**Section 5**

Mastering task automation and scheduling - Duration : 53 min

1.Creating bash scripts Part 1

* ".sh" is extension for bash shell file.
* "#!" - Shebang line.
* Head of the file must contain "#!/bin/bash".
* Type in the commands after 1 line and save it.
* To run use "bash" command and filename.

2.Creating bash scripts Part 2

* Error can be sent to a bit bucket. NULL location - " /dev/null"
* Example : to create backup file.

Tar -czf backup.tar.gz ~/{Documents,Desktop,…} 2>/dev/null

* "chmod" command is used for modifying permissions.
* "chmod +x" command makes a file executable.
* To make executable file run from anywhere, include it in PATH.
* Path : ".bashrc"
* Include this line in last of .bashrc file "PATH="$PATH:$HOME/bin"

3.Scheduled automation using cron Part 1

* Use "crontab -e" command to start timed command automation.
* Add the time for the command to be executed.
* Format: minute hour date\_of\_month month day\_of\_week command.
* Use "\*" in fields for the command to run every minute/hour/date/month/day.
* Example: 1 \* \* \* \* echo "Hello world" >> ~/Desktop/Hello.txt

It will append hello world in hello.txt file every minute.

4.Scheduled automation using cron Part 2

* Change default editor using ".selected\_editor" file or type "select-editor" command and select the number.
* We can use multiple input in one field seperated by ","
* "\*/15" input in field will automate in every 15 minutes or so.
* Crontab.guru is a useful website to know about crontab.
* Use bash file as command in crontab

Usage: in command part : bash <Path>