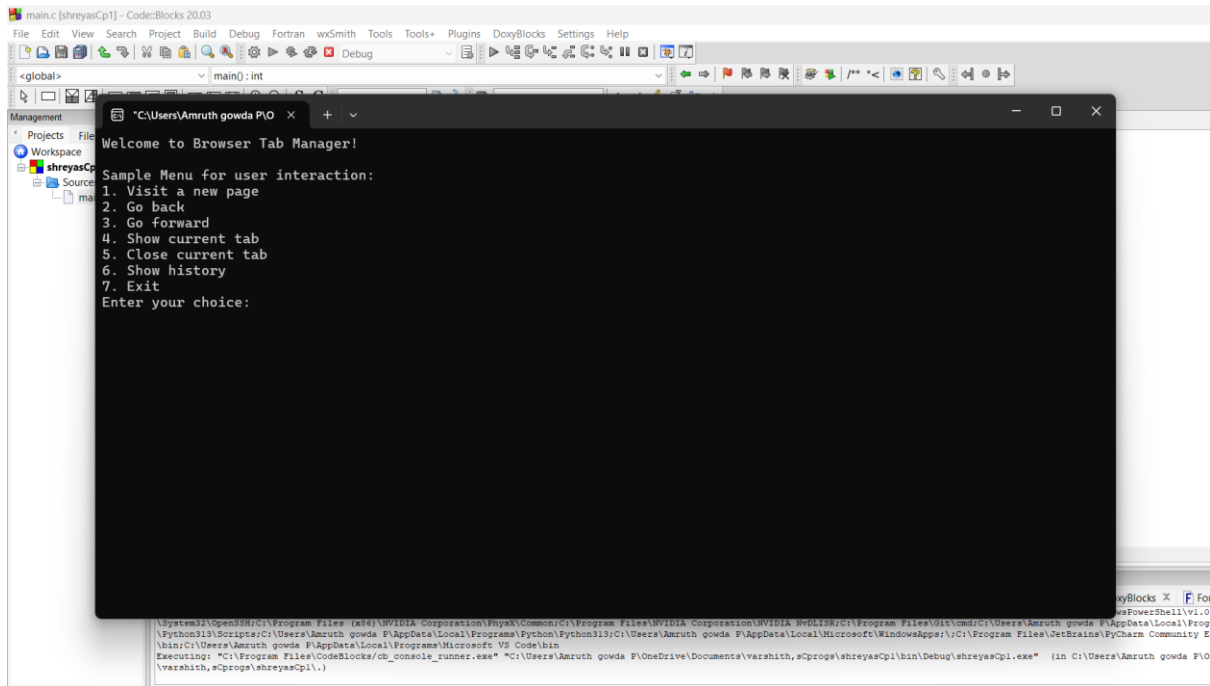




NAME : SHREYAS G

USN : 24UG00459

OUTPUT SCREENSHOTS OF THE CODE:

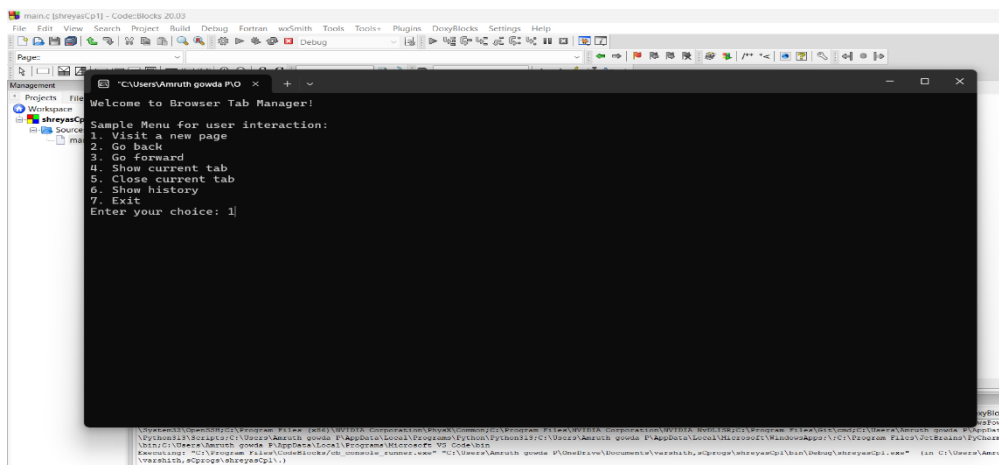


The screenshot shows the Code-Blocks IDE with a project named 'shreyasCp1'. A terminal window is open, displaying the following text:

```
Welcome to Browser Tab Manager!

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice:
```

