



DRILLVCS

VERSION CONTROL SYSTEM FOR ANYONE

--SATYENDRA CHANDAN



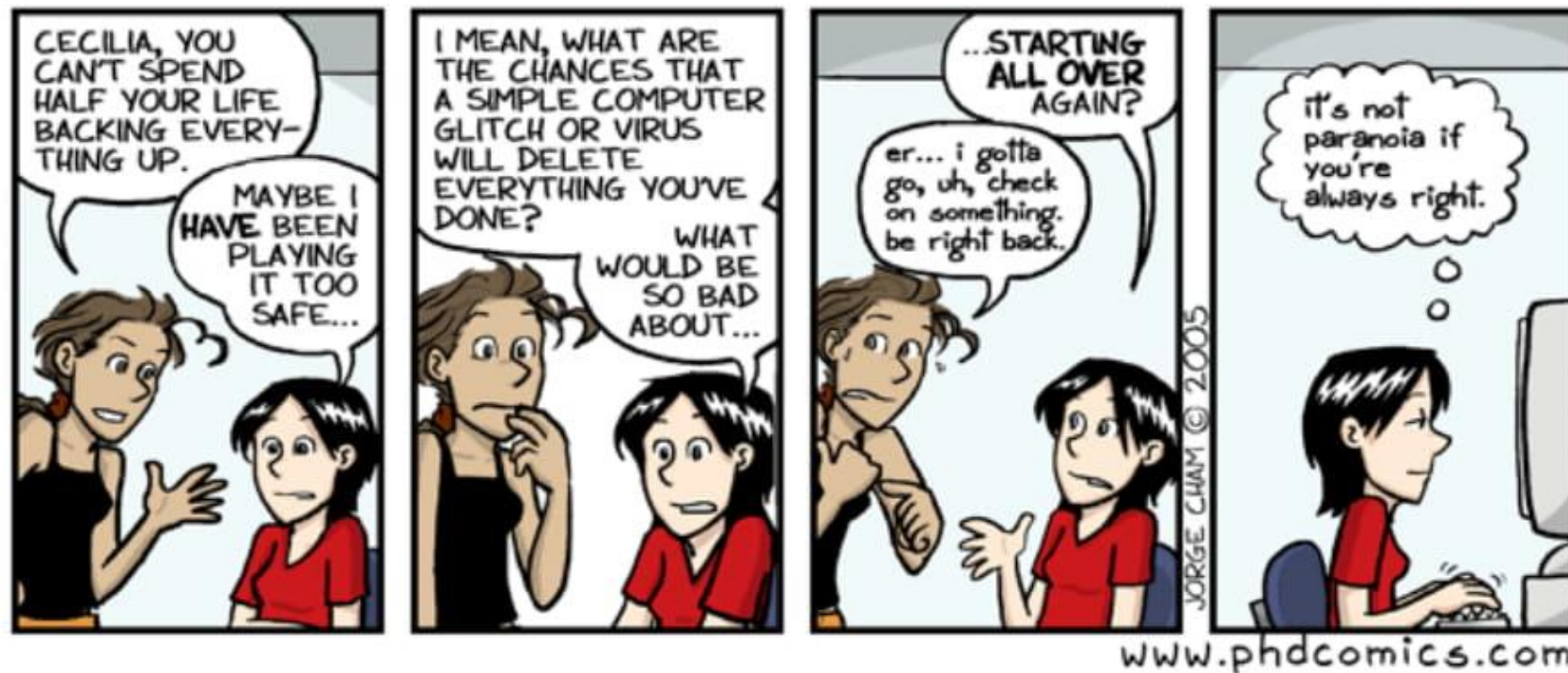
problem?

When you need version control

- ▶ Complex documents, built up over time.
- ▶ Multiple collaborators (or even just multiple machines).
- ▶ Multiple versions which 'co-evolve.'
- ▶ Reproducibility ('snapshots').

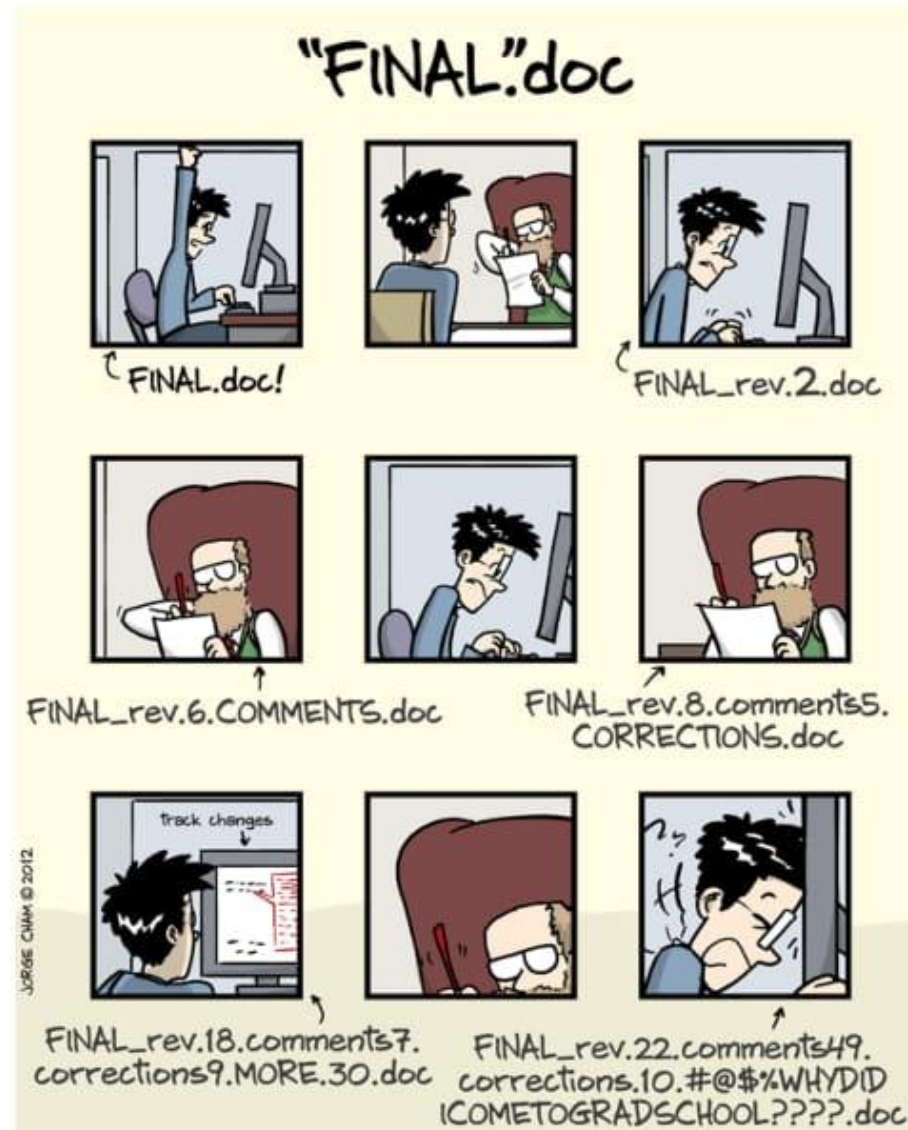
Four Evolutionary Stages

Stage 0: Not backing up



DON'T DO THIS

Stage 1: Manual copies



Stage 1: Manual copies

Flaws:

- ▶ Manual = fallible.
- ▶ Backup: Copies of copies.
- ▶ Labelling.

