PONDICHERRY UNIVERSITY

Public university in Pondicherry

WEB ACCESSIBILITY – CSCE843
(Softcore)

TASK-10

NVDA for 10 Min

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NVDA:

- Non-Visual Desktop Access (NVDA) is a free and open-source screen reader from Microsoft Windows operating system.
- Providing feedback via synthetic speech and Braille, it enables blind or vision impaired people to access computers running Windows for no more cost than a sighted person.
- NVDA is developed by NV Access, with contributions from the community.

Features of NVDA:

- NVDA support applications such as web browser, email clients, internet chat programs and office suites
- Built-in speech synthesizer supporting over 80 languages
- Reporting of textual formatting where available such as font name and size, style and spelling errors
- Automatic announcement of text under the mouse and optional audible indication of the mouse position
- It supports for many refreshable braille displays, including the ability to detect many of them automatically as well as braille input on braille displays with a braille keyboard
- Ability to run entirely from a USB flash drive or other portable media without the need for installation
- Easy to use talking installer
- Translated into 54 languages
- Support for modern Windows Operating Systems including both 32- and 64-bit variants
- Ability to run during Windows sign-in and other secure screens.
- Announcing controls and text while using touch gestures
- Support for common accessibility interfaces such as Microsoft Active Accessibility, Java Access Bridge, IAccessible2 and UI Automation
- It supports for Windows Command Prompt and console applications
- The ability to highlight the system focus

Installing NVDA:

Step 1: Install NVDA directly from the NVDA download package, press the Install NVDA button.

Step 2: The installation dialog that appears will confirm whether you wish to install NVDA

Step 3: Pressing the Continue button will start installing NVDA

Step 4: Once the installation has completed, a message will appear telling you that it was successful

NVDA Browser Support:

- Mozilla Firefox
- Microsoft Internet Explorer
- Mozilla Thunderbird
- HTML messages in Microsoft Outlook
- Google Chrome
- Microsoft Edge
- Adobe Reader
- Foxit Reader
- Supported books in Amazon Kindle for PC

Basic NVDA commands

Name	Desktop key	Laptop key	Touch
Starts or restarts NVDA	Control+alt+n	Control+alt+n	none
Stop speech	Control	control	2-finger tap
Pause Speech	shift	shift	none
NVDA Menu	NVDA+n	NVDA+n	2-finger double-tap
Toggle Speech Mode	NVDA+s	NVDA+s	none
Toggle Input Help Mode	NVDA+1	NVDA+1	none
Quit NVDA	NVDA+q	NVDA+q	none
Pass next key through	NVDA+f2	NVDA+f2	none
Toggle application sleep mode on and off	NVDA+shift+s	NVDA+shift+z	none

NVDA for 10 Minutes:

Use Case 1: Microsoft Word

➢ Automatic Column and Row Header Reading

➢ Browse Mode in Microsoft Word
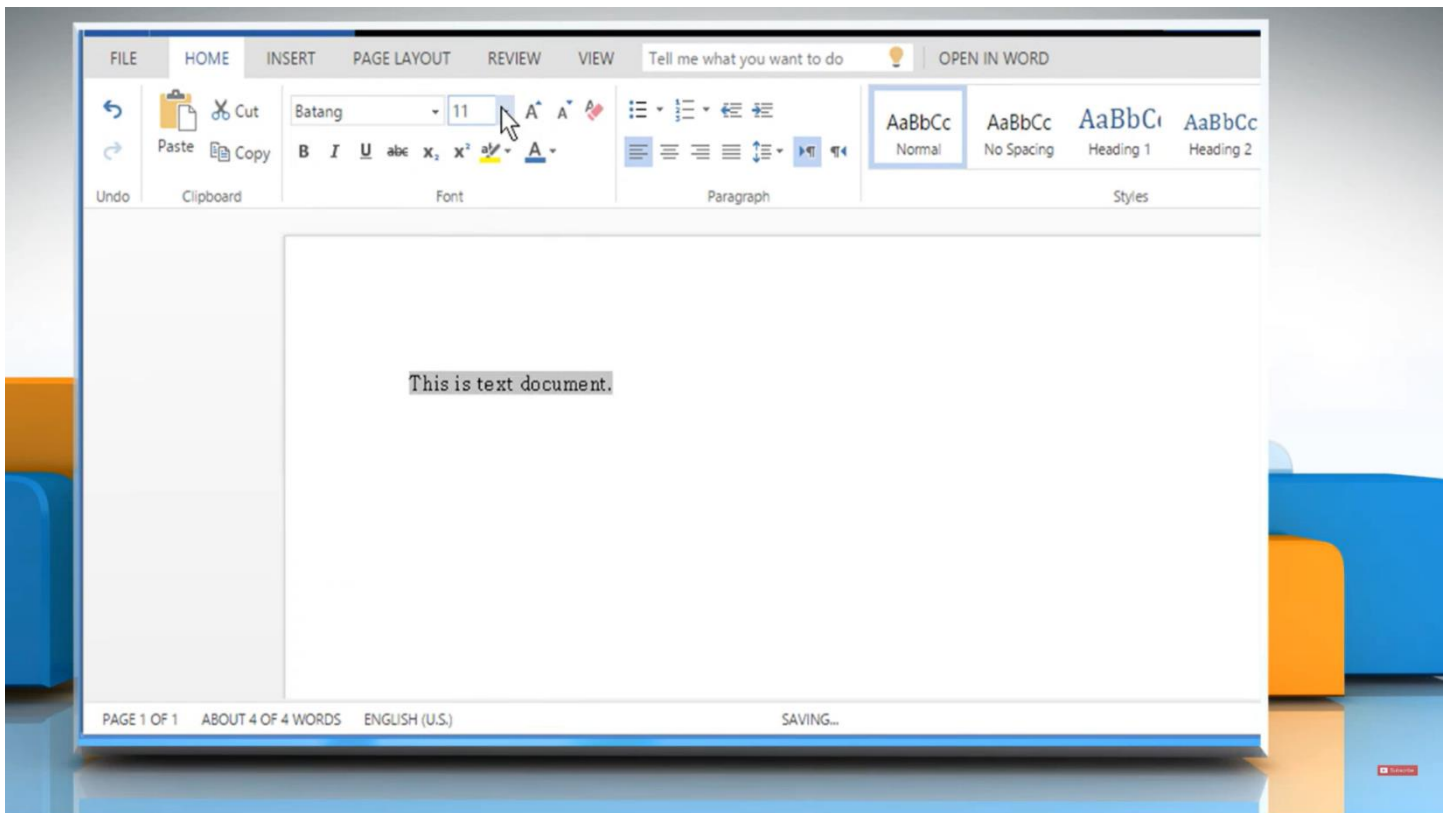
➢ The Elements List (headings, links, annotations and errors)

➢ Reporting Comments

> ➢ Non-Visual Desktop Access (NVDA) is a free and open-source screen reader from Microsoft Windows operating system.
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Use Case 2: Microsoft Excel

➢ Automatic Column and Row Header Reading

Date	Province/State	Country/Region	Lat	Long	Confirmed	Deaths	Recovered	Active	WHO Region
22-01-2020		Afghanistan	33.93911	67.70995	0	0	0	0	Eastern Mediterranean
22-01-2020		Albania	41.1533	20.1683	0	0	0	0	Europe
22-01-2020		Algeria	28.0339	1.6596	0	0	0	0	Africa
22-01-2020		Andorra	42.5063	1.5218	0	0	0	0	Europe
22-01-2020		Angola	-11.2027	17.8739	0	0	0	0	Africa
22-01-2020		Antigua and Barbuda	17.0608	-61.7964	0	0	0	0	Americas
22-01-2020		Argentina	-38.4161	-63.6167	0	0	0	0	Americas
22-01-2020		Armenia	40.0691	45.0382	0	0	0	0	Europe
22-01-2020	Australian Capital Ter	Australia	-35.4735	149.0124	0	0	0	0	Western Pacific
22-01-2020	New South Wales	Australia	-33.8688	151.2093	0	0	0	0	Western Pacific