1 (Visit a new page)

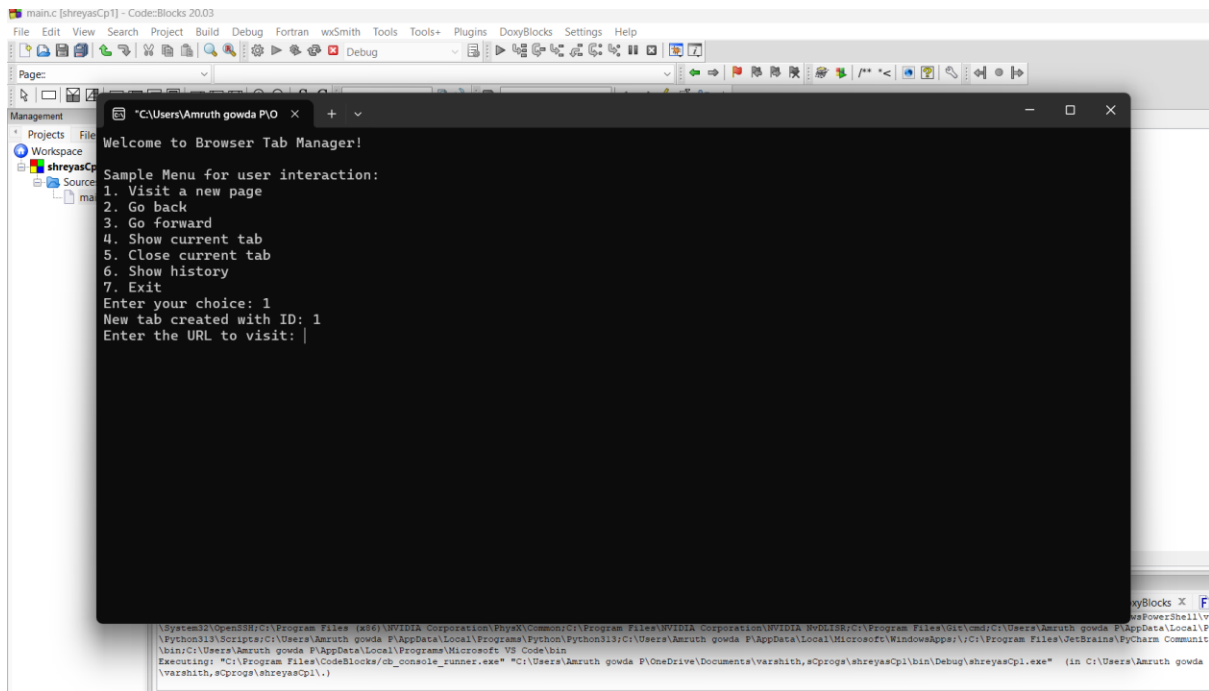


The screenshot shows the same Code-Blocks IDE environment. The terminal window now displays the user's input '1' after the prompt 'Enter your choice:':

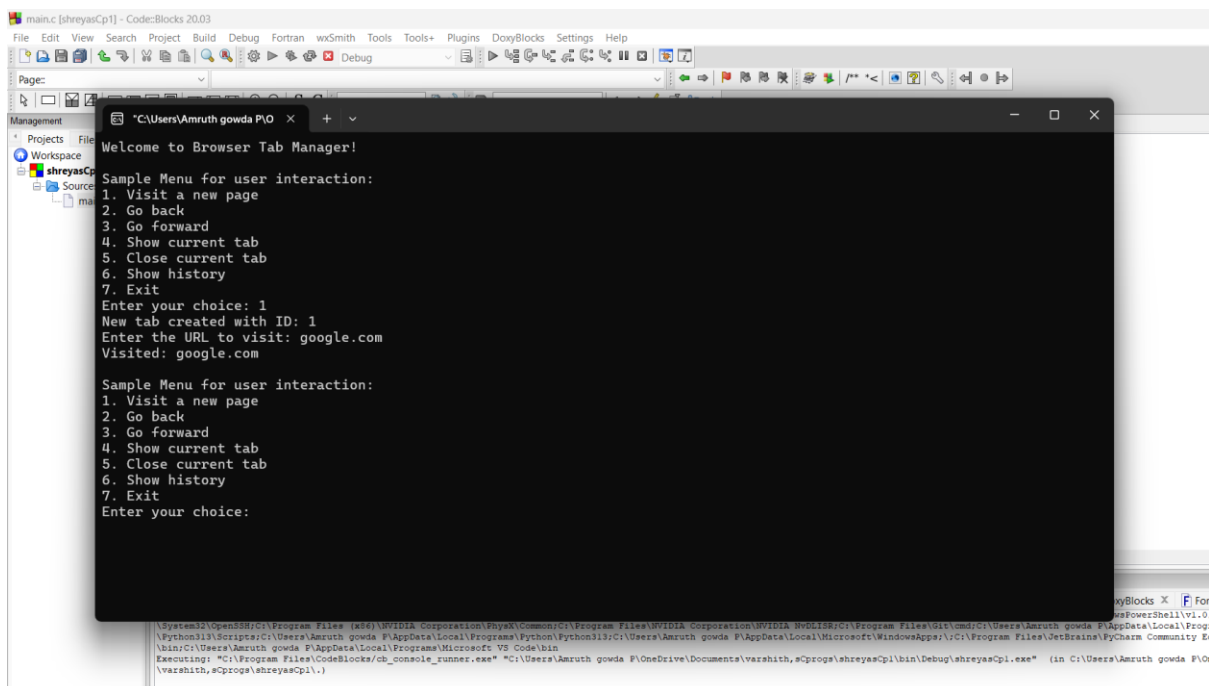
```
Welcome to Browser Tab Manager!

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
```