We need **metadata** - timestamps, annotations, attribution.

And **tools** - make this stuff quick and easy!

Aside: 'Cloudy' technologies



Trade off — convenience vs control.
Good for:

- ▶ Small docs, frequently updated across multiple locations (e.g. to-do list).
- ▶ Basic backups of items unlikely to evolve (photos, etc).

Aside: 'Cloudy' technologies



Problems:

- ▶ Versioning is all automated - can't choose sensible 'checkpoints' to mark out.
- ▶ Collaboration is still broken, unless you're working on very simple docs.

NEED MORE METADATA

Stage Two

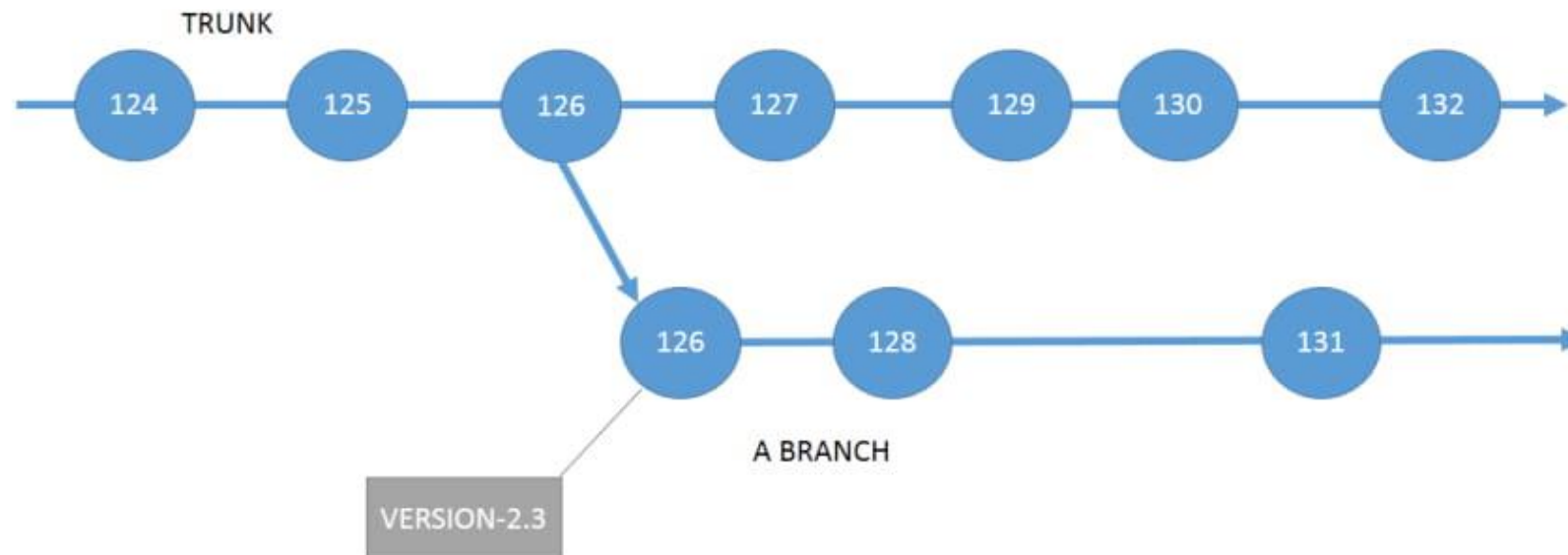
Centralised version control

DrillVCS

Version Control system for anyone

Basic concepts, 1

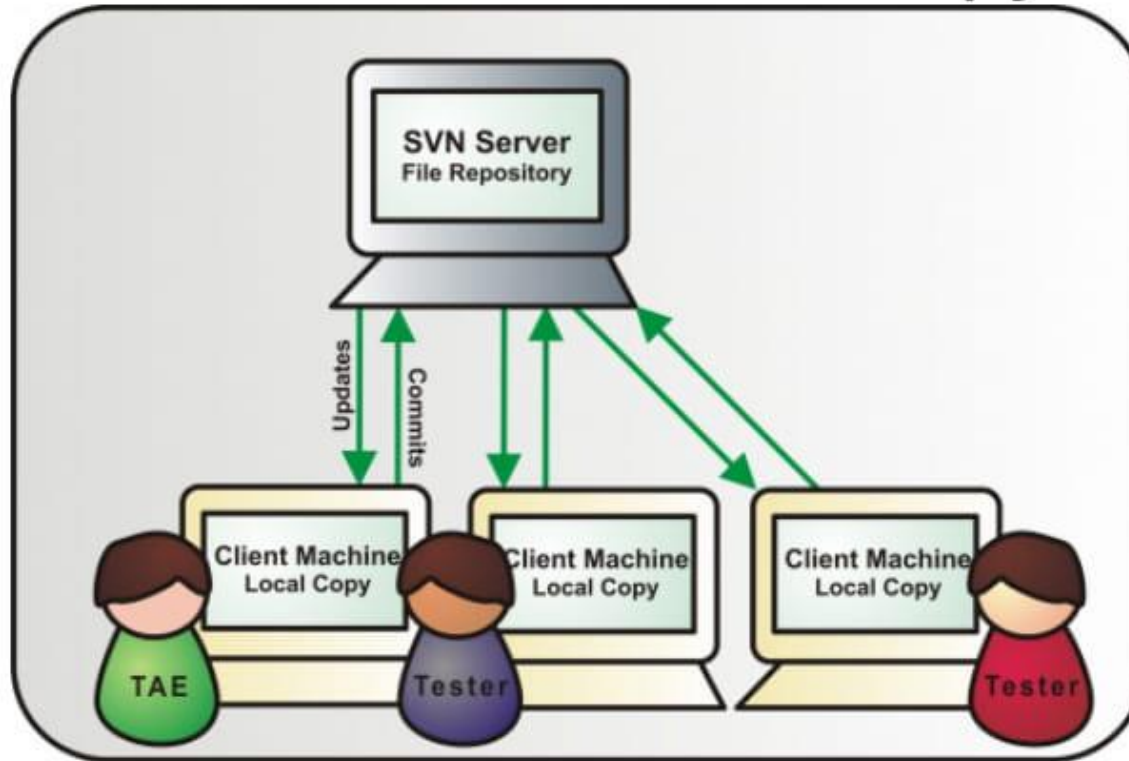
Record an annotated history of change sets.



