

First Report Unix Development

Hello World in C

```
#include <stdio.h>

int main()
{
    printf("Hello, World C!\n");
    return 0;
}
```

Hello World in C++

```
#include <iostream>

int main()
{
    std::cout << "Hello, World C++!" << std::endl;
    return 0;
}
```

File System in Fedora

Fedora uses the **ext4** file system by default. The ext4 file system is an enhanced version of ext3, offering features such as:

- **Larger file and file system sizes:** Ext4 supports larger file and file system sizes compared to ext3.
- **Improved space management:** Ext4 employs techniques like block allocation and space reservation to enhance disk space management.
- **Better performance:** Ext4 provides better performance in terms of read and write speeds compared to ext3.
- **Security features:** Ext4 includes features like file integrity checking and encryption, enhancing data security within the file system.

Disk Partitions in Fedora

The partition setup in Fedora can vary, but a typical configuration includes the following partitions:

1. **Root Partition (/):** This is the main system partition mounted at `/`. It contains the operating system files and installed programs.

2. **Boot Partition (/boot):** The `/boot` partition contains boot loader files and kernel images necessary for the system to boot. It is often a separate partition for better system management and security.
3. **Swap Partition:** Fedora typically has a swap partition used as virtual memory when the RAM is full. This partition does not have a specific mount point.
4. **User Data Partition (/home):** In some setups, a separate partition is configured for the `/home` directory. This partition holds user data such as documents, images, and personal configurations.