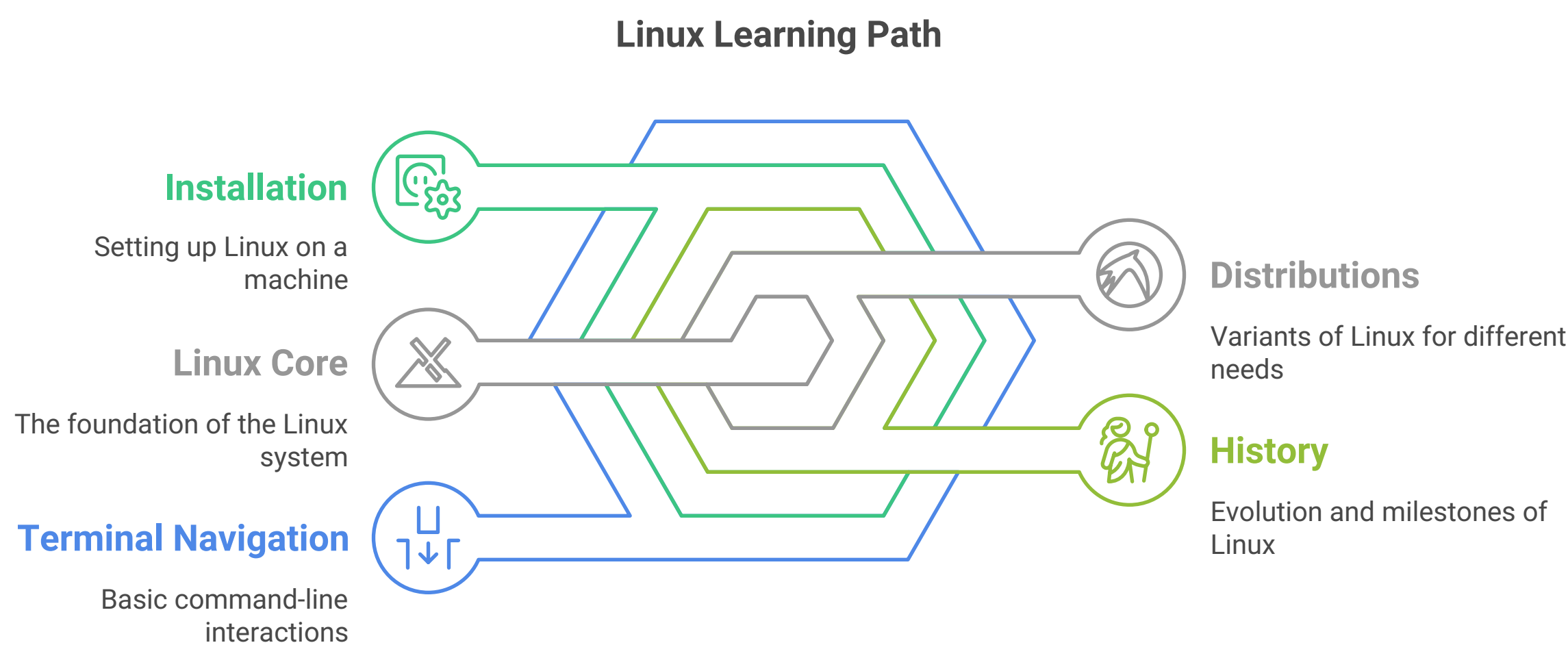


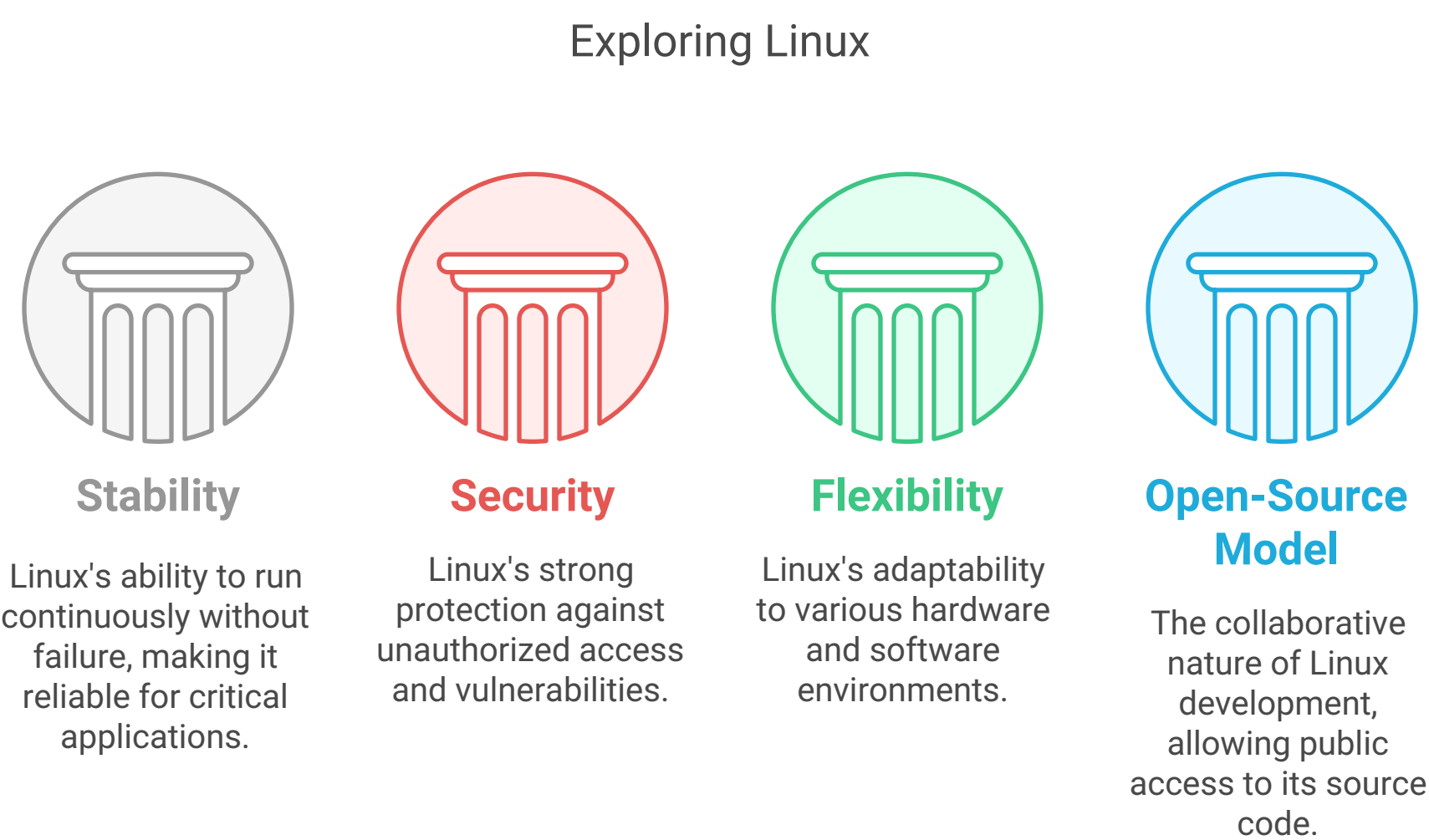
# Day 1: Introduction to Linux

This document serves as a guide for Day 1 of your journey into the world of Linux. It provides an overview of essential topics, including what Linux is, its distributions, the significance of the Linux kernel, and a brief history of Linux. Additionally, it outlines actions to help you get started with Linux, including installation and basic terminal navigation.



## What is Linux?

Linux is an open-source operating system that is widely used across various platforms, including servers, desktops, and embedded systems. It is known for its stability, security, and flexibility. Unlike proprietary operating systems, Linux allows users to view, modify, and distribute its source code, fostering a collaborative development environment.

