Unix 420-321-VA

Section: 00001

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Lab #10

Project description/goals

Our goal is to build a custom live system specifically for the media industry. We will create a

working ubuntu iso image with specific packages for media professionals. This includes

providing them with software combinations that are customized to them (such as Photoshop

alternatives, video and audio editing, painting tools, etc).

Platform of choice

This project will be completed on Github and will be updated to the most recent version. We will

be building the system using Oracle VM Virtual Machine. We found some packages suitable for

users with professional needs for video, audio, and photo editing on linux distributions after

conducting some online research. GIMP, Pinta, MyPaint, Audacity, and Shotcut are some of the

applications that are available.

Requirements

• *The creation of multiple user accounts:* When using our specific target operating system,

account creation is required. Users can create as many accounts as they want. We will also use

different accounts to assess the usability of this project during development.

• *Process or service management*: View and manage running processes by using the ps command

in the terminal.

• *Basic system security*: The Debian distribution can guarantee basic system security. Backup data to prevent data loss due to system failure. Establish strong passwords to enhance the confidentiality and availability of the system.

• *Automated tasks using a script language*: Shell Scripting will be used in the linux terminal for this project. We'll provide you with the commands you'll need to achieve our task.

• *Custom Live Image:* We will be using Debian distribution to create a live image of a media-based OS of our own.

Major technical solutions compared

Solution 1 -Debian :

Debian requires downloading the live build and manually configuring the required files. There are not many tutorials on creating custom iso images for Debian. After trying it out, we also feel that Debian is a bit more complicated.

Soulution 2 -Ubuntu:

Ubuntu comes with a software called Cubic to customize the iso image. There are a number of related tutorials available on the internet. In general, it will be easier to use than Debian. Ubuntu offers the advantage of having Ubuntu Studio, which integrates photo, video, and audio editing functions.

Timeline

Week 1: Setting up Github repository + Research + Try to create a Live iso Image (include features and application for media domain)

Week 2: Improving the trial

Week 3: Automated tasks & Implementing guided installation (Optional: upon System Installation: audio only apps, image only apps, etc).

Week 4: Project Closing (License) and Presentation Preparation

Team composition:

Jiamin Yuan & Jonathan Dimitriu