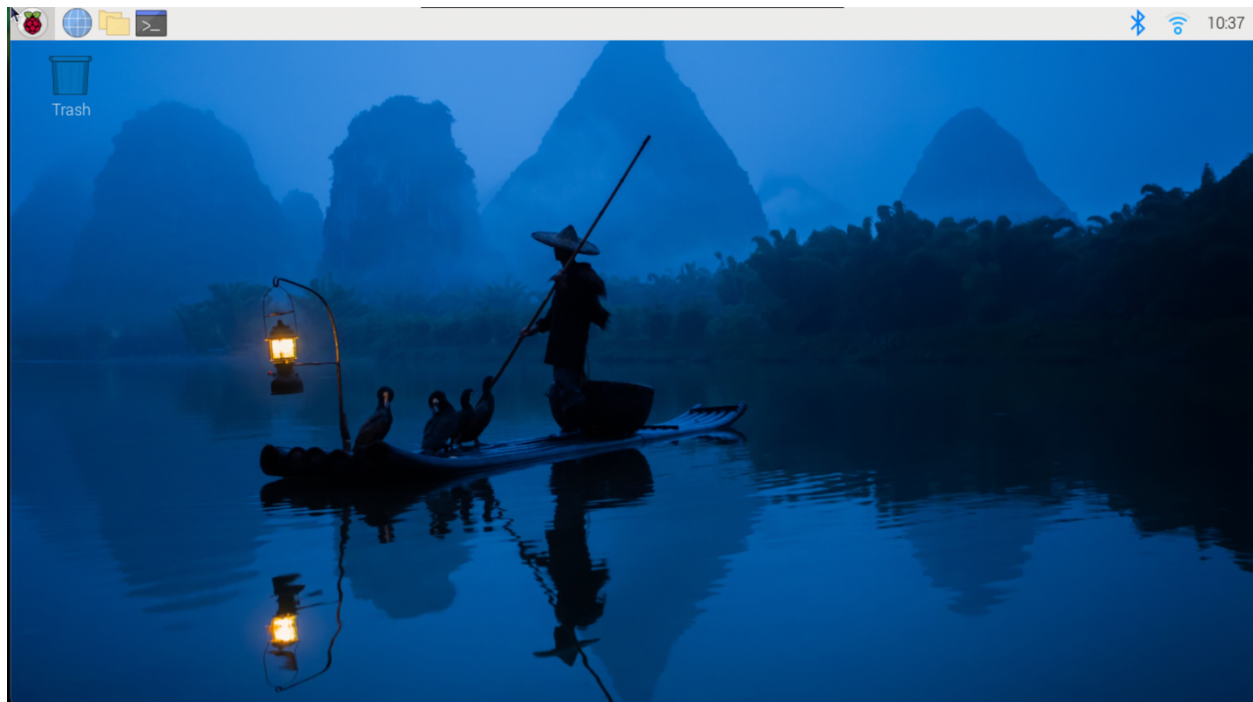


Assignment 1: Getting Started with Raspberry Pi OS Installation

Task 1: Exploring the Raspberry Pi Desktop Environment

Deliverable:



Application Menu:

Contains shortcuts to usefull programs in different catageories, and allows you to logout.

Web Browser:

A chromium based web browser that allows you to access the web

File Manager:

Look at and access your files in a gui

Terminal:

Brings up a terminal window

Bluetooth:

Allows you to make and disconnect Bluetooth connections

WiFi:

Allows you to make and disconnect Wifi connections

Calander/Clock:

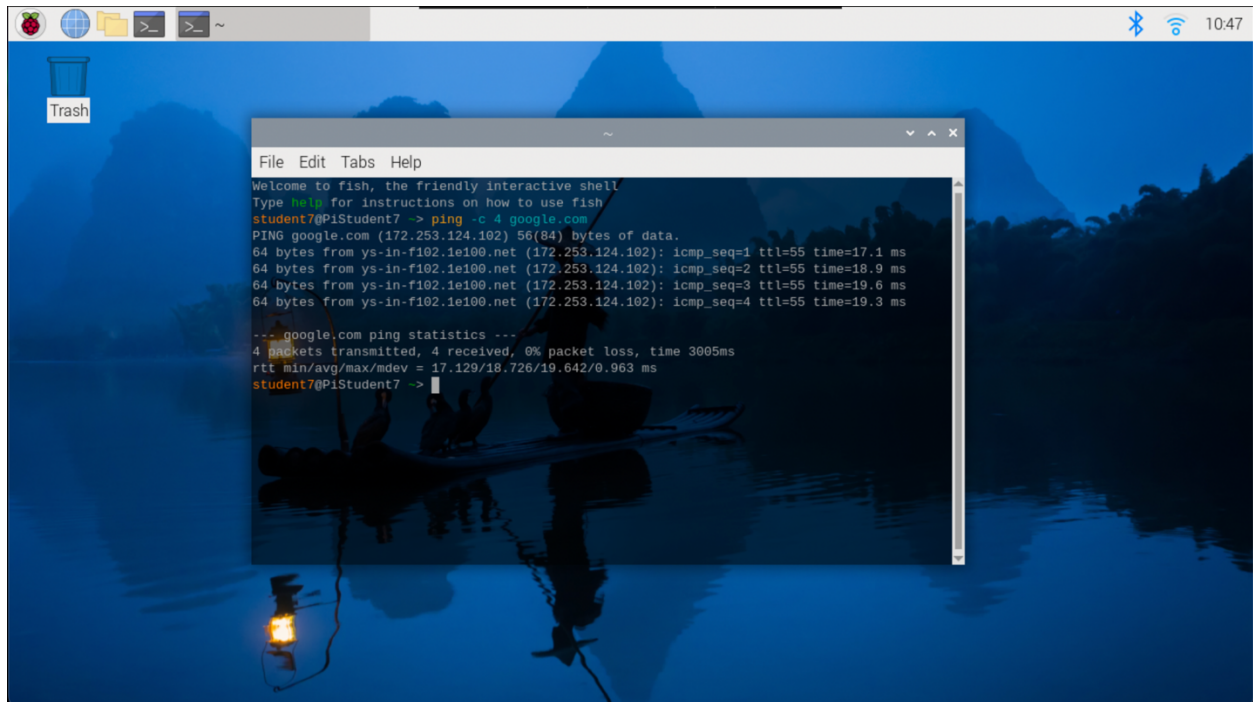
Displays the current time and date

Trash:

Where you put items you want to delete or recover deleted items

Task 2: Testing Internet Connectivity

Deliverable:



Task 3: Exploring Installed Software

Deliverable:

1. A short list of three tools and their descriptions.

- Thonny
 - A python runtime and ide
- Firefox
 - A web browser for accessing the internet
- Task Manager
 - A app that lets you view current processes and their usage of system resources

Task 4: Personalized Raspberry Pi Dashboard

Deliverables:

```
garrett at Garretts-MacBook-Pro in ~
❯ ssh PiStudent7
Linux PiStudent7 6.6.62+rpt-rpi-2712 #1 SMP PREEMPT Debian 1:6.6.62-1+rpt1 (2024-11-25) aarch64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Fri Jan 17 11:02:51 2025 from 10.5.195.175
Welcome to Garrett's Raspberry Pi!
Current date and time: Fri Jan 17 11:03:36 AM EST 2025
System uptime: up 37 minutes
Welcome to fish, the friendly interactive shell
Type help for instructions on how to use fish
garrett@PiStudent7 ~$ sudo apt install htop
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  chromium-browser chromium-browser-l10n chromium-codecs-ffmpeg-extra edid-decode libcamera0.2 libqt5qmlworkerscript5
  libqt5quickcontrols2-5 libqt5quicktemplates2-5 libraspberrypi0 libwpe-1.0-1 libwpebackend-fdo-1.0-1 python3-gi-cairo
  qml-module-qtgraphicaleffects qml-module-qtquick-controls2 qml-module-qtquick-layouts qml-module-qtquick-templates2
  qml-module-qtquick-window2 qml-module-qtquick2
Use 'sudo apt autoremove' to remove them.
Suggested packages:
  lm-sensors
The following NEW packages will be installed:
  htop
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 144 kB of archives.
After this operation, 403 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main arm64 htop arm64 3.2.2-2 [144 kB]
Fetched 144 kB in 0s (1,089 kB/s)
Selecting previously unselected package htop.
(Reading database ... 152459 files and directories currently installed.)
Preparing to unpack .../htop_3.2.2-2_arm64.deb ...
Unpacking htop (3.2.2-2) ...
Setting up htop (3.2.2-2) ...
Processing triggers for mailcap (3.70+nmu1) ...
Processing triggers for desktop-file-utils (0.26-1) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1.1) ...
Processing triggers for man-db (2.11.2-2) ...
garrett@PiStudent7 ~$
```

```

0[          0.0%] Tasks: 87, 127 thr, 123 kthr; 2 running
1[          0.0%] Load average: 0.32 0.13 0.12
2[          0.7%] Uptime: 00:38:28
3[          0.0%]
Mem[|||||||] 479M/3.95G
Swp[          0K/200M]