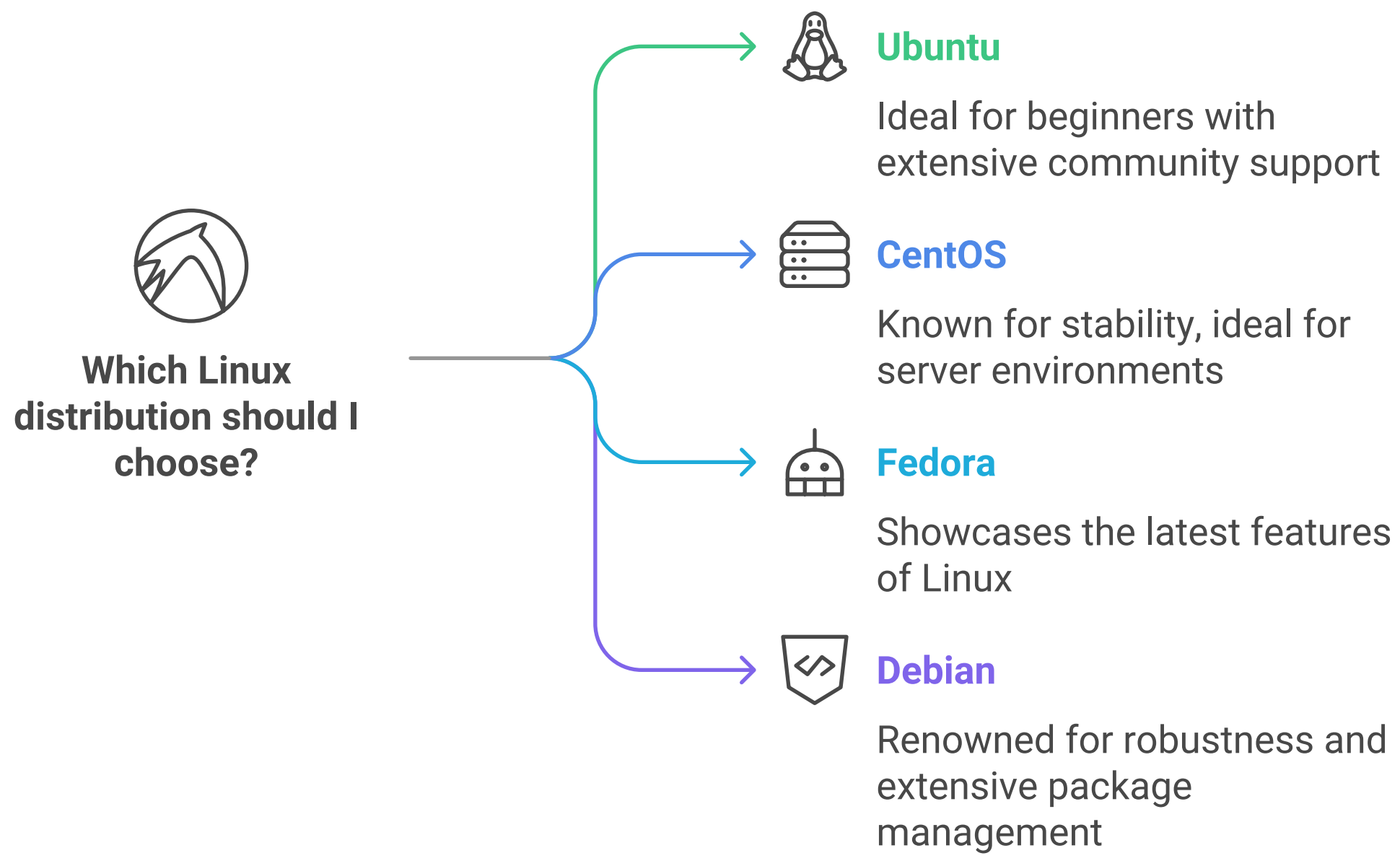


## Overview of Linux Distributions

Linux comes in various distributions [distros], each tailored for specific use cases and user preferences. Some popular distributions include:

