

**ICS 102
INTRODUCTION TO
COMPUTING
LAB (SEC. 52)**

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-Azam.

WHO AM I?!

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PREREQUISITES

- Your Breakfast!!
- About Prayer Time!
- Practice...
- Reading Lectures.
- Ability to ask Questions!

COURSE CONTRACT!

- Write down **important** notes.
- Ask **immediately** whenever a question rises.
- Nothing is a **trivial** questions (at least it is yours! 😊).
- Tell your feelings, don't **repress** them.
 - Your Signature Please _____ !!

HOW TO SUCCESS IN CS?!

- Love!
- Think!
- Try!
- Understand!
- Never memorize!!
- Ask!
- Do your best! (No wrong answers!)
- KISS
- Pray.



LETS BEGIN...

Salaam Shabab!!

-Azam.

OBJECTIVES

- What is Linux
- Understanding Linux File System
- Starting the Linux virtual machine
- Create and maintain files and directories of files.
- Be familiar with PICO to create and modify a text file
- How to edit, compile, and run Java programs

WHAT IS LINUX

- UNIX:
 - a powerful operating system.
 - originally developed at AT&T Bell Labs.
 - Very popular among:
 - scientific,
 - engineering, and
 - academic communities.

WHAT IS LINUX

- UNIX main parts:
 - Kernel
 - manages the resources
 - File system
 - the most important part
 - organising structure for data
 - Shell
 - command interpreter

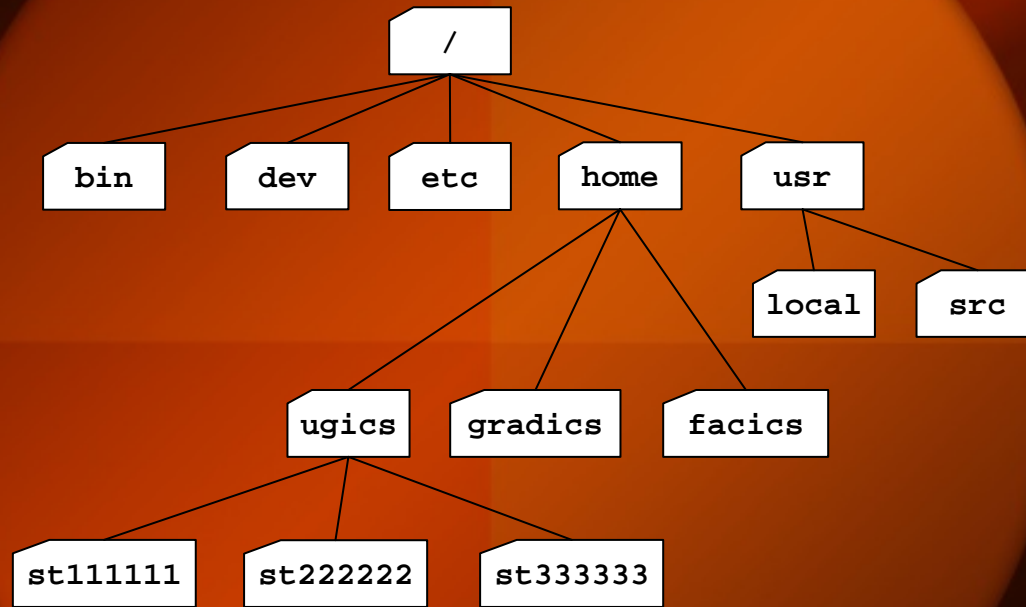
WHAT IS LINUX (CONT)

- Linux:
 - a freely available,
 - open source,
 - Unix-like operating System
 - Written by Linus Torvalds
 - A young student in the University of Helsinki (We are waiting for YOURS ☺)

LINUX FILE SYSTEM

- Logical
- Hierarchical
- Similar to DOS and Windows BUT
 - Windows, (many logical trees)
 - Linux, all file systems are “mounted” onto one logical tree.
- “root” is the top of the Hierarchy
 - Represented by a “/” slash

LINUX FILE SYSTEM (CONT)



Part of file-system tree

LINUX FILE SYSTEM (CONT)

- Every thing is a “file”
 - Directory is file contains list of files!
 - This would include:
 - Who own the file?
 - How long is it?
 - Who can use it?
 - ...etc

LINUX FILE SYSTEM (CONT)

- *Absolute and Relative Names*
- **Path names:**
 - **Full (absolute)**
 - starts with the root. *“/”*
 - follows the branches of the file system, each separated by *“/”*
 - **Relative**
 - relative to your current working directory
 - more convenient (shorter), use with care!

LINUX FILE SYSTEM (CONT)

- Relative

- Special directory entries

- . the current directory

- .. the parent directory

- Examples

STARTING THE LINUX VIRTUAL MACHINE

- Demo!

LINUX COMMANDS

- Listing files and directories
- Making Directories
- Changing to a different directory
- Pathnames
- Pico: Text Editor program
- Displaying the contents of a file on the screen
- Copying Files
- Moving Files
- Removing Files and Directories

HOW TO EDIT, COMPILE, AND RUN JAVA PROGRAMS

- Demo!



**THANK YOU VERY MUCH FOR
YOUR CONCENTRATION!**

Waiting For You in Next Week's Lab!

-Azam.