Program asks: “Enter the URL to visit:”



Type something like: google.com



*It creates a new Page node with that URL,
appends it after the current page in the
doubly linked list, deletes any forward*

history, moves current_page to this new node, and prints “Visited:

The screenshot shows a terminal window titled "C:\Users\Amruth gowda P\O" with a "Welcome to Browser Tab Manager!" message. It displays a sample menu for user interaction with options: 1. Visit a new page, 2. Go back, 3. Go forward, 4. Show current tab, 5. Close current tab, 6. Show history, 7. Exit. The user enters choice 1, then "New tab created with ID: 1", then "Enter the URL to visit: google.com", and finally "Visited: google.com". The menu is repeated.

```
main.c [shreyasCp1] - CodeBlocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Page:
Management
Projects File
Workspace
shreyasCp1
Source
main.c
main.c [shreyasCp1] - CodeBlocks 20.03
Welcome to Browser Tab Manager!
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
New tab created with ID: 1
Enter the URL to visit: google.com
Visited: google.com
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
```

This screenshot shows the terminal after the first visit. The user enters choice 1 again, then "New tab created with ID: 1", then "Enter the URL to visit: youtube.com", and finally "Visited: youtube.com". The menu is repeated.

```
main.c [shreyasCp1] - CodeBlocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Page:
Management
Projects File
Workspace
shreyasCp1
Source
main.c
main.c [shreyasCp1] - CodeBlocks 20.03
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
New tab created with ID: 1
Enter the URL to visit: youtube.com
Visited: youtube.com
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
Enter the URL to visit: youtube.com
Visited: youtube.com
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: |
```

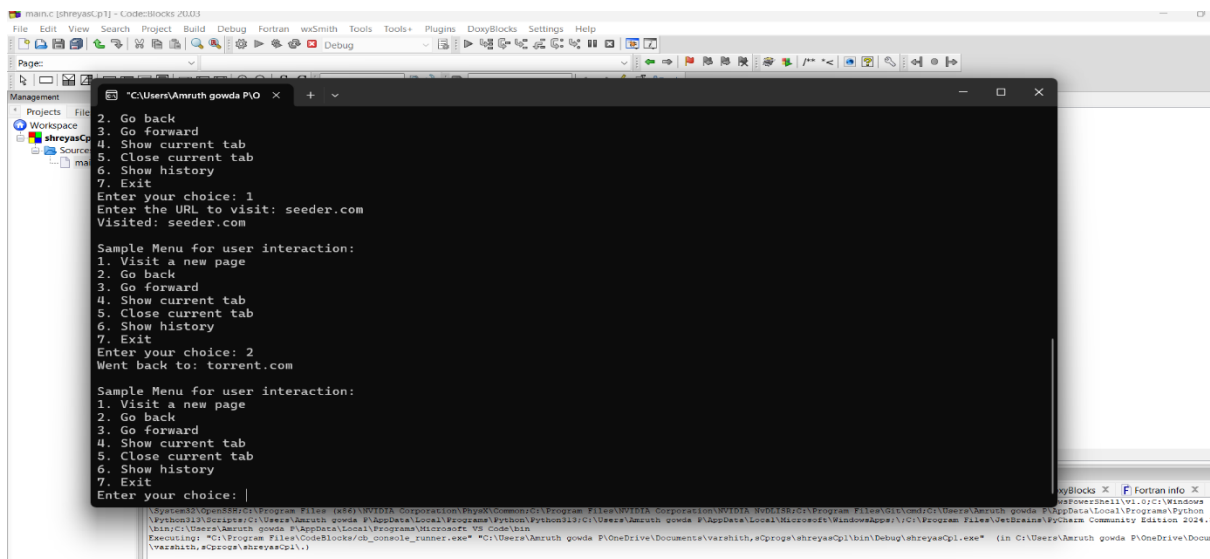
This screenshot shows the terminal after the second visit. The user enters choice 1 again, then "New tab created with ID: 1", then "Enter the URL to visit: google.com", and finally "Visited: google.com". The menu is repeated.

```
main.c [shreyasCp1] - CodeBlocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Page:
Management
Projects File
Workspace
shreyasCp1
Source
main.c
main.c [shreyasCp1] - CodeBlocks 20.03
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
New tab created with ID: 1
Enter the URL to visit: google.com
Visited: google.com
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
Enter the URL to visit: youtube.com
Visited: youtube.com
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
Enter the URL to visit: torrent.com
```