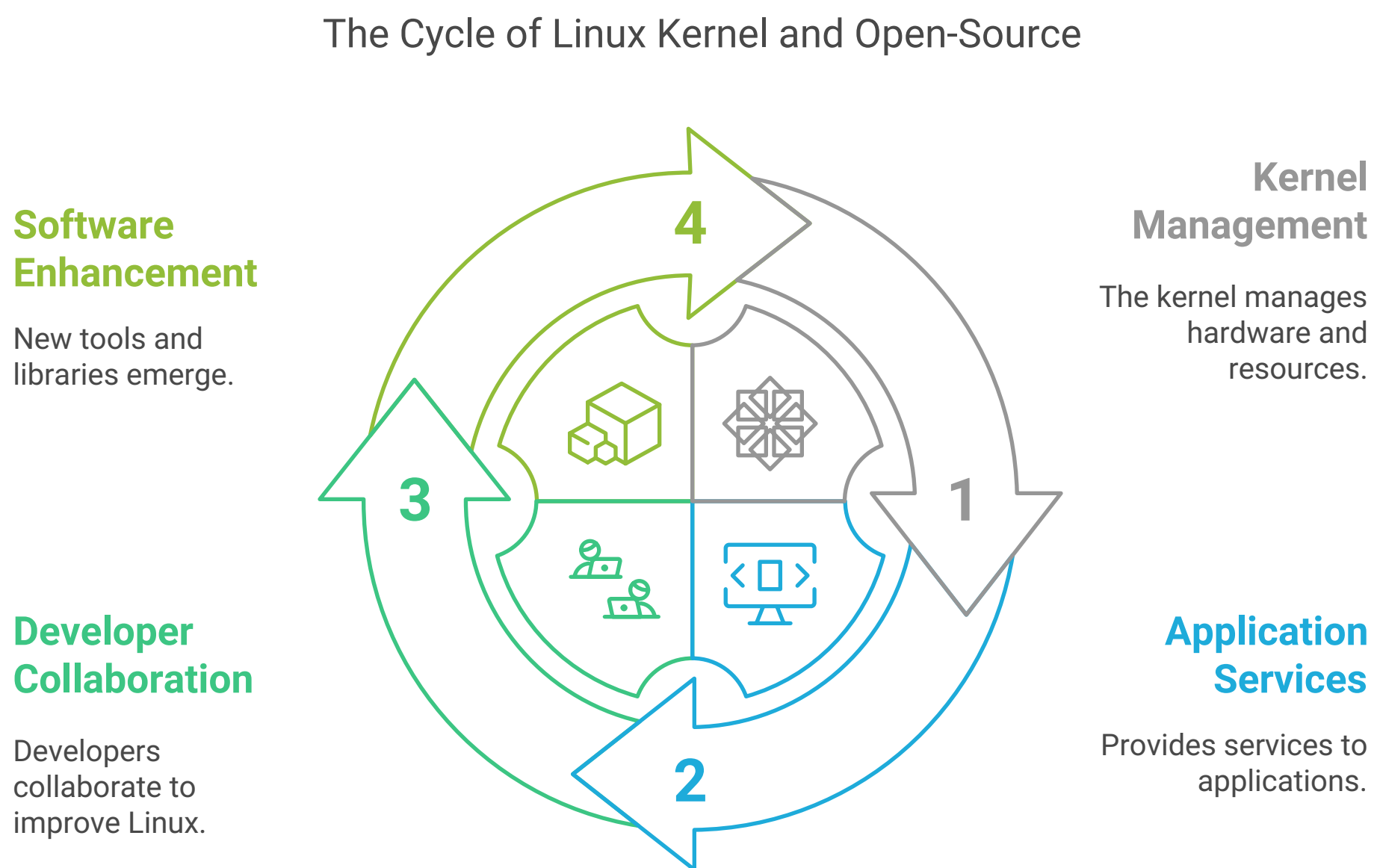
- **Ubuntu**: User-friendly and ideal for beginners, with extensive community support.
- **CentOS**: Known for its stability and used primarily in server environments.

- **Fedora:** A cutting-edge distribution that showcases the latest features of Linux.
- **Debian:** Renowned for its robustness and extensive package management system.



