

# Simple Loadable Module

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**24 October 2019**



# Learning Objective



# Learning Objective

- **Implement a simple loadable module**



# Learning Objective

- Implement a simple loadable module
- Create a **Makefile**



# Learning Objective

- Implement a simple loadable module
- Create a **Makefile**
- Compile a module



# System Requirements



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- VirtualBox 5.2



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- **VirtualBox 5.2**
- **Ubuntu Linux 18.04 LTS**  
**Operating System**





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- **Linux kernel version 5.0.0-31**  
**generic**
- **gedit text editor**



# Prerequisites



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If not, then go through the C/C++ and Linux spoken tutorials on

<https://spoken-tutorial.org>





# gedit Installation



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- To proceed further, make sure that **gedit** is installed on your system



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- If not, to do the installation, follow the instructions in gedit series on <https://spoken-tutorial.org>



# What is a kernel module?



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- Code that is added to the kernel at runtime is called a module
- It extends the functionality of the kernel without the need to reboot the system
- It communicates with the base kernel to complete their functions



# Code Files - sample\_module.c





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- Please download the file **simple\_module.c** from the **Code Files** link of this tutorial



# Code Files - sample\_module.c

- Please download the file **simple\_module.c** from the **Code Files** link of this tutorial
- Make use of this file while practising



# Code Files - sample\_module.c

- Please download the file **simple\_module.c** from the **Code Files** link of this tutorial
- Make use of this file while practising
- Remember the file path



# Summary

- **Implement a simple loadable module**
- **Create a Makefile**
- **Compile a module**



# Assignment

- 1 Open the `simple_module.c` file
- 2 Change the module description using `MODULE_DESCRIPTION` macro
- 3 Run the `modinfo` command
- 4 See the output of description



# About the Spoken Tutorial Project

- Watch the video available at [https://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](https://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial Project
- If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshop

## The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates on passing online tests
- For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Forum questions

- Questions in THIS Spoken Tutorial?
- Visit  
<https://forums.spoken-tutorial.org/>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer

**You will have to register to ask questions**





# Forum questions

- **The Spoken Tutorial forum is for specific questions on this tutorial**
- **Please do not post unrelated and general questions on them**
- **This will help reduce the clutter**
- **With less clutter, we can use these discussions as instructional material**



# Forum to specific questions

- Questions not related to the Spoken Tutorial?
- Do you have general / technical questions on the Embedded Linux Device Driver?
- Please visit the FOSSEE Forum  
<https://forums.fossee.in/>
- Choose the Software and post your question



# Acknowledgements

**Spoken Tutorial project is supported by**

- **National Mission on Education through ICT (NMEICT)**
- **Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching**

**Initiatives of MHRD, Government of India**



# THANK YOU!

For more Information, visit our website  
<https://fossee.in/>

