

Hello friends,

I hope you're all doing well.

The following exercises are not exam questions, but rather open-ended prompts whose answers can often be found online, through chatbots, or even in technical interviews. These are intended to encourage deeper exploration and self-directed learning based on your current knowledge.

We've selected these questions based on real-world experience and past exam patterns to help you better understand the types of concepts that appear in the LPIC exam. Many of the questions don't have a single correct answer — instead, they are designed to broaden your perspective and understanding.

Please be kind and patient with yourself as you write and research your responses.

Please complete the following exercises using the same format as the directory structure below. Combine your answers into a single PDF file named **answer.pdf** and submit a pull request.

Reference format:

[https://github.com/devopsdoctors/Academy/tree/main/L1-JavanPahlevanan/Exercises/T\(x\)/name-family\(emailAddress\)/answer.pdf](https://github.com/devopsdoctors/Academy/tree/main/L1-JavanPahlevanan/Exercises/T(x)/name-family(emailAddress)/answer.pdf)

Sample answer file:

[https://github.com/devopsdoctors/Academy/tree/main/L1-JavanPahlevanan/Exercises/T1/ali-far hadian\(alifrd49@gmail.com\)/answer.pdf](https://github.com/devopsdoctors/Academy/tree/main/L1-JavanPahlevanan/Exercises/T1/ali-far hadian(alifrd49@gmail.com)/answer.pdf)

1. Please explain the use cases of soft and hard links. When should we use a soft link, and when is a hard link more appropriate?
2. Describe the inode relationship of soft links. How do inodes work with soft and hard links? Please show inode numbers and explain how the inode accesses the data on the hard disk.
3. What is the `/opt` directory used for? How does it differ from `/etc` and `/sbin` in terms of purpose and usage?
4. Compare the `locate` and `find` commands. Which one is faster, and why?
5. Please explain how your device's `updatedb.conf` is configured. How does it affect the behavior of the `locate` command?
6. What is the difference between `.bashrc` and `.bash_profile`? What is the purpose of `/etc/bash_completion`?
7. What kind of information is stored in `.bash_logout` and `.bash_login`? What are their typical use cases?
8. Please demonstrate how to customize the command prompt (PS1) in the `.bashrc` file.
9. Write a Bash script that takes a webpage URL as input and downloads all the URLs (links) found on that page.
10. Please explain the use of the `exit` command and other common exit-related statements in Bash scripting.