```

Main	I/O										
PID	USER	PRI	NI	VIRT	RES	SHR	S	CPU%	MEM%	TIME+	Command
1038	student7	20	0	866M	117M	83808	S	0.0	2.9	0:44.98	/usr/bin/wayfire
1180	student7	39	19	866M	117M	83808	S	0.0	2.9	0:00.00	/usr/bin/wayfire
1181	student7	39	19	866M	117M	83808	S	0.0	2.9	0:00.00	/usr/bin/wayfire
1182	student7	39	19	866M	117M	83808	S	0.0	2.9	0:00.00	/usr/bin/wayfire
3350	student7	20	0	866M	117M	83808	S	0.0	2.9	0:00.00	/usr/bin/wayfire
3351	student7	20	0	866M	117M	83808	S	0.0	2.9	0:00.00	/usr/bin/wayfire
3354	student7	20	0	866M	117M	83808	S	0.0	2.9	0:00.00	/usr/bin/wayfire
3415	student7	20	0	309M	83264	55168	S	0.0	2.0	0:00.74	/usr/bin/Xwayland -auth /home/student7/.Xauthority :0 -rootl
3419	student7	39	19	309M	83264	55168	S	0.0	2.0	0:00.00	/usr/bin/Xwayland -auth /home/student7/.Xauthority :0 -rootl
1221	student7	20	0	629M	68992	33792	S	0.0	1.7	0:03.20	pcmanfm --desktop --profile LXDE-pi
1241	student7	20	0	629M	68992	33792	S	0.0	1.7	0:00.00	pcmanfm --desktop --profile LXDE-pi
1248	student7	20	0	629M	68992	33792	S	0.0	1.7	0:00.01	pcmanfm --desktop --profile LXDE-pi
1253	student7	20	0	629M	68992	33792	S	0.0	1.7	0:00.00	pcmanfm --desktop --profile LXDE-pi
1230	student7	20	0	939M	63744	46336	S	0.0	1.5	1:11.38	wf-panel-pi
1255	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.00	wf-panel-pi
1257	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.09	wf-panel-pi
1271	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.00	wf-panel-pi
1467	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.00	wf-panel-pi
1468	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.00	wf-panel-pi
1595	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.00	wf-panel-pi
1619	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.00	wf-panel-pi
1331	student7	20	0	280M	57856	45056	S	0.0	1.4	0:00.03	/usr/libexec/xdg-desktop-portal-wlr
1332	student7	39	19	280M	57856	45056	S	0.0	1.4	0:00.00	/usr/libexec/xdg-desktop-portal-wlr
893	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:12.26	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1109	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.36	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1110	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.42	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1111	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.41	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1112	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.39	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1036	student7	9	-11	685M	40240	28080	S	0.0	1.0	0:00.17	/usr/bin/wireplumber
1059	student7	20	0	685M	40240	28080	S	0.0	1.0	0:00.00	/usr/bin/wireplumber
1077	student7	20	0	685M	40240	28080	S	0.0	1.0	0:00.00	/usr/bin/wireplumber
1156	student7	20	0	685M	40240	28080	S	0.0	1.0	0:00.00	/usr/bin/wireplumber
1157	student7	-21	0	685M	40240	28080	S	0.0	1.0	0:00.00	/usr/bin/wireplumber
1166	student7	20	0	685M	40240	28080	S	0.0	1.0	0:00.00	/usr/bin/wireplumber
1167	student7	20	0	685M	40240	28080	S	0.0	1.0	0:00.00	/usr/bin/wireplumber
1170	student7	20	0	685M	40240	28080	S	0.0	1.0	0:00.00	/usr/bin/wireplumber
3512	student7	20	0	527M	37888	27136	S	0.0	0.9	0:00.15	lxterminal

```

0[          0.0%] Tasks: 87, 127 thr, 124 kthr; 1 running
1[          0.0%] Load average: 0.19 0.12 0.12
2[|         0.7%] Uptime: 00:38:59
3[          0.0%]
Mem[||||||| 479M/3.95G]
Swp[          0K/200M]