- ▶ Trunk, branch
- ▶ Parents, ancestors

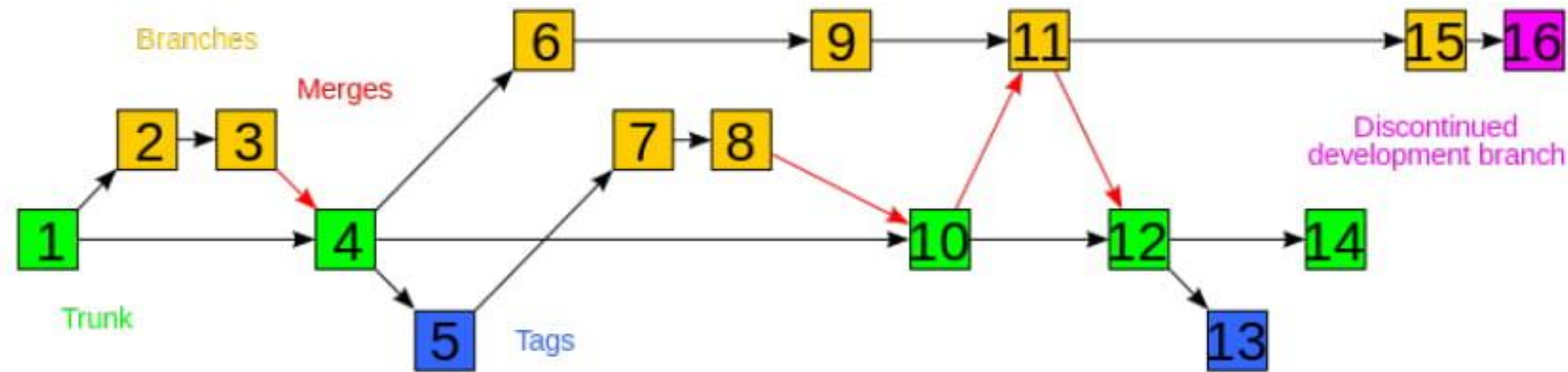
Basic concepts, 2

Centralized \leftrightarrow Master copy



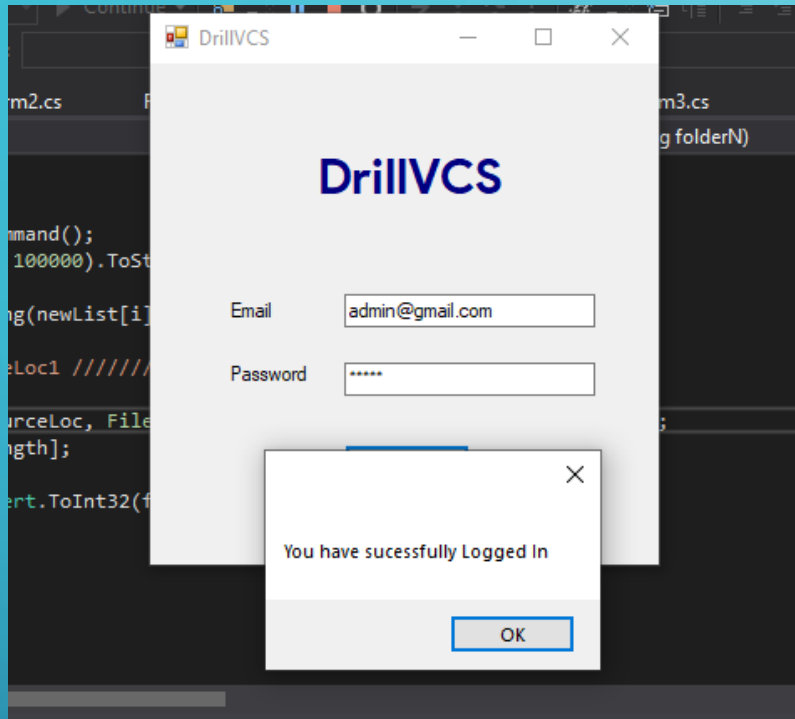
- ▶ Repository
- ▶ Checkout
- ▶ Commit / Revision

