



Subject: Devops

Assignment 1

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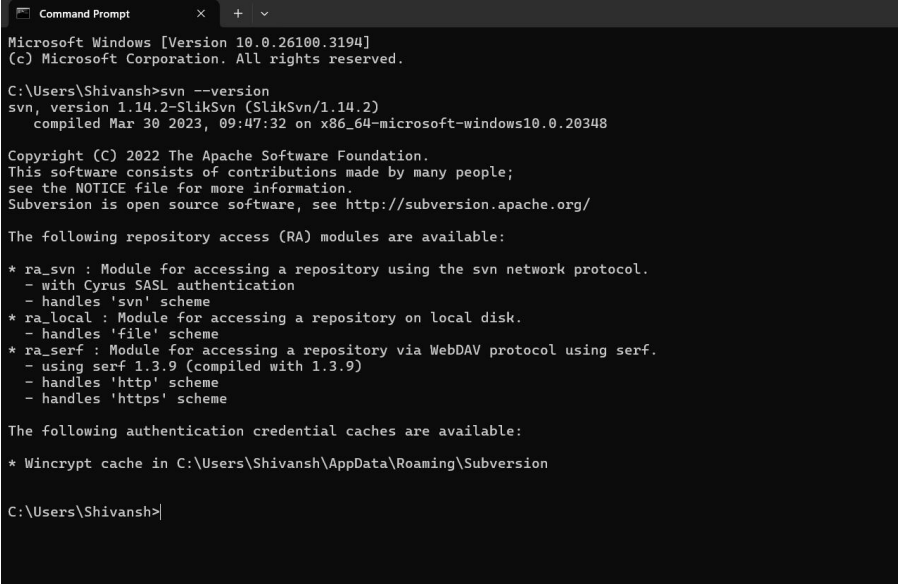
Batch 2 CCVT

Subversion (SVN) is a centralized version control system (VCS) that enables multiple users to collaborate on a project by maintaining all file versions in a central repository. Users must connect to this repository to update their working copies and commit changes. Operating on a client-server architecture, SVN ensures that all modifications are stored in a single location, simplifying project management and control.

Step 1: Install SVN Command-Line Client

1. Download the Slik SVN client from:
<https://sliksvn.com/download/>
2. Install it (select the option "Add to PATH" during installation).
3. Verify Installation Open Command Prompt (cmd) and run:

svn --version



```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivansh>svn --version
svn, version 1.14.2-SlikSvn (SlikSvn/1.14.2)
    compiled Mar 30 2023, 09:47:32 on x86_64-microsoft-windows10.0.20348

Copyright (C) 2022 The Apache Software Foundation.
This software consists of contributions made by many people;
see the NOTICE file for more information.
Subversion is open source software, see http://subversion.apache.org/

The following repository access (RA) modules are available:

* ra_svn : Module for accessing a repository using the svn network protocol.
  - with Cyrus SASL authentication
  - handles 'svn' scheme
* ra_local : Module for accessing a repository on local disk.
  - handles 'file' scheme
* ra_serf : Module for accessing a repository via WebDAV protocol using serf.
  - using serf 1.3.9 (compiled with 1.3.9)
  - handles 'http' scheme
  - handles 'https' scheme

The following authentication credential caches are available:

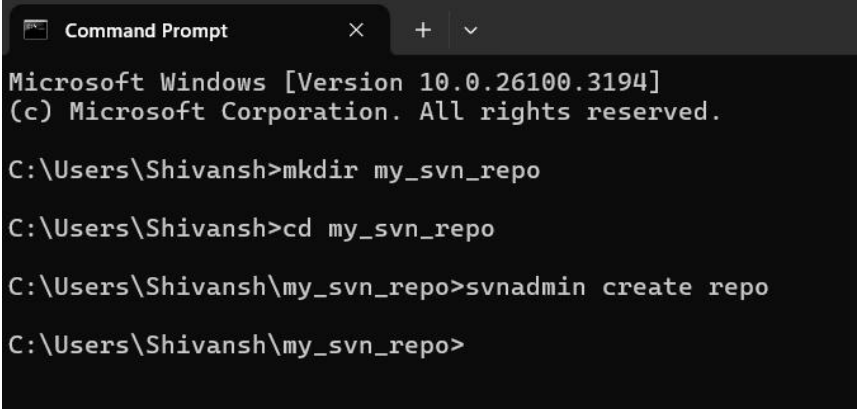
* Wincrypt cache in C:\Users\Shivansh\AppData\Roaming\Subversion

C:\Users\Shivansh>
```

Create an SVN Repository

Copy code

svnadmin create C:\svn-repo(Creates an SVN repository in C:\svn-repo.)



```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivansh>mkdir my_svn_repo

C:\Users\Shivansh>cd my_svn_repo

C:\Users\Shivansh\my_svn_repo>svnadmin create repo

C:\Users\Shivansh\my_svn_repo>
```

