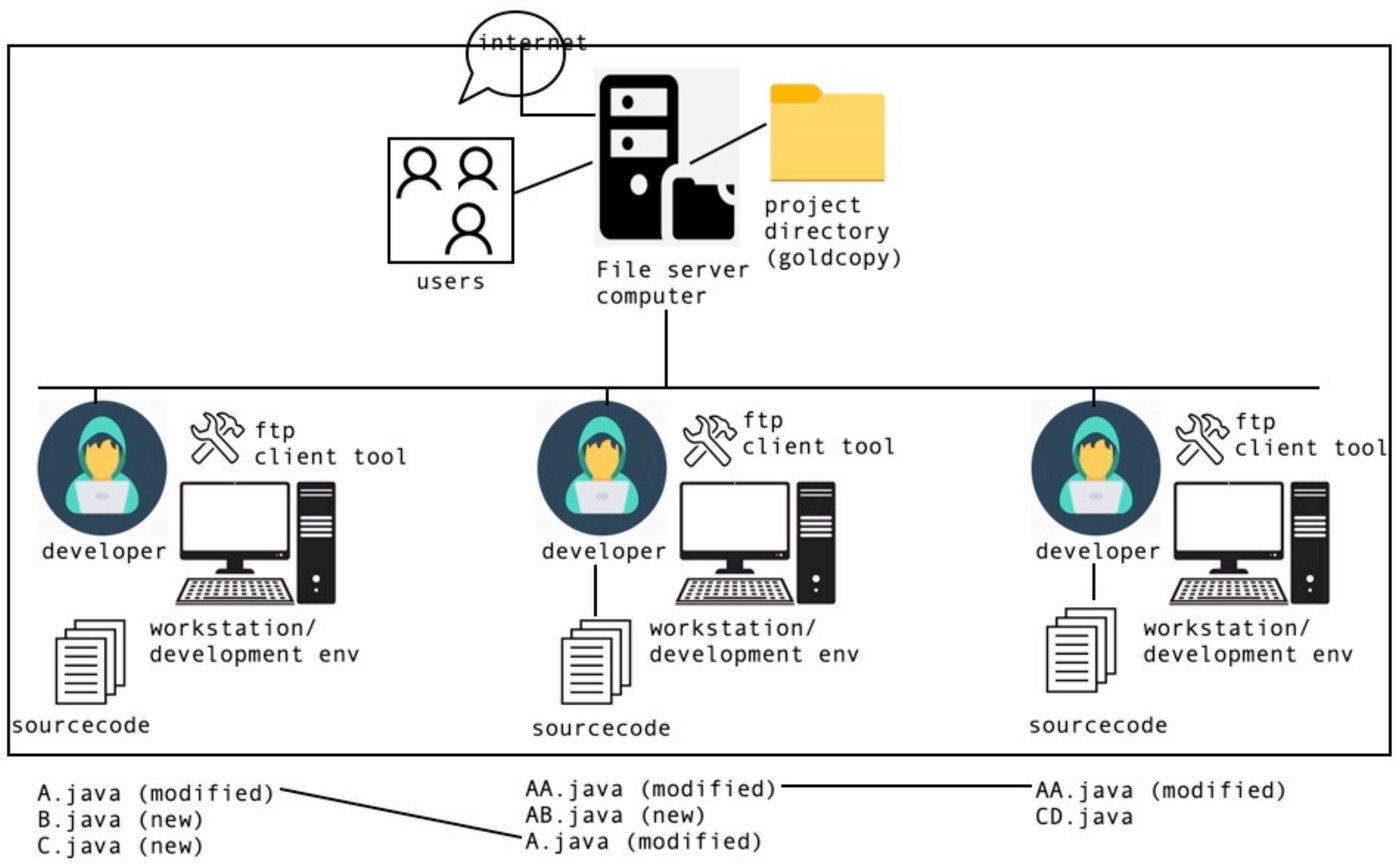

File Server:
A file server is an software that is installed on an computer, through which we can distribute the files/directories of an machine in controlled way to the people around the world.

The users are created with user accounts (username/password) granting access permissions to the files/folders of the directories on the FTP Server.
The developer has to have an FTPClient Software installed on their machine through which there are going to access the files/folders on the FTP Server

How does the developers Collaborate and develop the software application?
It is equally same as how do the developers does the development while using Network directory location
1. The initial project has to be created/setup by an architect/lead or an member of the team and pass it to the FTP Server administrator asking it to be distributed to the members of the Team

2. The FTP Server administrator creates user accounts for each developer/member of the team granting access rights or permissions allowing the users to access the files/folders of the project

3. upload the initial project code on to the ftp Server by the administrator which is called “gold copy”

4. all the members of the team daily before starting their developer has to create an working copy from the gold copy of the server by authenticating themself and accessing them using the FTPTool

5. Let each individual developer work on their individual local copies of the code independently. while making changes let the developers maintain an changeset

6. EOD all the developers has to assemble their local copies into final copy and verify it, so that it can placed as an gold copy onto the FTP Server

Advantages:-
1. highly secured, each user must and should have to autheticate themself with the FTP Server before accessing the files/folders.
2. Everyone cannot be allowed to perform any operation, the users are restricted through access permissions in performing the operations on the files/folders
3. The FTP Servers maintaince audit/access logs through which we can get the details of
  3.1 who are the users logged-in into the FTP Servers, from which remote ip address/location
  3.2 what operations are performed on the Files/directories
  3.3 who has uploaded/downloaded the files of what capacity
all such information will be tracked and recorded by the FTP Servers, that helps us in monitoring and eliminating the fraud/access violation
4. The FTP Servers are capable of transferring large/huge files over the network with retransmission capabilities
5. all the data that is transferred over the network is secured since FTP Servers supports sftp protocol

dis-advantages:-
even though the FTP Server has solved the problems with network directory locations to some extent, still many of the problems persisted here as well
1. each developer has to maintain the changeset document what files/folders are newly created or modified.
2. eod all the developers has to assemble and identify their changes and merge them into final copy which will takes substantial amount of time killing the developers productivity in building the application
3. sometimes while merging the files, there is always a chance that one developer changes might be overlapped by others, which would results in permanent loss of changes of a developer and there is no way to recover it back
4. there is no backup or restore incase of disk crash on the FTP Server
5. everyone who can login into the FTP Server computer would have access to the Filesystem directories thus making it insecure.

How to overcome the above problems in managing, distributing and colloborating the sourcecode for development?
That is where sourcecode management repositories or version control tools are introduced. These source code management repositories can be classified into #2 categories/groups

1. Gen-I (lock-modify-unlock)
  1.1 Visual Source Safe
  1.2 WinCVS
  1.3 PVCS
  1.4 Perforce

2. Gen-II (copy-modify-merge)
  2.1 SVN (Subversion)
  2.2 GIT