```

Main I/O

PID	USER	PRI	NI	VIRT	RES	SHR	S	CPU%	MEM%	TIME+	Command
1230	student7	20	0	939M	63744	46336	S	0.0	1.5	1:11.39	wf-panel-pi
1038	student7	20	0	866M	117M	83808	S	0.0	2.9	0:44.99	/usr/bin/wayfire
893	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:12.26	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1221	student7	20	0	629M	68992	33792	S	0.0	1.7	0:03.20	pcmanfm --desktop --profile LXDE-pi
1110	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.42	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1111	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.41	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1112	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.39	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1109	vnc	20	0	517M	52672	36352	S	0.0	1.3	0:01.36	wayvnc --render-cursor --detached --config /etc/wayvnc/confi
1	root	20	0	166M	11696	7680	S	0.0	0.3	0:01.23	/sbin/init splash
3415	student7	20	0	309M	83264	55168	S	0.0	2.0	0:00.74	/usr/bin/Xwayland -auth /home/student7/.Xauthority :0 -rootl
709	messagebus	20	0	10112	4096	3072	S	0.0	0.1	0:00.67	/usr/bin/dbus-daemon --system --address=systemd: --nofork --
4164	garrett	20	0	8752	4096	2560	R	0.7	0.1	0:00.47	htop
826	root	20	0	257M	19456	14848	S	0.0	0.5	0:00.30	/usr/sbin/NetworkManager --no-daemon
313	root	20	0	50544	14848	13824	S	0.0	0.4	0:00.23	/lib/systemd/systemd-journald
717	polkitd	20	0	303M	8704	5632	S	0.0	0.2	0:00.22	/usr/lib/polkit-1/polkitd --no-debug
1036	student7	9	-11	685M	40240	28080	S	0.0	1.0	0:00.17	/usr/bin/wireplumber
1217	student7	20	0	64336	35328	17920	S	0.0	0.9	0:00.16	/usr/bin/python3 /usr/share/system-config-printer/applet.py
3512	student7	20	0	527M	37888	27136	S	0.0	0.9	0:00.15	lxterminal
704	root	20	0	232M	6144	5120	S	0.0	0.1	0:00.13	/usr/libexec/accounts-daemon
1006	student7	20	0	20336	10752	8192	S	0.0	0.3	0:00.13	/lib/systemd/systemd --user
2045	garrett	20	0	561M	26624	19456	S	0.0	0.6	0:00.13	/usr/bin/wireplumber
345	root	20	0	27696	6656	4096	S	0.0	0.2	0:00.10	/lib/systemd/systemd-udevd
927	colord	20	0	238M	11264	7680	S	0.0	0.3	0:00.10	/usr/libexec/colord
1197	student7	20	0	333M	19456	13824	S	0.0	0.5	0:00.10	/usr/libexec/polkit-mate-authentication-agent-1
2027	garrett	20	0	20208	10240	8192	S	0.0	0.2	0:00.10	/lib/systemd/systemd --user
731	root	20	0	34144	7168	6144	S	0.0	0.2	0:00.09	/lib/systemd/systemd-logind
1257	student7	20	0	939M	63744	46336	S	0.0	1.5	0:00.09	wf-panel-pi
824	polkitd	20	0	303M	8704	5632	S	0.0	0.2	0:00.08	/usr/lib/polkit-1/polkitd --no-debug
1150	root	20	0	101M	19456	8192	S	0.0	0.5	0:00.08	python /usr/sbin/wayvnc-control.py
1318	student7	20	0	333M	21504	15360	S	0.0	0.5	0:00.08	/usr/libexec/xdg-desktop-portal-gtk
868	root	20	0	257M	19456	14848	S	0.0	0.5	0:00.07	/usr/sbin/NetworkManager --no-daemon
1051	student7	20	0	8976	3584	3072	S	0.0	0.1	0:00.07	/usr/bin/dbus-daemon --session --address=systemd: --nofork -
707	root	20	0	13776	5120	4608	S	0.0	0.1	0:00.06	/usr/libexec/bluetooth/bluetoothd
828	root	20	0	17808	10752	9216	S	0.0	0.3	0:00.06	/sbin/wpa_supplicant -u -s -O DIR=/run/wpa_supplicant GROUP=
1237	student7	20	0	332M	18432	13312	S	0.0	0.4	0:00.06	gtk-nop
4045	garrett	20	0	156M	6656	5120	S	0.0	0.2	0:00.06	-fish
852	root	20	0	244M	12288	9216	S	0.0	0.3	0:00.05	/usr/sbin/ModemManager


```

0[          0.0%] Tasks: 87, 127 thr, 123 kthr; 2 running
1[          0.0%] Load average: 0.33 0.12 0.12
2[|         0.7%] Uptime: 00:37:56
3[          0.0%]
Mem[||||||| 479M/3.95G]
Swp[          0K/200M]

```