Basic concepts, 3

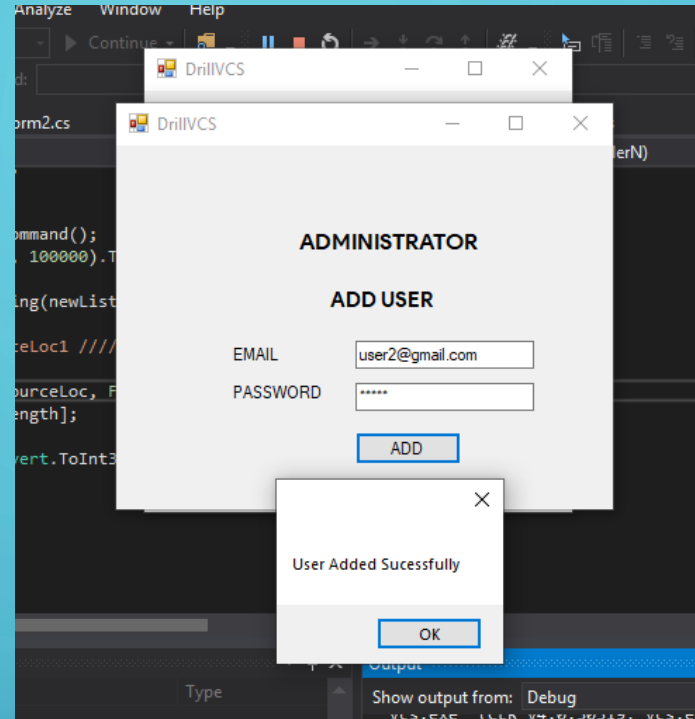


Merging

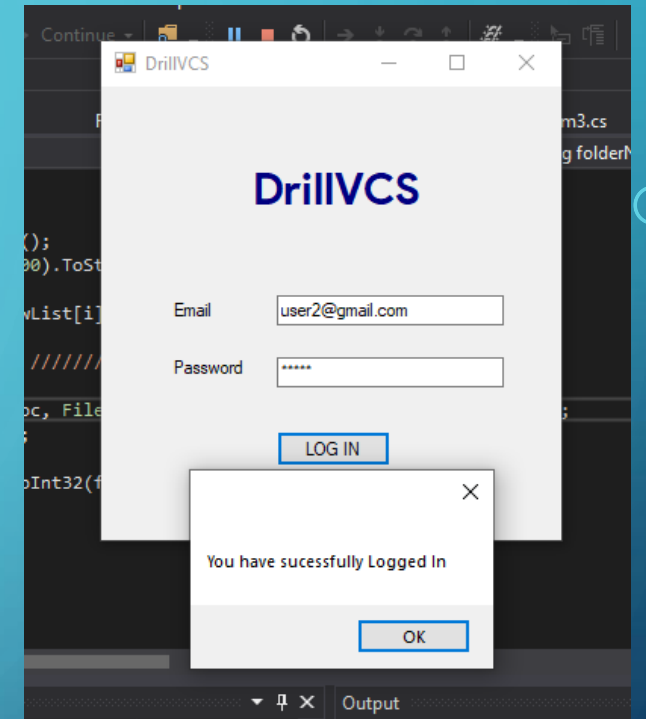
In simple cases, merges are automatic!
Tree-records allows us to build the new combined version.