22-01-2020	Northern Territory	Australia	-12.4634	130.8456	0	0	0	0	Western Pacific
22-01-2020	Queensland	Australia	-27.4698	153.0251	0	0	0	0	Western Pacific
22-01-2020	South Australia	Australia	-34.9285	138.6007	0	0	0	0	Western Pacific
22-01-2020	Tasmania	Australia	-42.8821	147.3272	0	0	0	0	Western Pacific
22-01-2020	Victoria	Australia	-37.8136	144.9631	0	0	0	0	Western Pacific
22-01-2020	Western Australia	Australia	-31.9505	115.8605	0	0	0	0	Western Pacific
22-01-2020		Austria	47.5162	14.5501	0	0	0	0	Europe
22-01-2020		Azerbaijan	40.1431	47.5769	0	0	0	0	Europe
22-01-2020		Bahamas	25.02589	-78.0359	0	0	0	0	Americas
22-01-2020		Bahrain	26.0275	50.55	0	0	0	0	Eastern Mediterranean
22-01-2020		Bangladesh	23.685	90.3563	0	0	0	0	South-East Asia
22-01-2020		Barbados	13.1939	-59.5432	0	0	0	0	Americas
22-01-2020		Belarus	53.7098	27.9534	0	0	0	0	Europe
22-01-2020		Belgium	50.8333	4.469936	0	0	0	0	Europe
22-01-2020		Benin	9.3077	2.3158	0	0	0	0	Africa
22-01-2020		Bhutan	27.5142	90.4336	0	0	0	0	South-East Asia
22-01-2020		Bolivia	-16.2902	-63.5887	0	0	0	0	Americas
22-01-2020		Bosnia and Herzegov	43.9159	17.6791	0	0	0	0	Europe