### Linux Kernel and the Open-Source Ecosystem

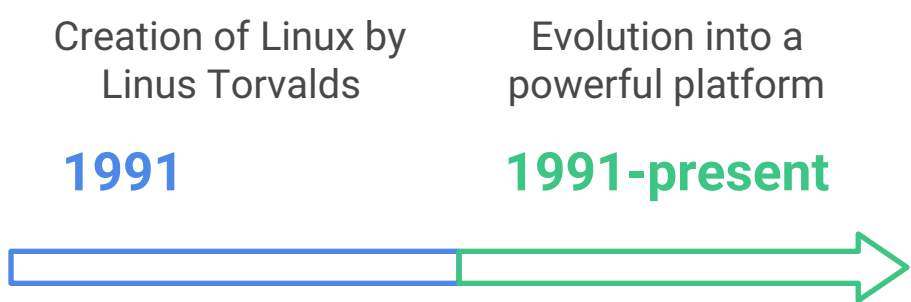
The Linux kernel is the core component of the Linux operating system, managing hardware resources and providing essential services to applications. The open-source ecosystem surrounding Linux encourages collaboration among developers, leading to continuous improvements and innovations. This ecosystem includes a vast array of software applications, libraries, and tools that enhance the Linux experience.



### Basic Linux History

Linux was created by Linus Torvalds in 1991 as a personal project to develop a free operating system kernel. Over the years, it has evolved into a powerful platform used in various domains, from web servers to mobile devices. Its open-source nature has led to widespread adoption and a vibrant community of users and developers.

## The Evolution of Linux: From Kernel to Community

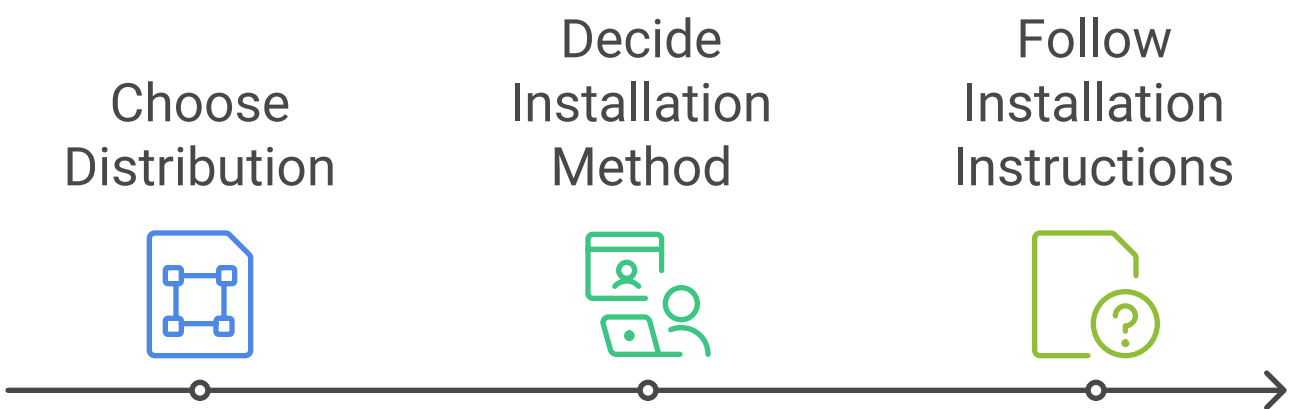


### Actions

#### Install Ubuntu or Any Preferred Distribution

To begin your Linux journey, install Ubuntu or any other preferred distribution. You can choose to set it up on a virtual machine [VM] or as a dual boot alongside your existing operating system. Follow the installation instructions provided by the distribution's official website.

#### Installing Linux Distributions



#### Familiarize Yourself with the Terminal

The terminal is a powerful tool in Linux that allows you to interact with the operating system using command-line instructions. Spend some time exploring the terminal and its capabilities.

### Understanding Terminal's Role in Linux



#### Basic Terminal Navigation

Start by learning some basic commands for terminal navigation:

- **pwd**: Displays the current working directory.
- **ls**: Lists the files and directories in the current directory.
- **cd**: Changes the current directory. Use **cd <directory\_name>** to navigate into a specific directory.

# Command Line Commands

## Current Directory

Displays the current working directory.

## List Files

Lists the files and directories in the current directory.

## Change Directory

Changes the current directory to a specified one.