Step 2: Checkout a Working Copy

Copy code

```
svn checkout file:///C:/svn-repo my-working-copy
```

```
cd my-working-copy
```

(This clones the repository into my-working-copy.)

```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivansh>svnadmin create C:\svn-repo
svnadmin: E165002: 'C:\svn-repo' is an existing repository

C:\Users\Shivansh>svn checkout file:///C:/svn-repo my-working-copy
Checked out revision 0.

C:\Users\Shivansh>cd my-working-copy

C:\Users\Shivansh\my-working-copy>
```

Step 3: Add a File

Copy code

```
echo "Hello SVN" > file.txt
```

```
svn add file.txt
```

```
svn commit -m "Added file.txt"
```

(This adds a new file and commits it.)

```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivansh>svnadmin create C:\svn-repo
svnadmin: E165002: 'C:\svn-repo' is an existing repository

C:\Users\Shivansh>svn checkout file:///C:/svn-repo my-working-copy
Checked out revision 0.

C:\Users\Shivansh>cd my-working-copy

C:\Users\Shivansh\my-working-copy>echo "Hello SVN" > file.txt

C:\Users\Shivansh\my-working-copy>svn add file.txt
A          file.txt

C:\Users\Shivansh\my-working-copy>svn commit -m "Added file.txt"
Adding          file.txt
Transmitting file data .done
Committing transaction...
Committed revision 1.

C:\Users\Shivansh\my-working-copy>
```

Step 4: Update & View Logs

Copy code

svn update

svn log

(Checks for updates and shows commit history.)

```
C:\Users\Shivansh\my-working-copy>svn update
Updating '.':
At revision 1.

C:\Users\Shivansh\my-working-copy>svn log
-----
r1 | Shivansh | 2025-02-17 14:15:16 +0530 (Mon, 17 Feb 2025) | 1 line
Added file.txt
-----

C:\Users\Shivansh\my-working-copy>
```

Step 5: Revert Changes

Copy code

echo "New content" > file.txt

svn revert file.txt

(Reverts unsaved changes.)

```
C:\Users\Shivansh\my-working-copy>echo "New content" > file.txt
C:\Users\Shivansh\my-working-copy>svn revert file.txt
```

```
Reverted 'file.txt'
```

Install and setup Mercurial on windows

Step 1: Verify Mercurial Installation

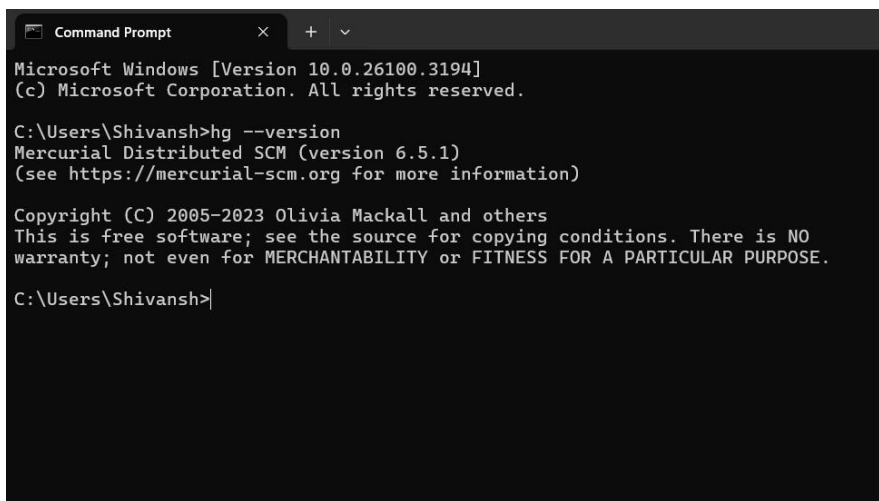
Open Command Prompt (cmd) or PowerShell

Press Win + R, type cmd, and press Enter.

Check Mercurial Version

Copy code

hg --version



```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivansh>hg --version
Mercurial Distributed SCM (version 6.5.1)
(see https://mercurial-scm.org for more information)

Copyright (C) 2005-2023 Olivia Mackall and others
This is free software; see the source for copying conditions. There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

C:\Users\Shivansh>
```

Step 4: Configure Mercurial (First-Time Setup)

Set Up Your Identity

Open Command Prompt (cmd) and run:

Copy code

hg config --edit

This opens the Mercurial configuration file in Notepad. Add the following lines:

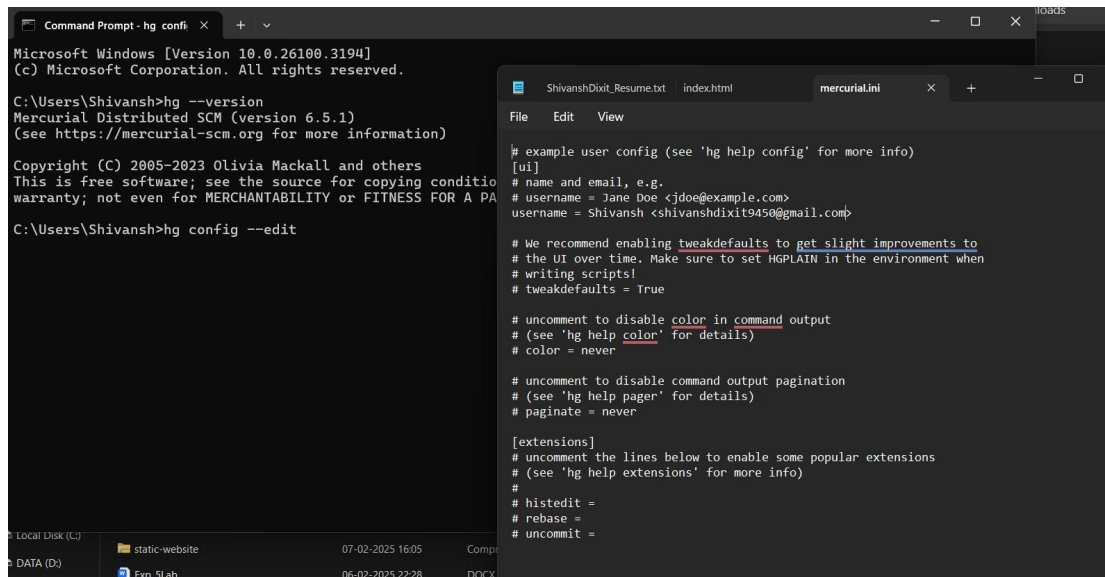
ini

Copy code

[ui]

username = Your Name [<your.email@example.com>](mailto:your.email@example.com)

Save and close file.

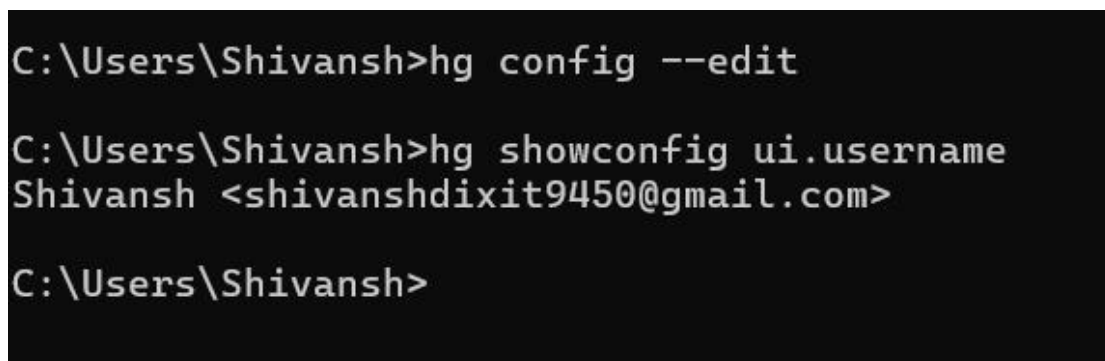


Test Configuration

Copy code

```
hg showconfig ui.username
```

You should see your name and email displayed.



Step 5: Create a Mercurial Repository

Create a New Repository

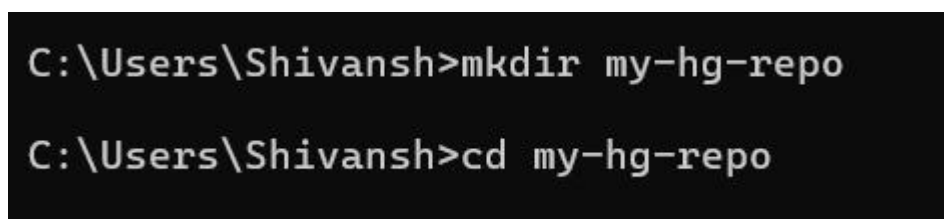
Copy code

```
mkdir my-hg-repo
```

```
cd my-hg-repo
```

```
hg init
```

This initializes a new Mercurial repository in my-hg-repo



Add and Commit Files

Copy code

```
echo "Hello Mercurial" > readme.txt
```

```
hg add readme.txt
```

```
hg commit -m "Initial commit"
```

This adds and commits readme.txt to the repository.

```
C:\Users\Shivansh\my-hg-repo>hg init

C:\Users\Shivansh\my-hg-repo>echo "Hello Mercurial" > readme.txt

C:\Users\Shivansh\my-hg-repo>hg add readme.txt

C:\Users\Shivansh\my-hg-repo>hg commit -m "Initial commit"

C:\Users\Shivansh\my-hg-repo>
```

Check Repository Status

Copy code

```
hg status
```

If there are no pending changes, the command will return nothing.

```
C:\Users\Shivansh\my-hg-repo>hg status
```