➤ The Elements List (Charts, Comments, Formulas, Sheets, Form fields)

➤ Reporting Notes
➤ Reading Protected Cells
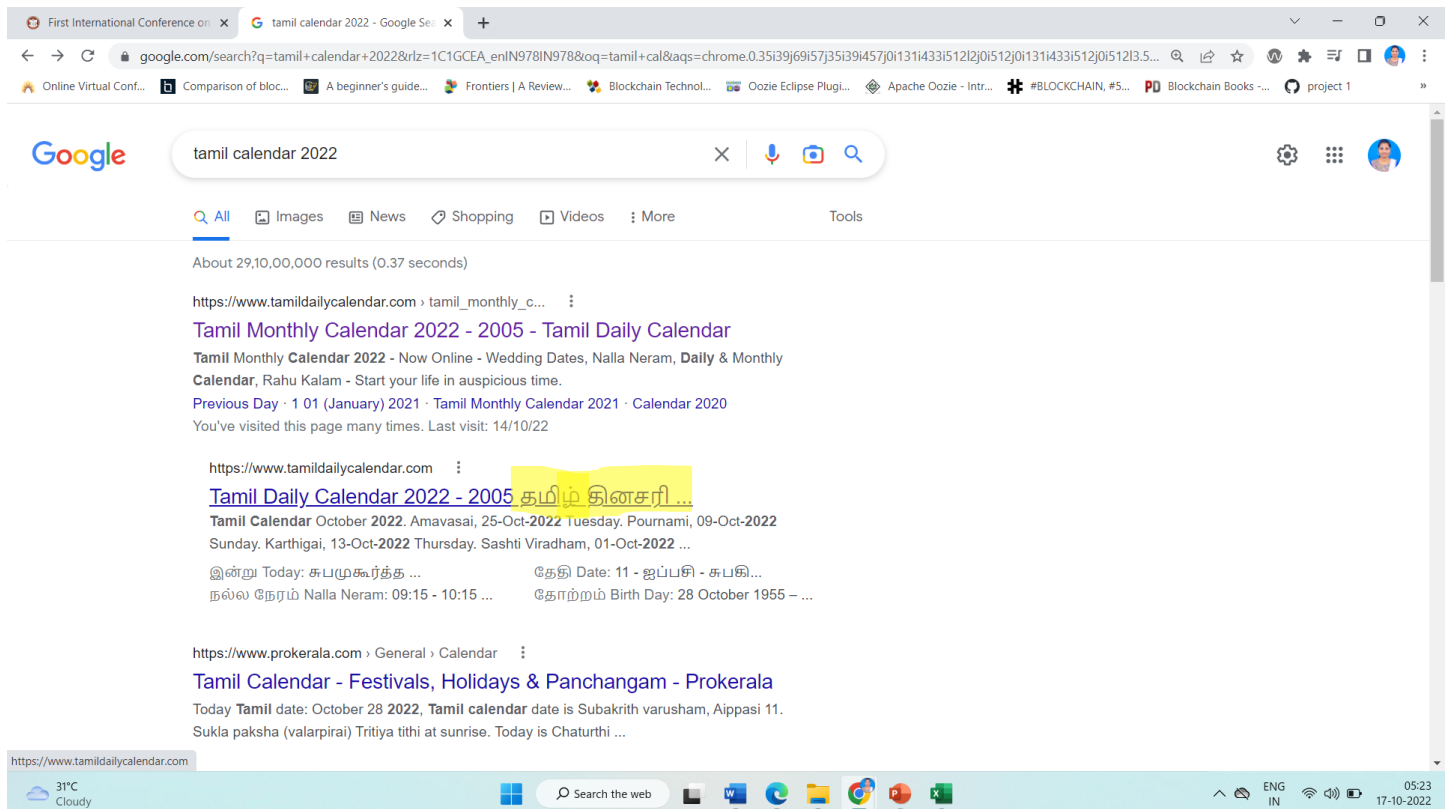
Use Case 3: Chrome