2 (Go back)

If there is a previous page (current_page->prev), it moves current_page one step back and prints “Went back to: <that URL>”.

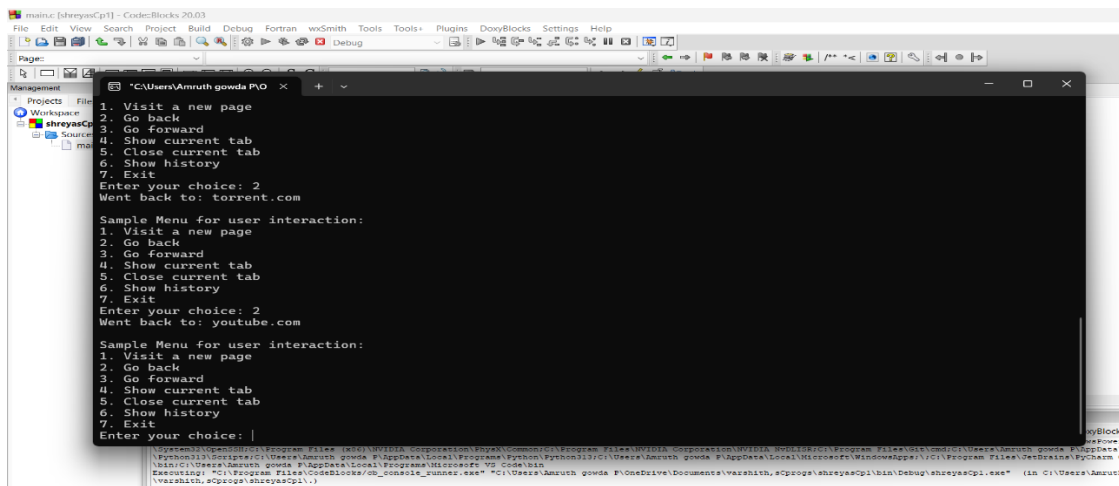
If there isn't, it prints “No previous page in history.”



```
main: [shreyasCp1] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DovyBlocks Settings Help
Page:
Management
Projects File
Workspace
shreyasCp1
Source
main.cpp
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 1
Enter the URL to visit: seeder.com
Visited: seeder.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 2
Went back to: torrent.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: |
```



```
main: [shreyasCp1] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DovyBlocks Settings Help
Page:
Management
Projects File
Workspace
shreyasCp1
Source
main.cpp
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 2
Went back to: torrent.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 2
Went back to: youtube.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: |
```

3 (Go forward)

If there is a next page (current_page->next), it moves current_page one step forward and prints “Went forward to: <that URL>”.

If there isn't, it prints "No forward page in history."

The image displays two sequential screenshots of a Windows terminal window titled "C:\Users\Amruth gowda PVO". The terminal is running a Python script that simulates a web browser with a menu for user interaction.