Administrator Login

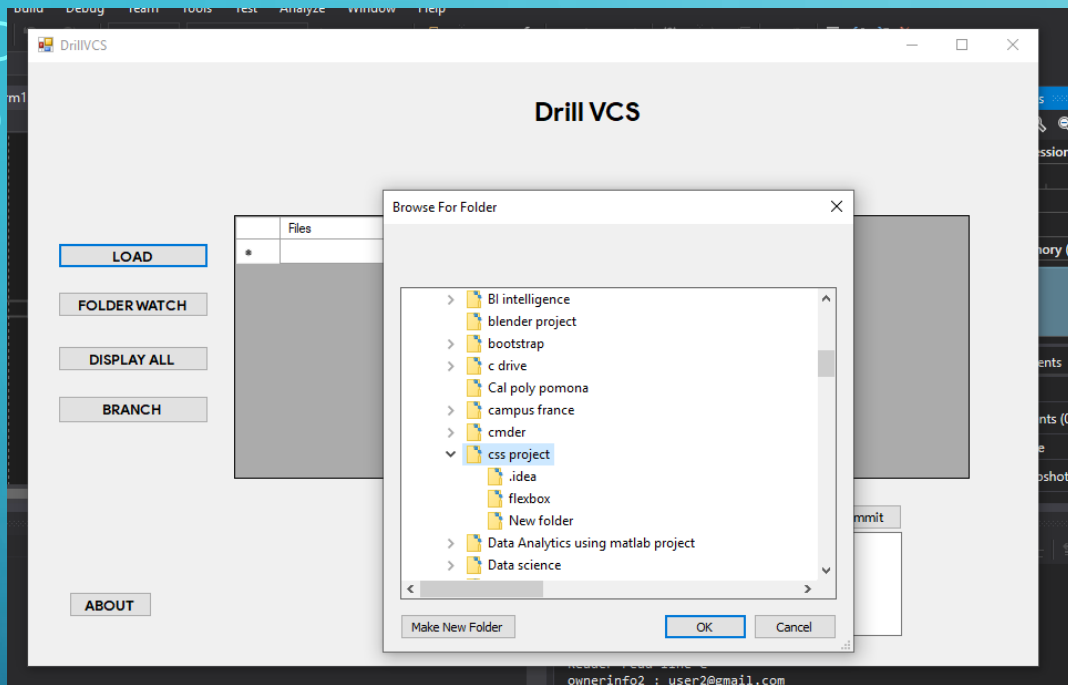


Administrator can add user

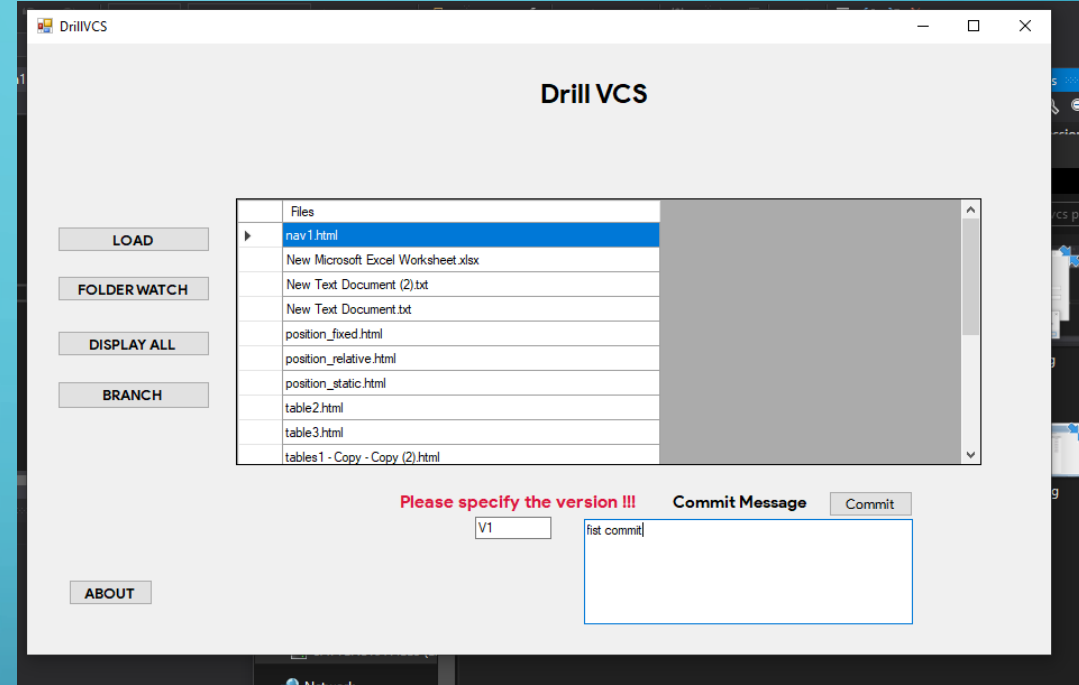


Client Login

DrillVCS



Load the project



List the files in the project

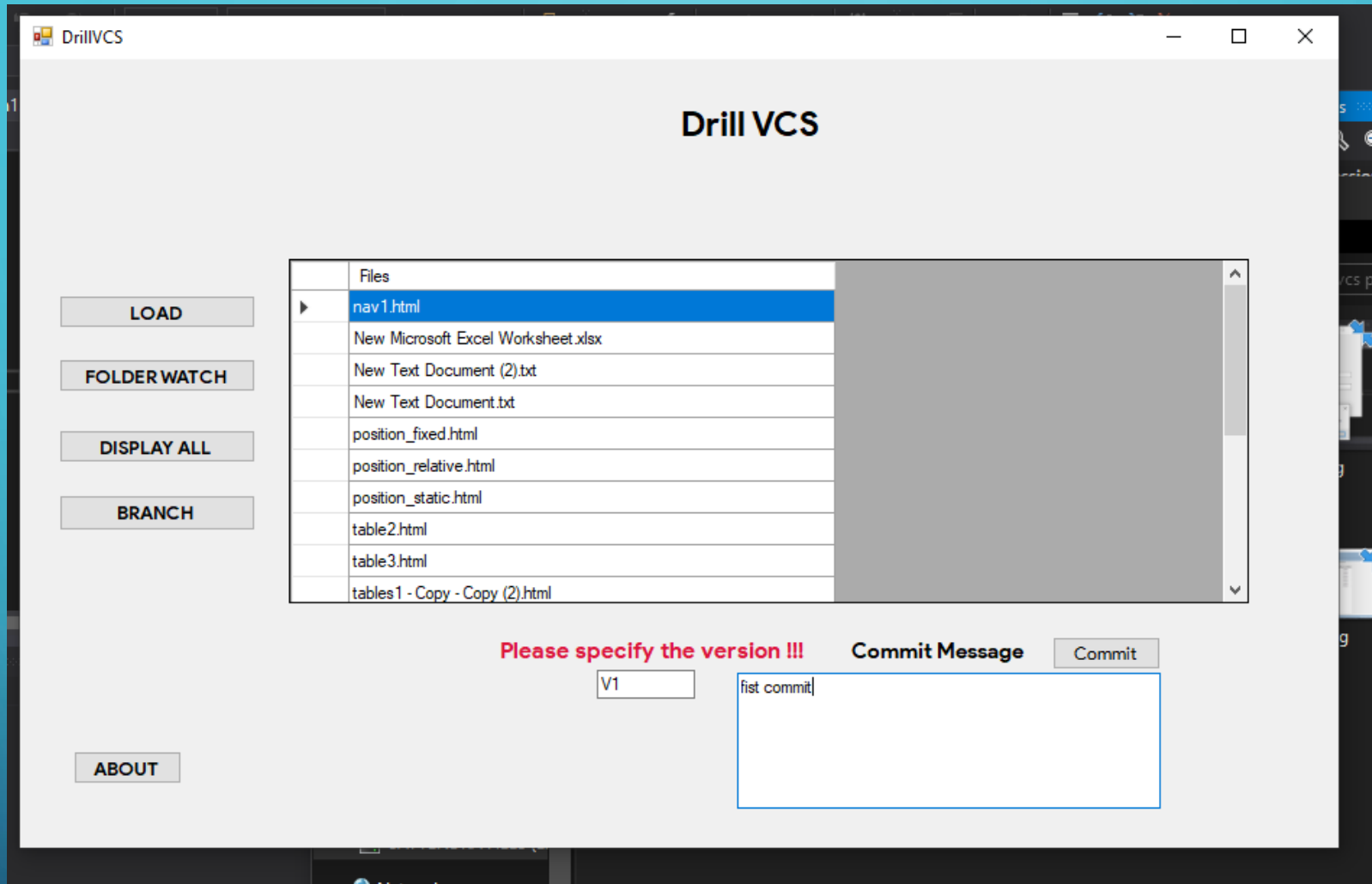
Technology used:
C# .Net
Oracle Database

SYSTEM.VCS_DATABASE		
P *	ID	VARCHAR2 (90 BYTE)
	COMMIT	VARCHAR2 (190 BYTE)
	FILESTORE	BLOB
	VERSION_N	VARCHAR2 (90 BYTE)
	FILENAME	VARCHAR2 (90 BYTE)
	DIRECTORY_NAME	VARCHAR2 (300 BYTE)
	RANDOM_NUMBER	VARCHAR2 (90 BYTE)
F	OWNER	VARCHAR2 (90 BYTE)
	DATE_NOW	VARCHAR2 (90 BYTE)
VCS_DATABASE_PK (ID)		
VCS_DATABASE_FK1 (OWNER)		
VCS_DATABASE_PK (ID)		