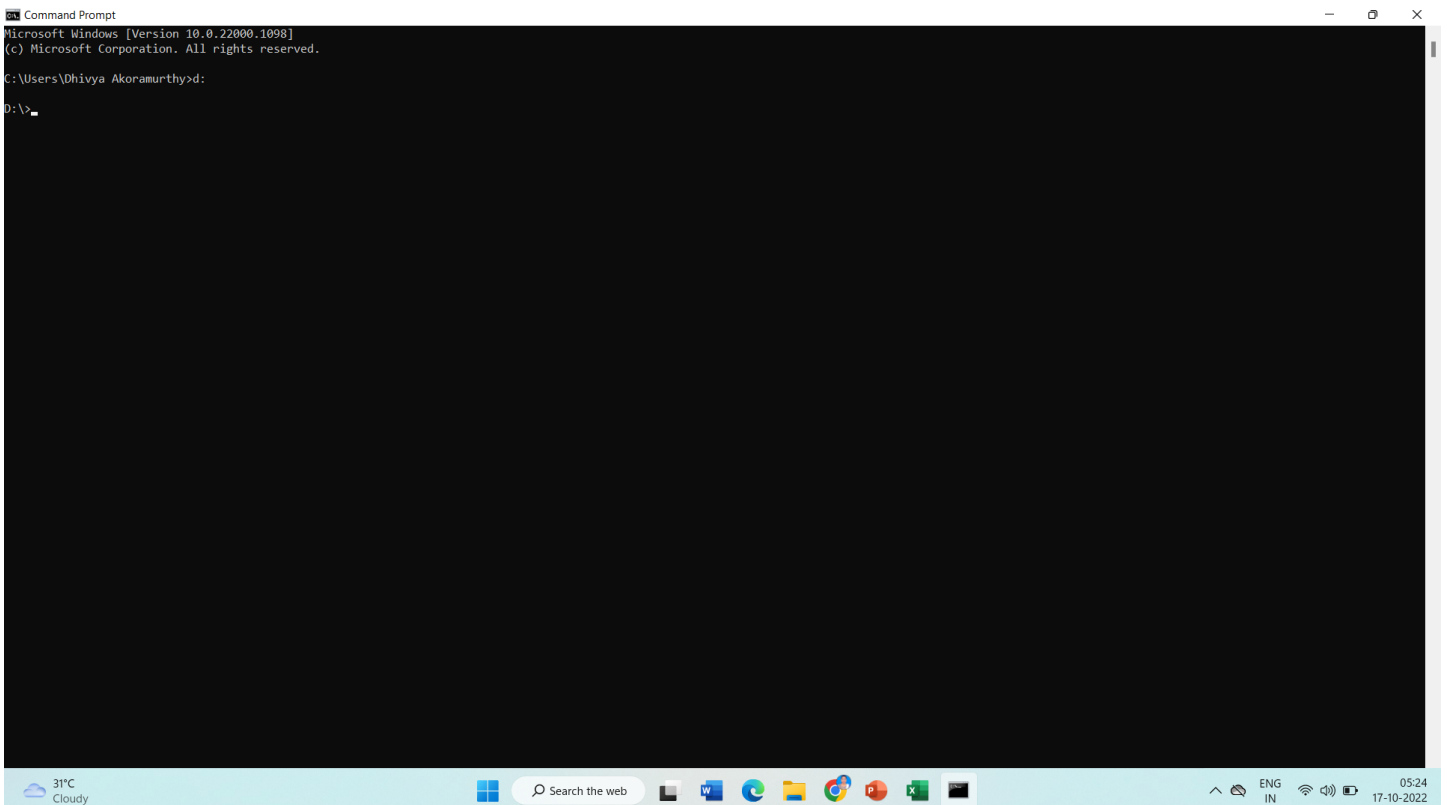➢ Reading Options in Chrome
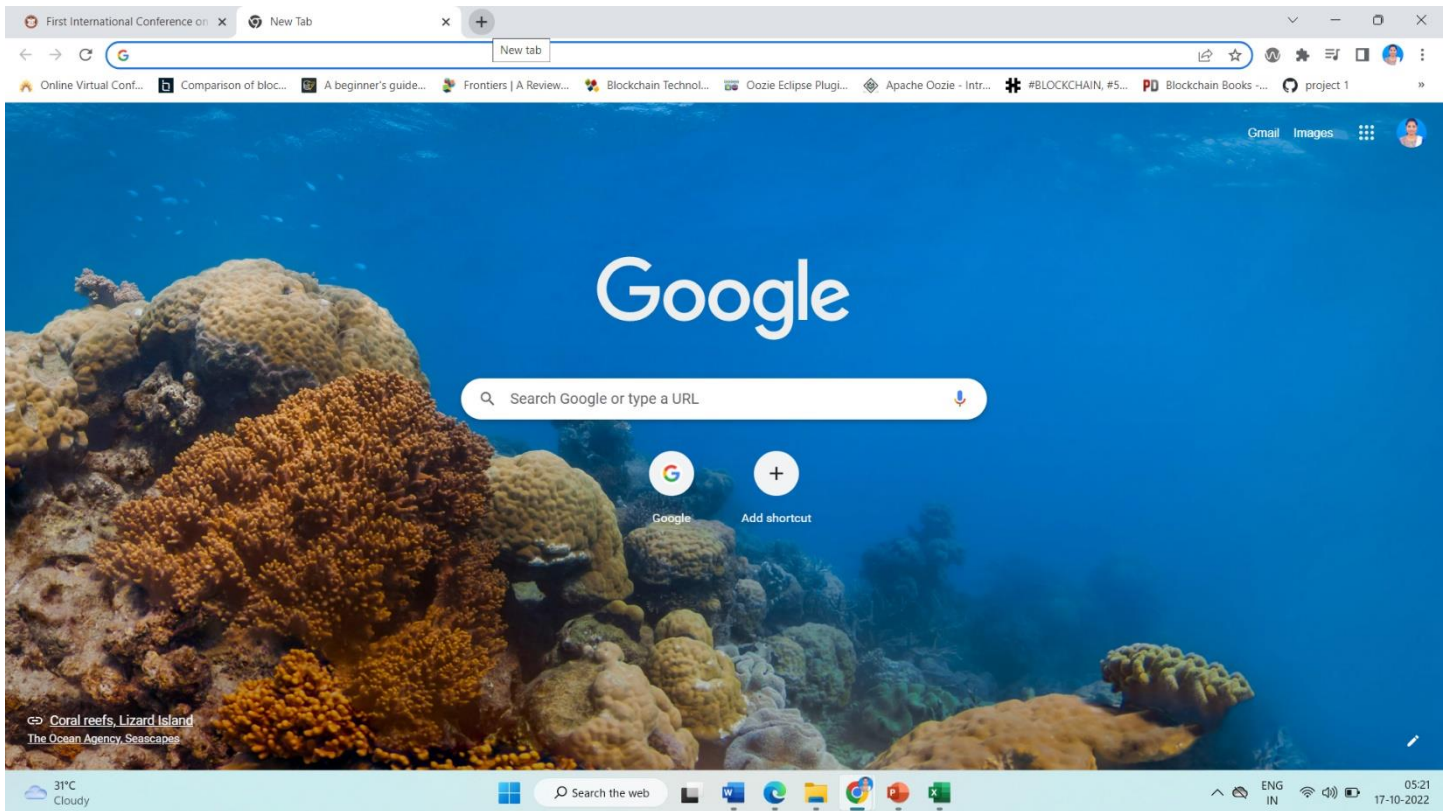