First Screenshot:

```

1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 2
Went back to: torrent.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 2
Went back to: youtube.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 3

```

Second Screenshot:

```

1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 2
Went back to: youtube.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 3
Went forward to: torrent.com

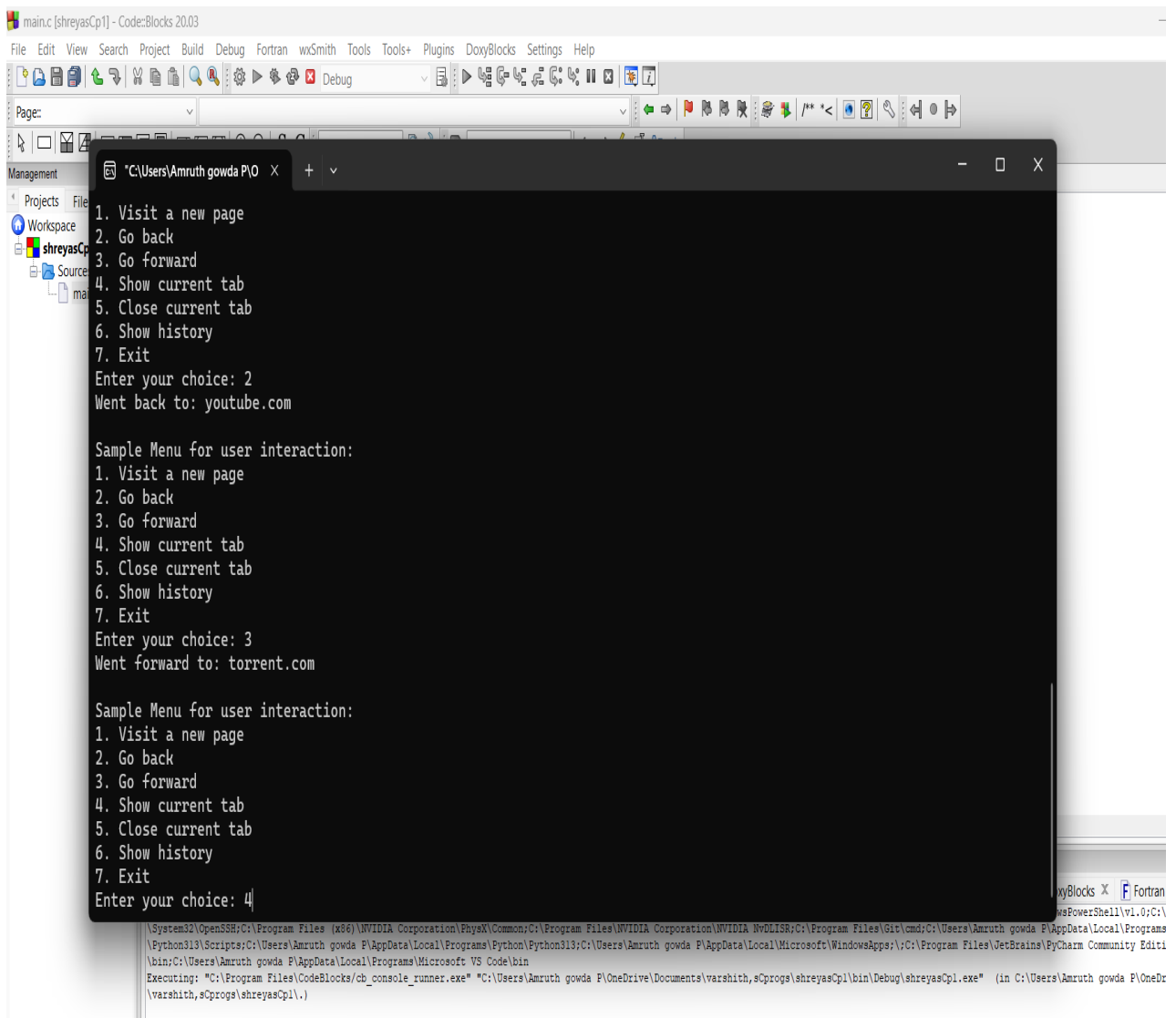
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: |

```

The terminal output shows the user navigating between 'torrent.com' and 'youtube.com' using the 'Go back' and 'Go forward' options. The menu is repeated after each action. The second screenshot shows the user entering a choice to go forward to 'torrent.com' and then another choice to go back to 'youtube.com'.

4 (Show current tab)

Prints the current tab's ID and, if any page was visited, the URL of current_page. If no page yet, says "No page is currently loaded."