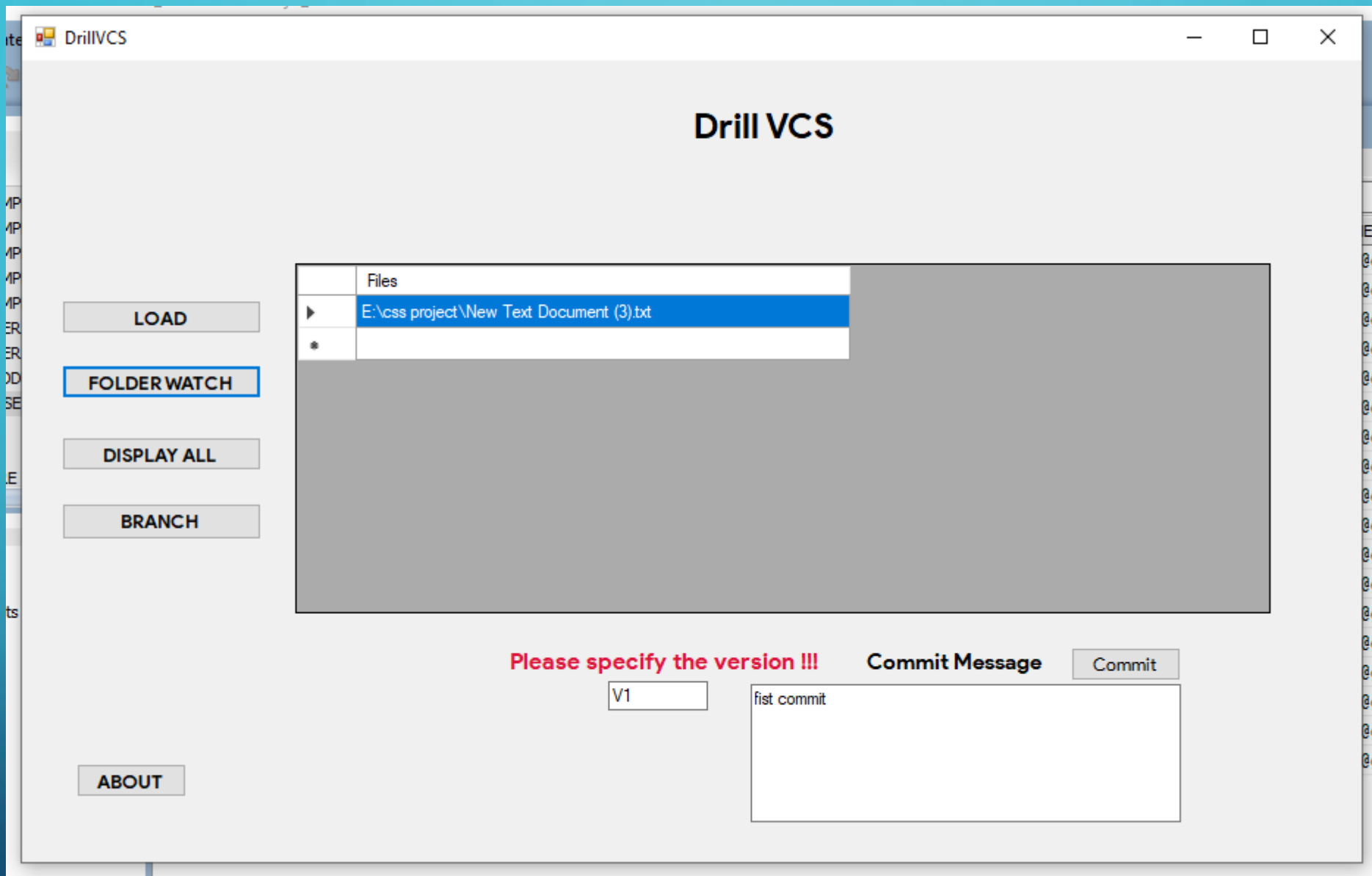


SYSTEM.ACCOUNTDRILLVCS		
P *	EMAIL	VARCHAR2 (90 BYTE)
	PASSWORD	VARCHAR2 (90 BYTE)
	USER_TYPE	CHAR (1 BYTE)
ACCOUNTDRILLVCS_PK (EMAIL)		
ACCOUNTDRILLVCS_PK (EMAIL)		