➢ Reading Mouse Pointer content effectively
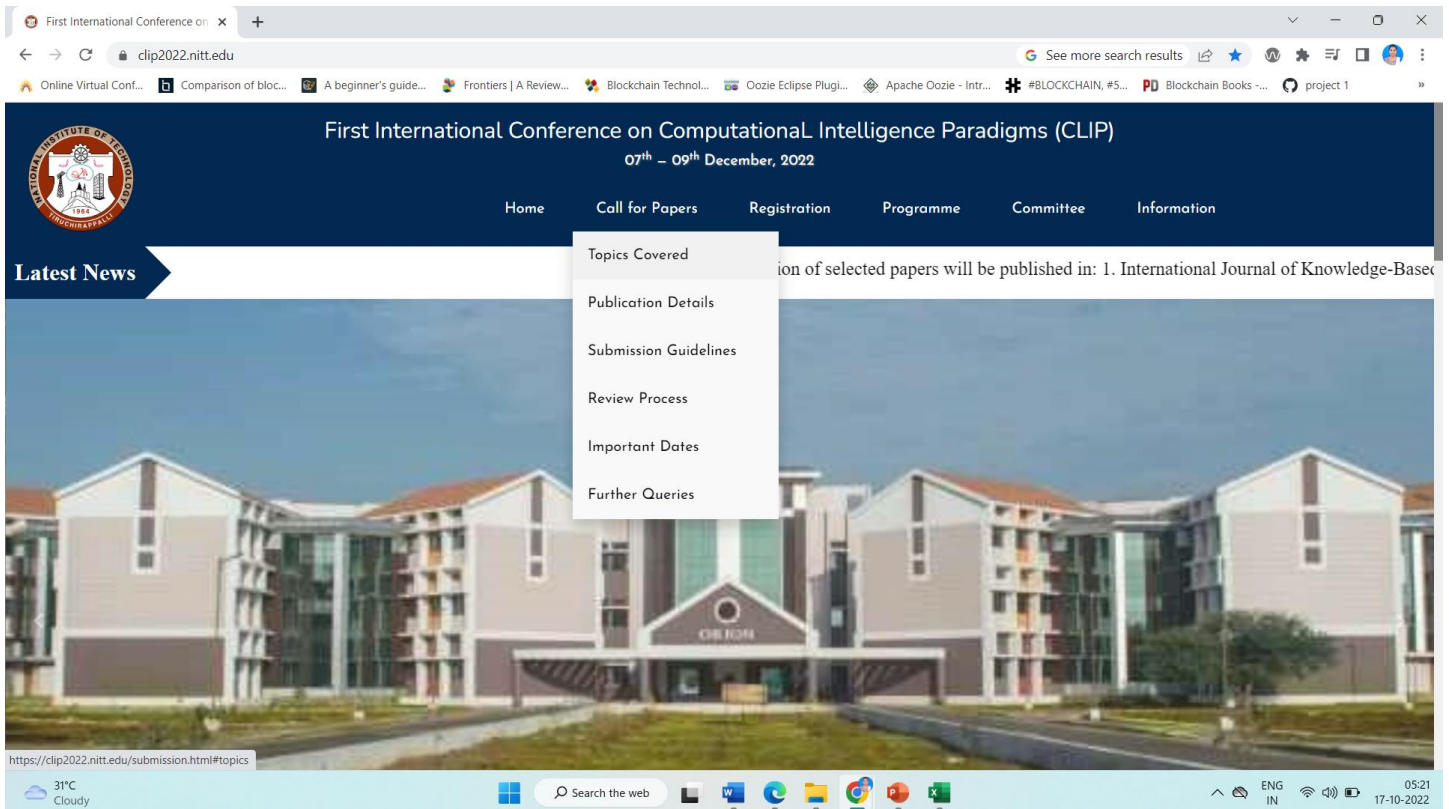
➢ But only reads the English Text in the chrome browser