The screenshot shows a web browser window with a terminal overlay. The terminal displays a menu for user interaction, listing seven options: 1. Visit a new page, 2. Go back, 3. Go forward, 4. Show current tab, 5. Close current tab, 6. Show history, and 7. Exit. The user has entered choice 2, and the terminal shows 'Went back to: youtube.com'. The user has entered choice 3, and the terminal shows 'Went forward to: torrent.com'. The user has entered choice 4, and the terminal shows 'Sample Menu for user interaction:'. The terminal also displays the current page's ID and URL: 'Current page ID: 1' and 'Current page URL: https://www.youtube.com/'. The terminal window is titled 'C:\Users\Amruth gowda P\O' and has a close button. The background shows a web browser interface with a menu bar (File, Edit, View, Search, Project, Build, Debug, Fortran, wxSmith, Tools, Tools+, Plugins, DoxyBlocks, Settings, Help) and a toolbar. The browser's address bar shows 'https://www.youtube.com/'. The browser's main content area shows a video player with a play button and a video title 'Amruth gowda P'. The browser's status bar shows 'Amruth gowda P' and 'https://www.youtube.com/'.

```
main.c [shreyasCp1] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Page:
Management
Projects File
Workspace
shreyasCp1
Source
ma

1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 2
Went back to: youtube.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 3
Went forward to: torrent.com

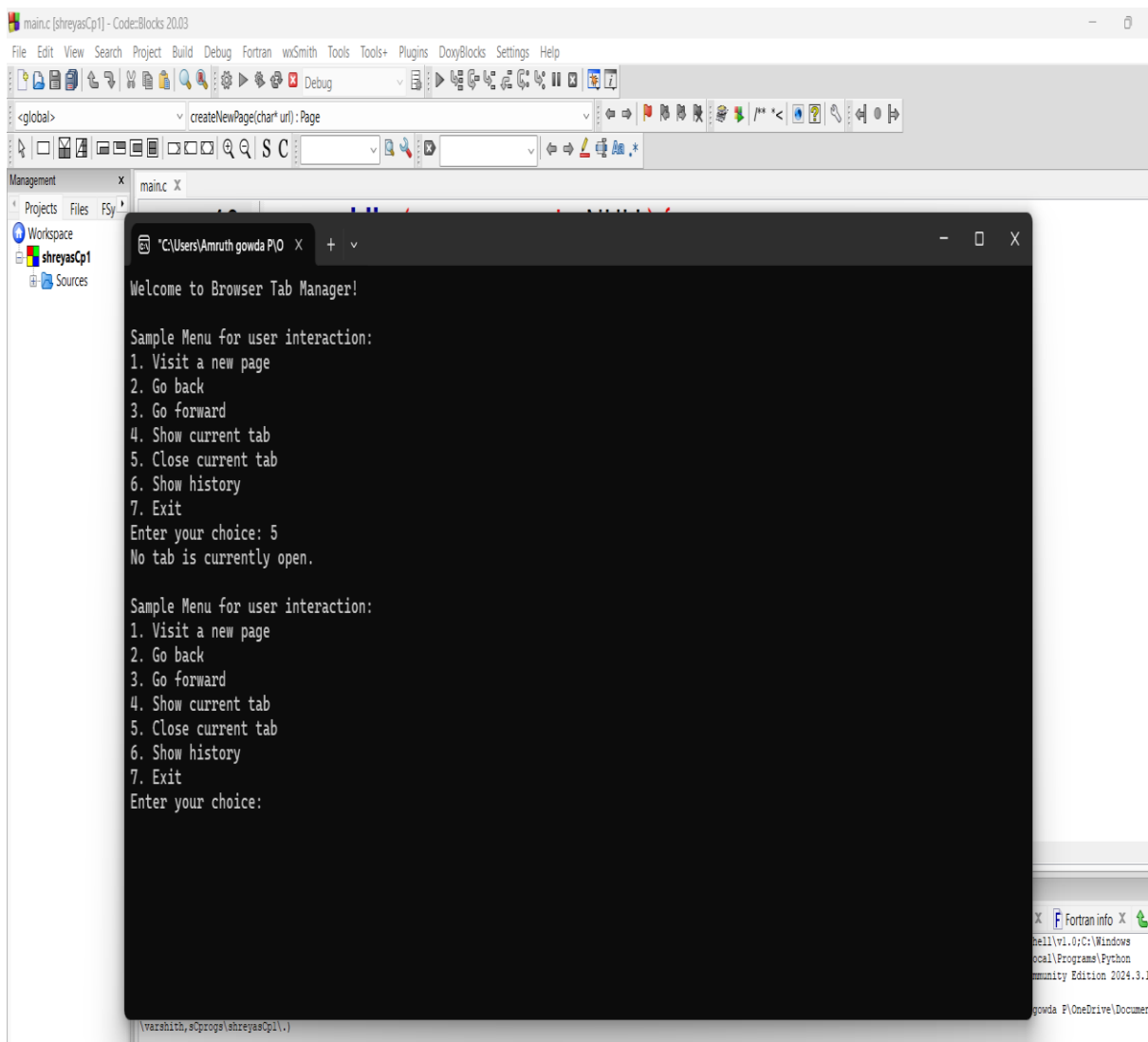
Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 4

Current page ID: 1
Current page URL: https://www.youtube.com/

C:\Users\Amruth gowda P\O X + -
DoxyBlocks X Fortran
PowerShell\1.0.0;C:\
Python313\Scripts;C:\Users\Amruth gowda P\AppData\Local\Programs\Python\Python313;C:\Users\Amruth gowda P\AppData\Local\Microsoft\WindowsApps;C:\Program Files\JetBrains\PyCharm Community Editi
\bin;C:\Users\Amruth gowda P\AppData\Local\Programs\Microsoft VS Code\bin
Executing: "C:\Program Files\CodeBlocks\cb_console_runner.exe" "C:\Users\Amruth gowda P\OneDrive\Documents\varshith,sCprogs\shreyasCp1\bin\Debug\shreyasCp1.exe" (in C:\Users\Amruth gowda P\OneDr
\varshith,sCprogs\shreyasCp1\.)
```