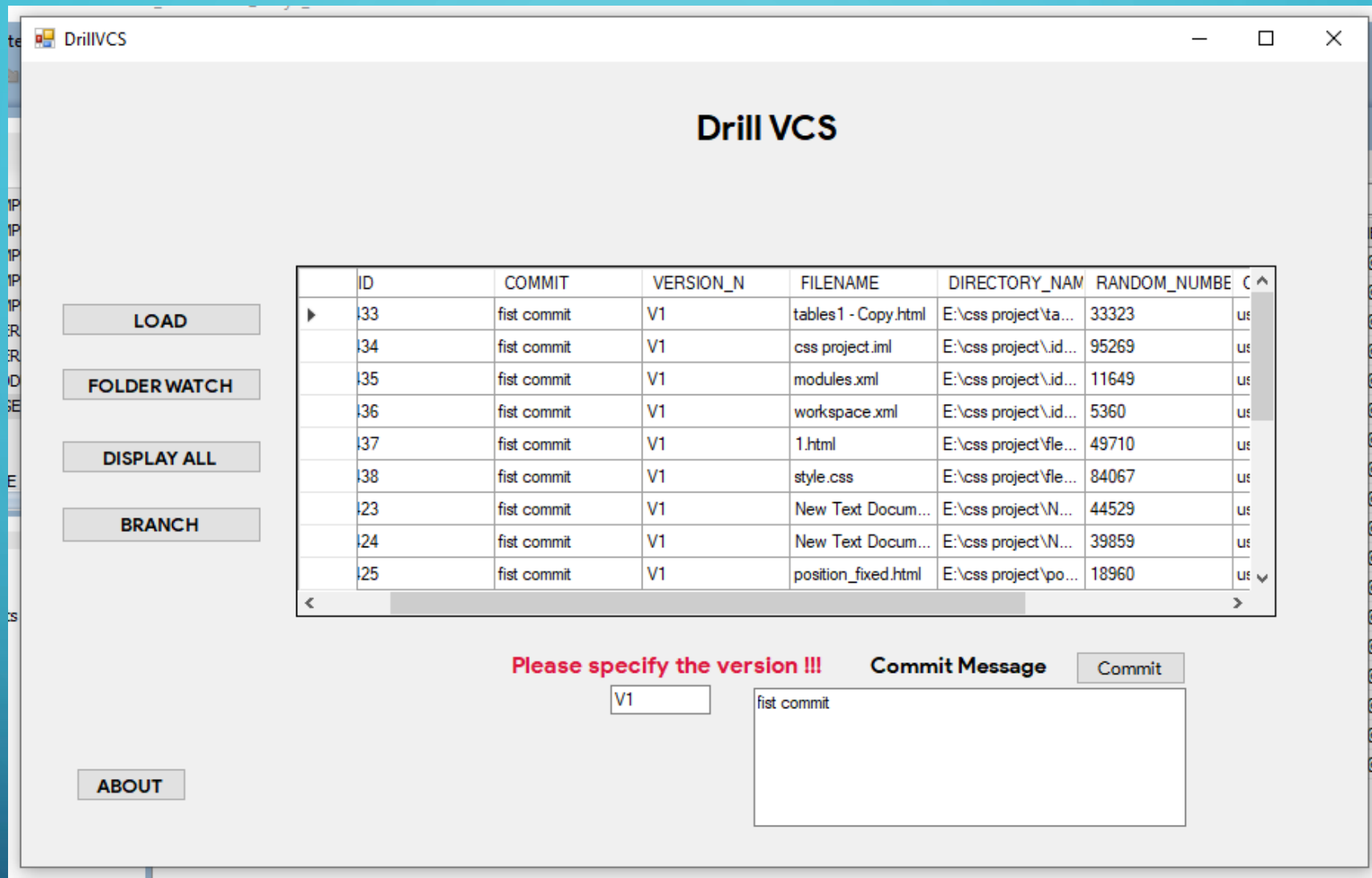
DATABASE SCHEMA



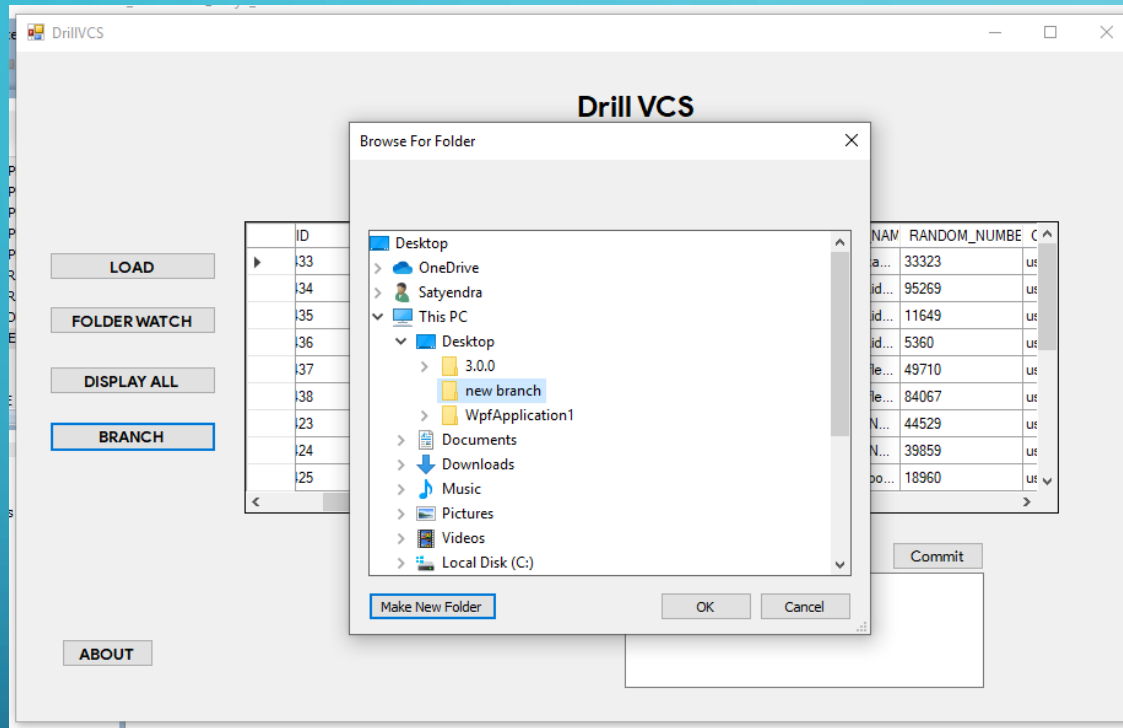
Specify the version number and commit message and press commit
Files are added to the database



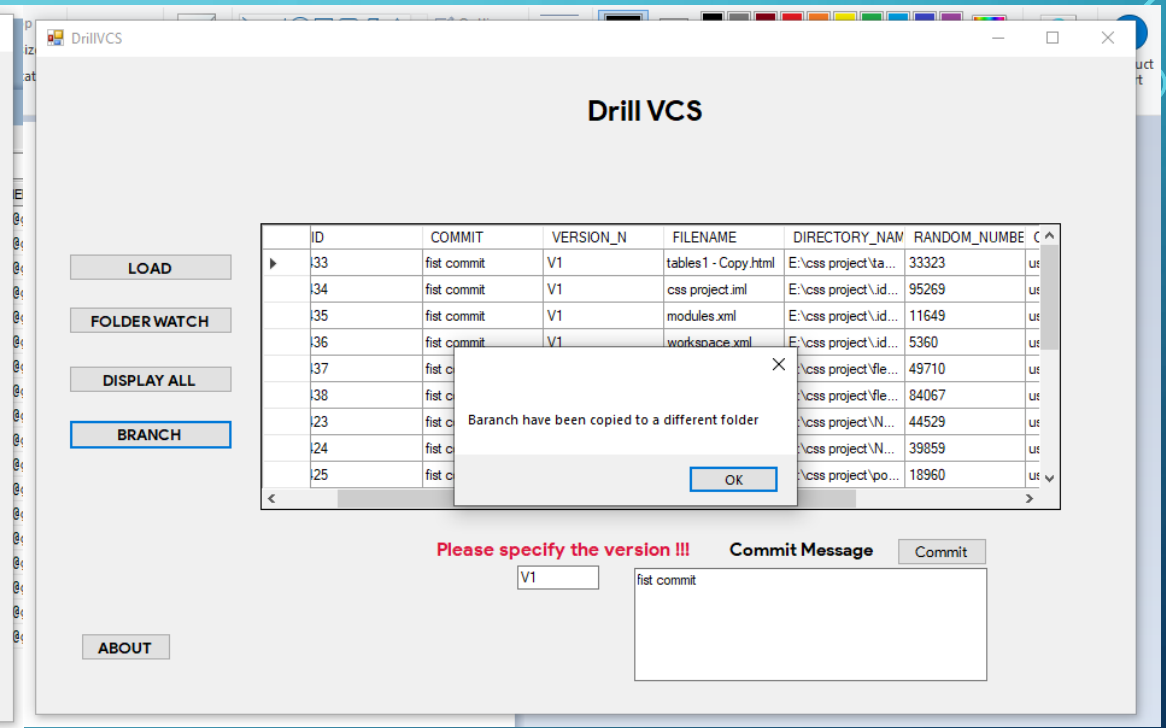
Look for file changes, added in the added project by pressing folder watch button



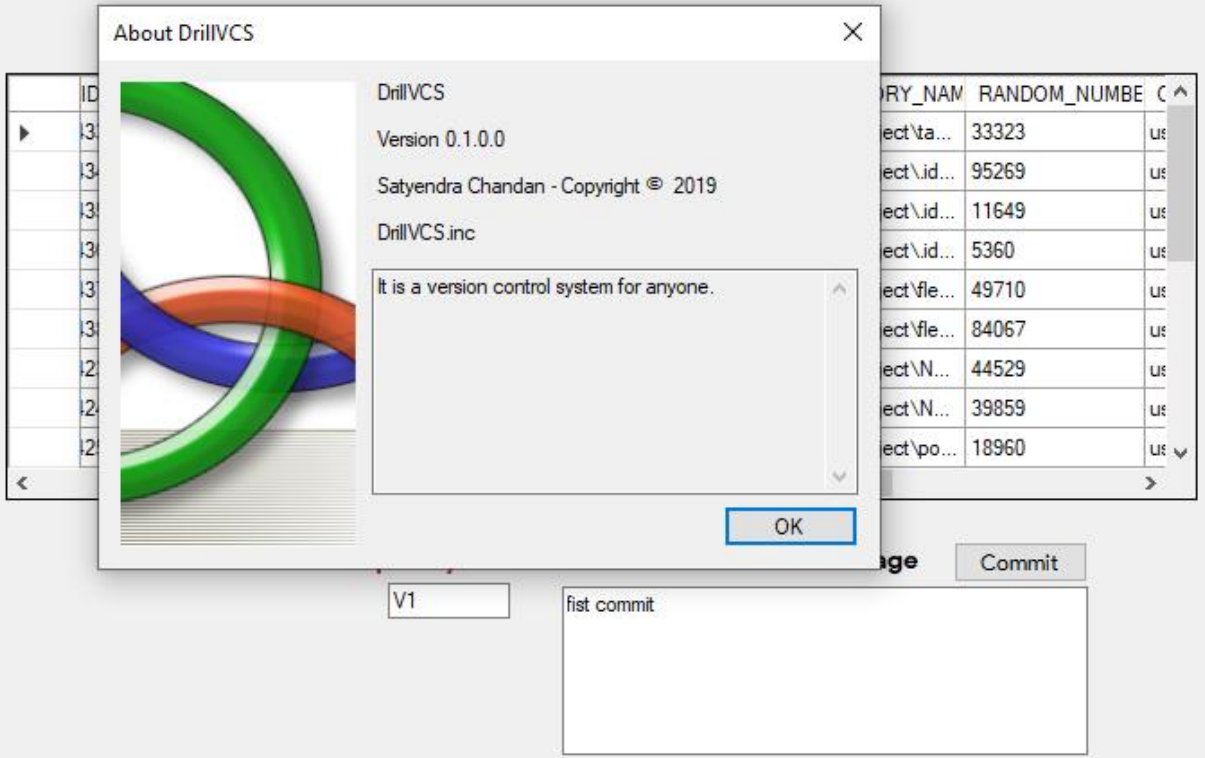
Display the content in the database for a specific user by pressing Display All button.