Use Case 4: Windows Console

➢ NVDA provides support for the Windows command console used by Command Prompt, PowerShell, and the Windows Subsystem for Linux.

- The console window is of fixed size, typically much smaller than the buffer that holds the output.
- As new text is written, the content scrolls upwards and previous text is no longer visible.
- On Windows versions before Windows 11 22H2, text in the console that is not visibly displayed in the window is not accessible with NVDA's text review commands.
- Therefore, it is necessary to scroll the console window to read earlier text.
- In newer versions of the console and in Windows Terminal, it is possible to review the entire text buffer freely without the need to scroll the window.

Use Case 5: Sign out Our own Laptops
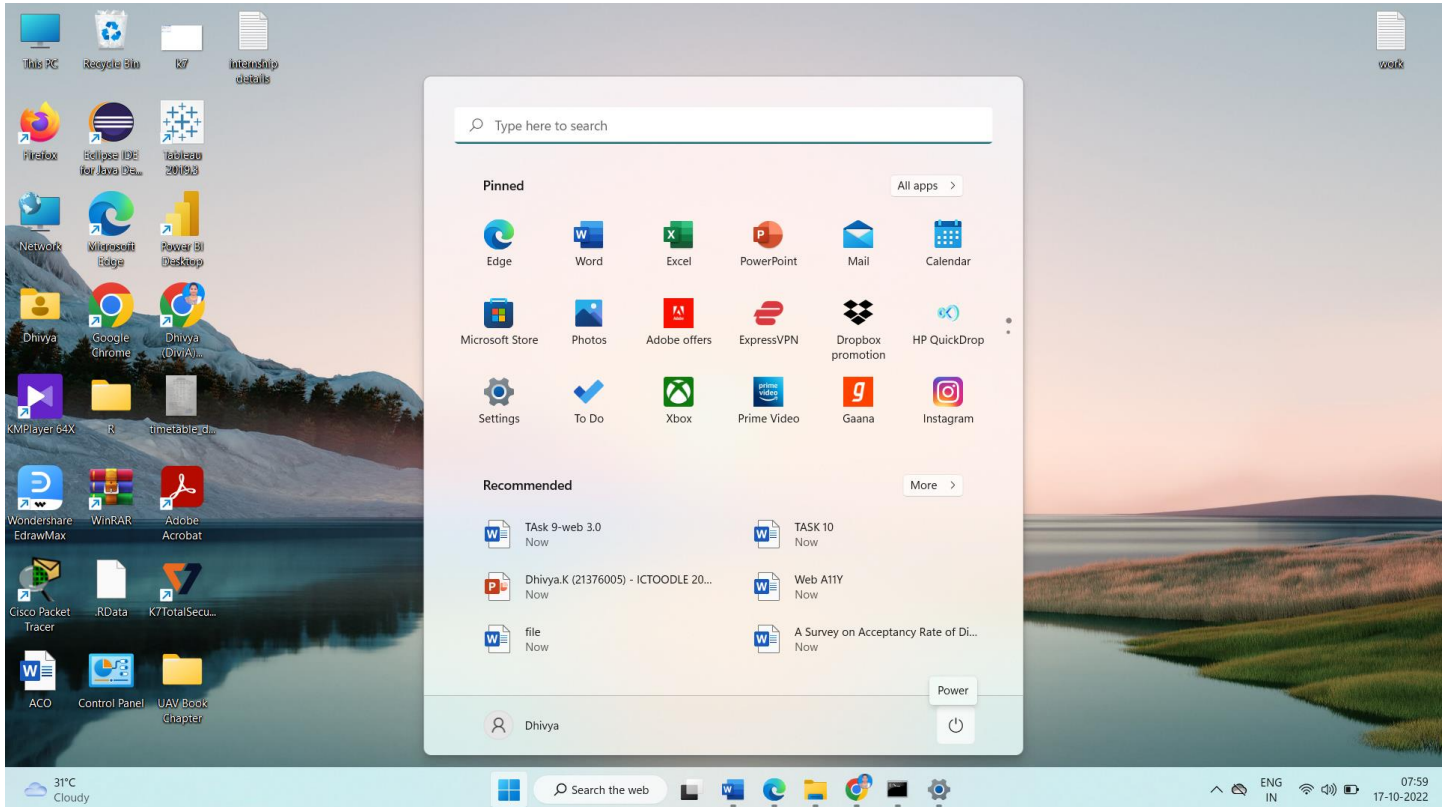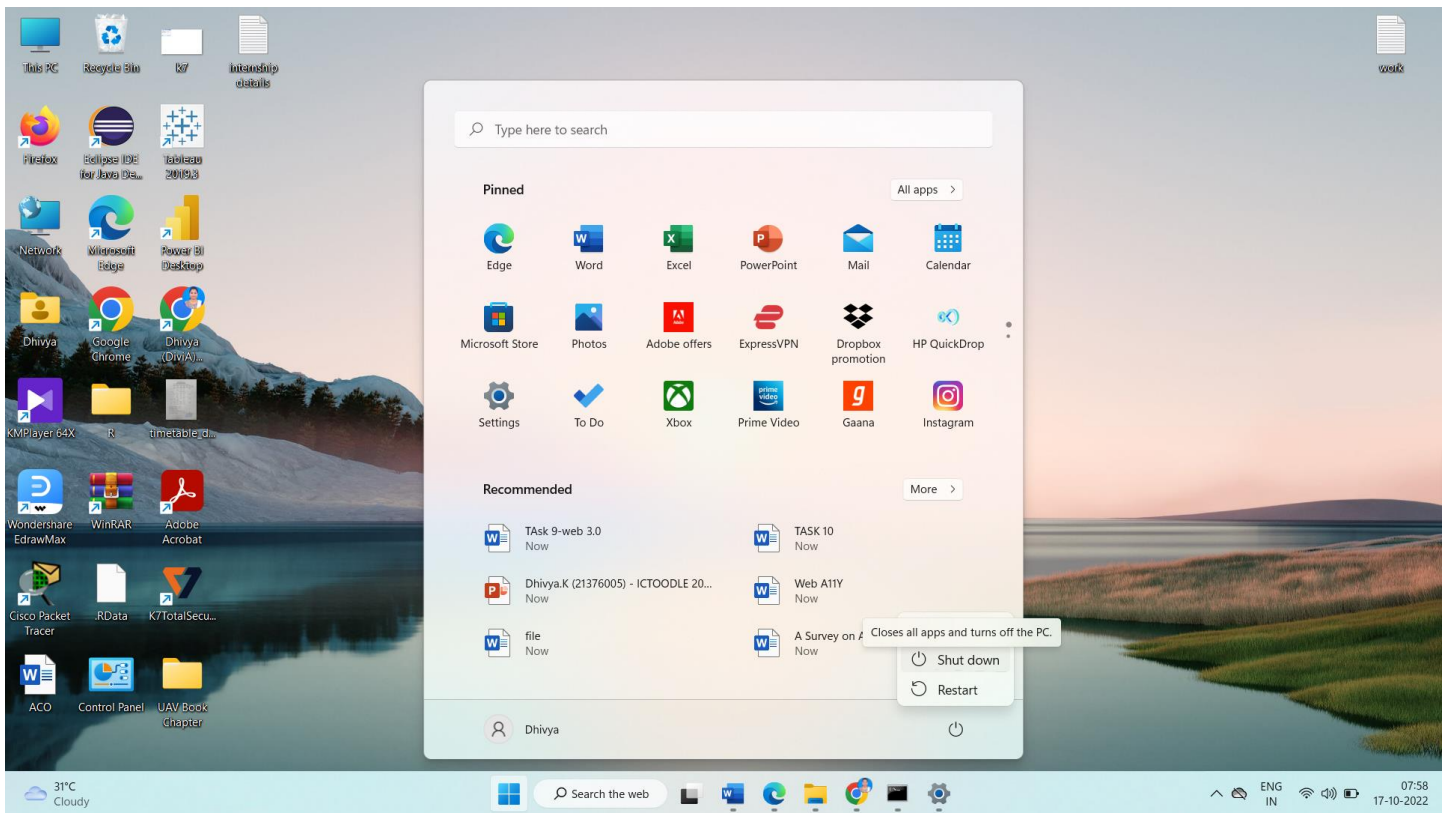
> ➢ I closed my eyes and I tried to shut down my system
> ➢ It is correctly telling the options and I shut down the systems correctly

Use Case 6: Sign in Our own Laptops

Advantages of NVDA Screen Reader:

- ➢ It allows a blind person to use the computer or laptop
- ➢ It allows a blind person to create a document using a word processor like MS Word, MS Excel, MS office etc, …
- ➢ A blind can now read any article on the internet
- ➢ Also, in writing email, chatting, conferencing etc, …
- ➢ If they want to communicate through instant messaging software
- ➢ If they want to make a blog
- ➢ They can also play some computer games has a collection of accessible games for the blind
- ➢ Blind musicians now use an audio editing software to record, edit and save their songs for example
- ➢ It is used for common people who can't read anything that they can also access the computer or laptop

Disadvantages of NVDA Screen Reader:

- ➢ Security is low because of NVDA
- ➢ The Voice of NVDA is like Machine (Robotic voice) so few people can't understand.
- ➢ I tried to play a song lyric in English but I can't understand the sentences clearly.
- ➢ It is fast reading so difficult for People to listen
- ➢ It is not reading all the language except English.

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