# Week 3 Linux Projects

Activities

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**How to Create Screenshots:** Please use the Windows Snip and Sketch Tool or the Snipping Tool. Paste a screenshot of just the program you are working on. If you are snipping a virtual machine, make sure your focus is outside the virtual machine before you snip.

1. Press and hold down the **Windows key** & **Shift**, then type **S.** This brings up the on-screen snipping tool.
2. Click and Drag your mouse around whatever you want to snip.
3. Release the mouse button. This places the snip into the Windows Clipboard.
4. Go into Word or wherever you want to paste the snip. Hold down **CTRL**, then type **V** to paste the snip.

## Update Kali Linux

In Kali Linux in the terminal.

|  |
| --- |
| sudo apt update  sudo apt dist-upgrade -y |

## Project 2-1: Root Passwords and BASH Commands

Time required: 20 minutes

In this hands-on project, you set a password for the root user, explore some command-line terminals on a Linux system and enter some basic commands into the BASH shell.

1. Login to Kali. Open a terminal.
2. Type **date** and press **Enter** to view the current date and time.
3. Type **Date** and press **Enter**.
4. Why did you receive an error message?

Click or tap here to enter text.

1. Type **sudo passwd root** and press Enter to start setting the root user password.
2. When prompted, enter your password **Password01**
3. Enter the desired root password of **Password01** twice to set the root user password to **Password01**
4. Logout of the GUI.
5. Log back in as **root** and password of **Password01**
6. Open a terminal.
7. Which prompt did you receive and why?

Click or tap here to enter text.

1. At the command prompt, type **who** and press **Enter** to view the users logged in to the system.
2. Insert a screenshot.

Click or tap here to enter text.

1. Try **cowsay**
2. Insert a screenshot.

Click or tap here to enter text.

1. **cmatrix**
2. Insert a screenshot.

Click or tap here to enter text.

1. **screenfetch**
2. Insert a screenshot.

Click or tap here to enter text.

1. Try typing each command listed in Table 2-6 in order (pressing Enter after each) and observe the output.

**Table 2-6 Some Common Linux Commands**

|  |  |
| --- | --- |
| **Command** | **Description** |
| **clear** | Clears the terminal screen |
| **reset** | Resets your terminal to use default terminal settings |
| **who** | Displays currently logged-in users |
| **w** | Displays currently logged-in users and their tasks |
| **whoami** | Displays your login name |
| **id** | Displays the numbers associated with your user account name and group names; these are commonly referred to as User IDs (UIDs) and Group IDs (GIDs) |
| **date** | Displays the current date and time |
| **cal** | Displays the calendar for the current month |
| **uname** | Displays system information |
| **exit** | Exits out of your current shell |

1. What did the last command (exit) do?

Click or tap here to enter text.

1. Log out of Kali.

## Project 2-2: Help Utilities

Time required: 20 minutes

In this hands-on project, you find information about commands using help utilities.

1. Log in to Kali with user. Open a terminal.
2. Type **sudo mandb** to generate or update the manual pages index.
3. At the command prompt, type **man –k cron** and press **Enter** to view a list of manual pages that have the word “cron” in the name or description. Use Table 2-8 to determine what type of manual pages are displayed.
4. How many manual pages are there for crontab? Are they different types of manual pages?

Click or tap here to enter text.

**Table 2-8 Linux Manual Page Section Numbers**

|  |  |
| --- | --- |
| **Manual Page Section** | **Description** |
| 1 | Commands that any user can execute |
| 2 | Linux system calls |
| 3 | Library routines |
| 4 | Special device files |
| 5 | File formats |
| 6 | Games |
| 7 | Miscellaneous |
| 8 | Commands that only the root user can execute |
| 9 | Linux kernel routines |
| N | New commands not categorized yet |

1. At the command prompt, type **man crontab** and press **Enter** to view the manual page for the crontab command. Observe the syntax of the crontab command.
2. **Insert a screenshot:**

Click or tap here to enter text.

1. Press **q** when finished to quit the manual page and return to your command prompt.
2. At the command prompt, type **man 5 crontab** and press **Enter** to view the manual page for the crontab file format. Observe the syntax of the crontab file format and press **q** when finished to quit the manual page and return to your command prompt.
3. At the command prompt, type **info** and press **Enter**. You will be prompted to install info. Install it.
4. Type **info** to view a list of available GNU info pages. When finished, press **q** to quit the info utility.
5. At the command prompt, type **info date** and press **Enter** to view syntax information regarding the date command, and press **q** to quit the info utility when finished.

## Project 2-3: Properly Shut Down Linux

Time Required: 5 minutes

In this hands-on project, you properly shut down your Linux system.

1. Log in to Kali with user. Open a terminal.
2. The typical way to shut download Linux: at the terminal🡪 **poweroff** to shut down your Linux system immediately.
3. Which commands from Table 2-9 can also be used to shut down your Linux system?

Click or tap here to enter text.

**Table 2-9 Commands to Halt and Reboot the Linux Operating System**

|  |  |
| --- | --- |
| **Command** | **Description** |
| shutdown −H +4 | Halts your system in four minutes |
| shutdown −r +4 | Reboots your system in four minutes |
| shutdown −H now | Halts your system immediately |
| shutdown −r now | Reboots your system immediately |
| shutdown −c | Cancels a scheduled shutdown |
| halt | Halts your system immediately |
| poweroff | Halts your system immediately and powers down the computer |
| reboot | Reboots your system immediately |

## Assignment Submission

Submit this completed document in Blackboard.