Create a branch for a specific project.
Files are copied to the specified location.

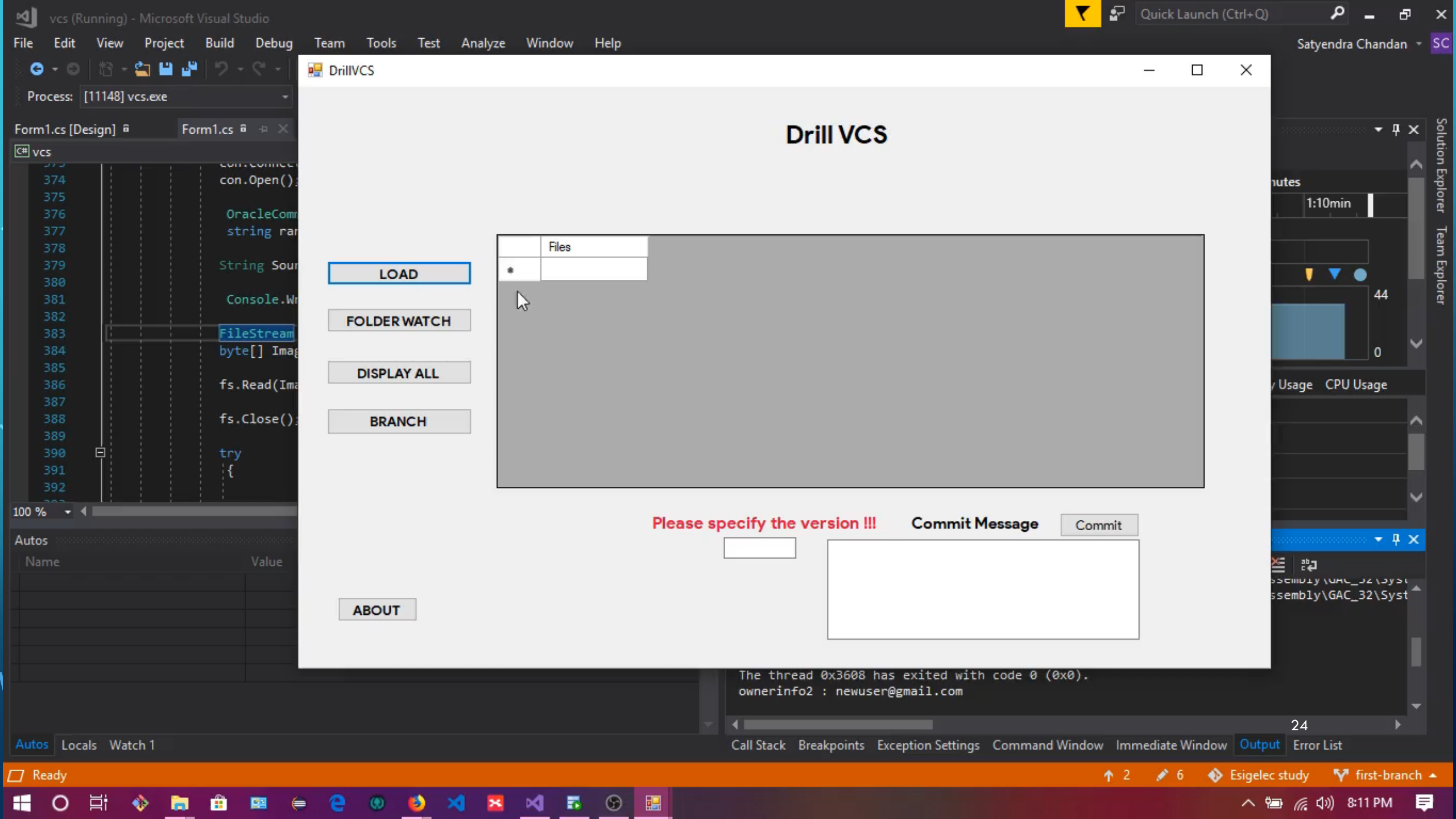


Files copied.



About DrillVCS

**THERE IS A SOFTWARE DEMO VIDEO IN
THE NEXT SLIDE.
PLEASE WATCH.**



Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Test Analyze Window Help

Debug Any CPU Start

Tableau 2018.1
Tableau Public 2018.1
TeamViewer 14
Telegram Desktop
Tencent Software
TSP Solver and Generator
vcs
vcs
Video Editor
VideoLAN
Visual Studio 2017
Visual Studio 2017
Visual Studio Code
Visual Studio Installer

Manage PUBLISH

File Home Share View Application Tools

< > SATYENDRA FILES (E:) > Esigelec study > c sharp .net class > PUBLISH > Search PUBLISH

Name	Date modified	Type	Size
Application Files	21-Jun-19 10:42 PM	File folder	
setup.exe	21-Jun-19 10:42 PM	Application	773 KB
vcs.application	21-Jun-19 10:42 PM	Application Manif...	6 KB

1. Click on setup.exe to install the application

2. Click start and click on vcs to launch the application

This PC
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
new life (D:)
SATYENDRA FILES (E:)

3 items | 1 item selected 772 KB |

The background is a blue gradient with decorative white circuit-like lines in the corners. The lines consist of straight segments and small circles, resembling a stylized electronic circuit.

THANK YOU

Regards

--Satyendra CHANDAN