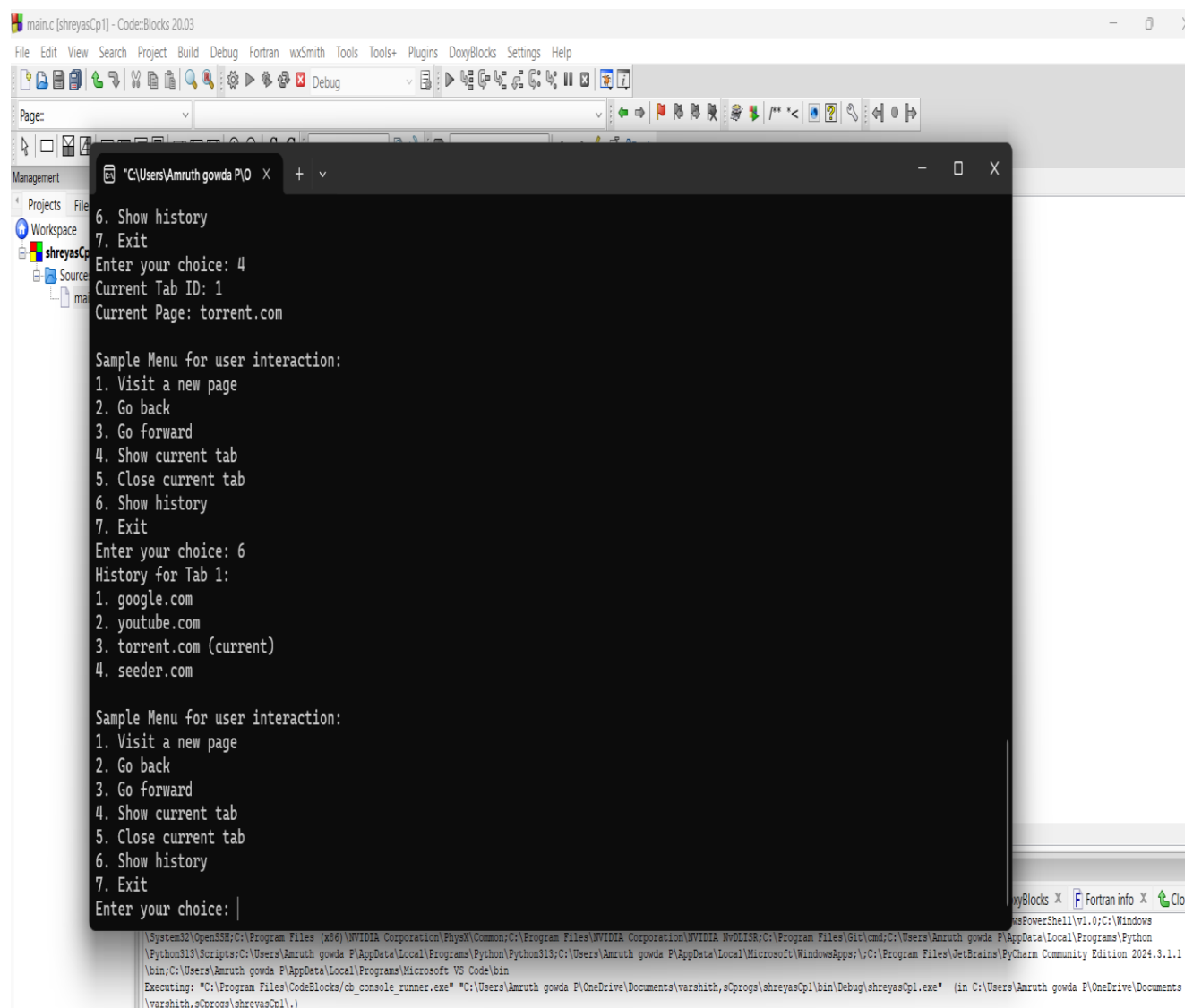

5 (Close current tab)

Frees all pages in that tab's history, removes the tab from the tabs linked list, and switches current_tab either to the next remaining tab or says "All tabs closed."



