Task 1:

A screenshot of a computer

Description automatically generated

Task 2A:

A computer screen shot of a computer

Description automatically generated

A computer screen shot of a computer screen

Description automatically generated

Task 2B:

A screen shot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Task 2C:

A screen shot of a computer code

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

**Questions**

1. The sleep command forces a context switch, allowing us to execute our commands to change the symbolic links while the vulp process was in a waiting state.
2. Because we no longer had the sleep command in the vulp process, we could not guarantee that a context switch would take place between the access and fopen commands, and that our attack process would run in the gap between them. Running multiple times gave us multiple chances to have our attack execute during the desired context switch.
3. The setuid bit causes the OS to temporarily set that process’ effective userid to be that of the file’s owner. This allows the file to access resources that the calling process might not have the privilege to access. In this case, we set the owner of the file to be root, which resulted in the process having root level access.