6 (Show history)

Prints a numbered list of all URLs stored in the current tab's history from the head (oldest) to the tail (newest). The current_page is marked with "(current)".



The screenshot shows a code editor window titled 'main.c [shreyasCp1] - Code::Blocks 20.03'. The editor contains a C program for a web browser. The console output shows the program's execution, including a menu for user interaction and the history of the current tab.

```
main.c [shreyasCp1] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DonyBlocks Settings Help
Page:
Management
Projects File
Workspace
shreyasCp1
Source
main.c

6. Show history
7. Exit
Enter your choice: 4
Current Tab ID: 1
Current Page: torrent.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: 6
History for Tab 1:
1. google.com
2. youtube.com
3. torrent.com (current)
4. seeder.com

Sample Menu for user interaction:
1. Visit a new page
2. Go back
3. Go forward
4. Show current tab
5. Close current tab
6. Show history
7. Exit
Enter your choice: |

[System32\OpenSSH\C:\Program Files (x86)\NVIDIA Corporation\PhysX\Common;C:\Program Files\NVIDIA Corporation\NVIDIA NVMLDR;C:\Program Files\Git\cmd;C:\Users\Amruth gowda P\AppData\Local\Programs\Python\Python313\Scripts;C:\Users\Amruth gowda P\AppData\Local\Programs\Python\Python313;C:\Users\Amruth gowda P\AppData\Local\Microsoft\WindowsApps;C:\Program Files\JetBrains\PyCharm Community Edition 2024.3.1.1\bin;C:\Users\Amruth gowda P\AppData\Local\Programs\Microsoft VS Code\bin
Executing: "C:\Program Files\CodeBlocks\cb_console_runner.exe" "C:\Users\Amruth gowda P\OneDrive\Documents\varshith,sCprogs\shreyasCp1\bin\Debug\shreyasCp1.exe" (in C:\Users\Amruth gowda P\OneDrive\Documents\varshith,sCprogs\shreyasCp1\.)
```

7 (Exit)

Prints “Exiting program.” and quits.

The screenshot shows a web browser window with the address bar displaying 'http://localhost:5000/'. The page title is 'Web Browser'. The main content area shows a simple web application interface. At the top, there is a text input field with the value 'http://localhost:5000/'. Below this, there is a 'Page:' label and a dropdown menu showing 'http://localhost:5000/'. The application has a 'Management' sidebar on the left with options like 'Projects', 'File', 'Workspace', 'shreyasCp', 'Source', and 'ma'. The main content area has a 'Sample Menu for user interaction:' section with a list of options: 1. Visit a new page, 2. Go back, 3. Go forward, 4. Show current tab, 5. Close current tab, 6. Show history, 7. Exit. The user has selected '6. Show history' and the application displays the history for the current tab (Tab 1): 1. google.com, 2. youtube.com, 3. torrent.com (current), 4. seeder.com. The user has then selected '7. Exit' and the application displays the exit message: 'Exiting: C:\Program Files\CodeBlocks\cb_console_runner.exe" C:\Users\Amruth gowda P\OneDrive\Documents\varshith,s\progs\shreyasCp\bin\Debug\shreyasCp.exe" (in C:\Users\Amruth gowda P\OneDrive\Documents\varshith,s\progs\shreyasCp\bin\Debug\shreyasCp.exe)'. The browser's status bar at the bottom shows 'PowerShell (v1.0) C:\Windows'.

The screenshot shows a Windows desktop environment. In the background, a web browser window is open, displaying a simple web page with the title "shreyasCp1" and the content "Hello World!". In the foreground, a terminal window is open, showing the execution of a Python script named "shreyasCp1.py". The script prompts the user for a choice from a menu: 1. Visit a new page, 2. Go back, 3. Go forward, 4. Show current tab, 5. Close current tab, 6. Show history, 7. Exit. The user enters "6", and the terminal displays the history of the browser tabs: 1. google.com, 2. youtube.com, 3. torrent.com (current), 4. seeder.com. The user then enters "7", and the terminal shows "Exiting program." and "Process returned 0 (0x0) execution time : 294.395 s". The terminal also shows the command prompt path: "C:\Users\Amruth gowda\P\O>".

