

Systems and Services

14th May, 2025

Samuel Kanyesigye skanyesigye@renu.ac.ug

Isaac Newton Wobomba - iwobomba@renu.ac.ug



Outline

- Operating systems
- Moodle
- Websites & Web Hosting
- School Management Systems
- Domain Registration
- Web Conferencing
- Emails



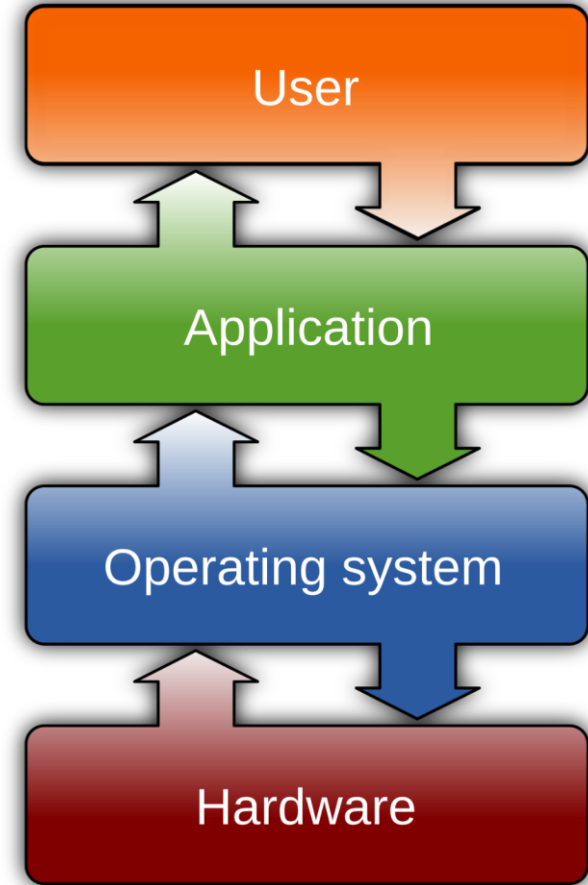
Operating Systems

Outline

- Introduction
- Components of OS
- Examples of OS
- Linux Vs Windows
- Who should use Linux?
- Linux Theory
- Linux Distro
- Why Linux
- Q & A

Introduction

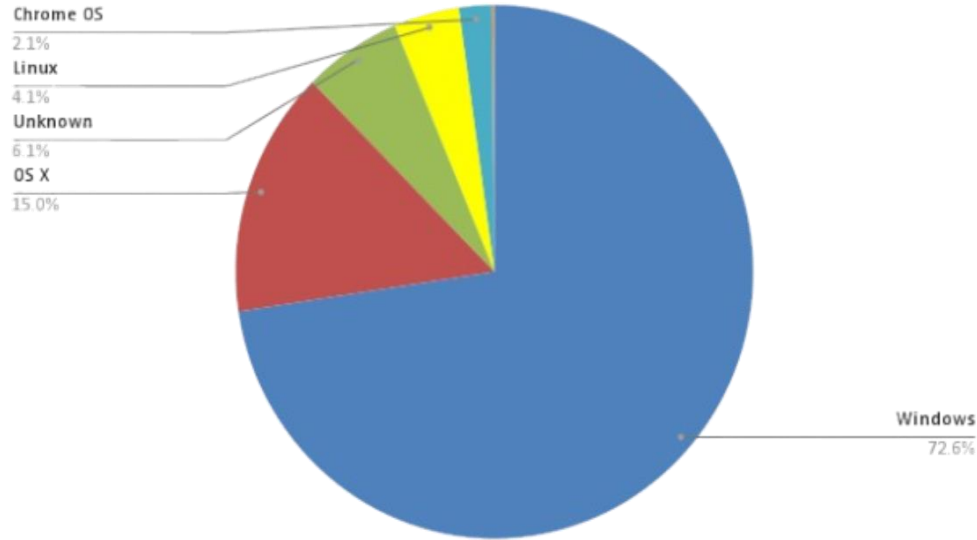
- A program that acts as an intermediary between a user of a computer and the computer hardware.
- An operating System is a collection of system programs that together control the operations of a computer system.



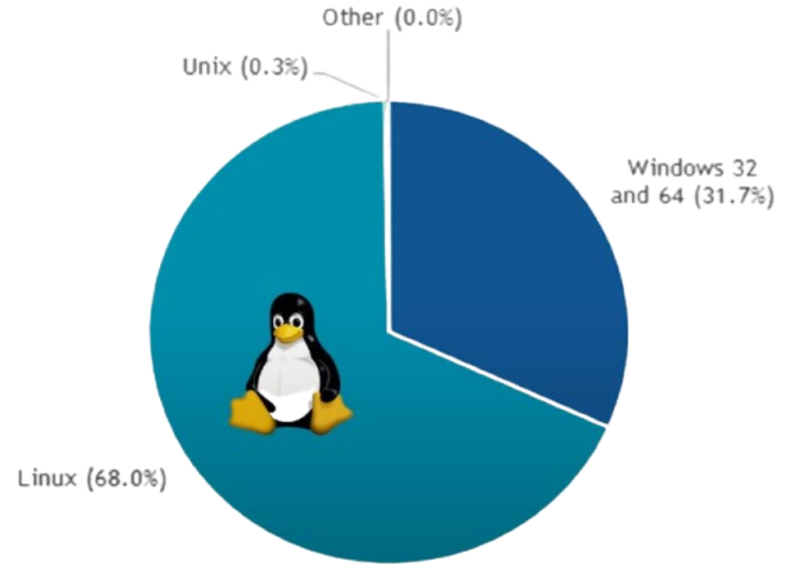
Examples of Operating Systems



Operating System usage



Desktop OS market share by March 2025



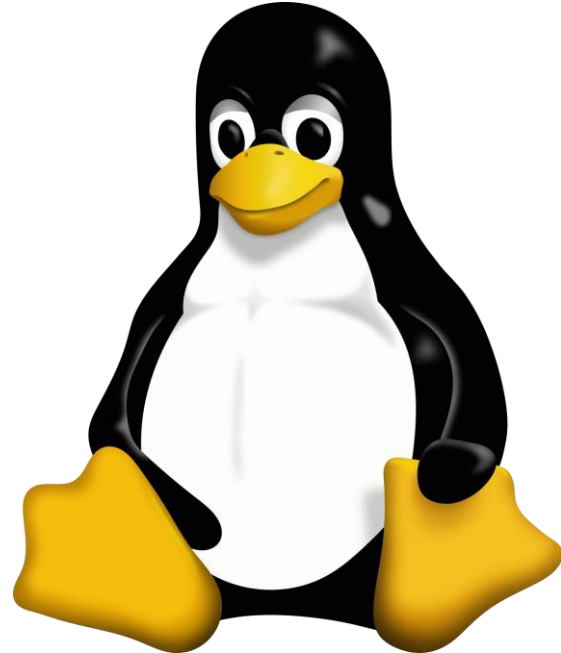
Server OS market share by March 2025

Linux Vs Windows

Linux	Windows
Open-source	Closed source
Free	Licensed
More secure	Less Secure
Steeper Learning curve	Shallow learning curve
Less application support	More application support
Graphical User Interface (GUI) is not good enough	Better GUI

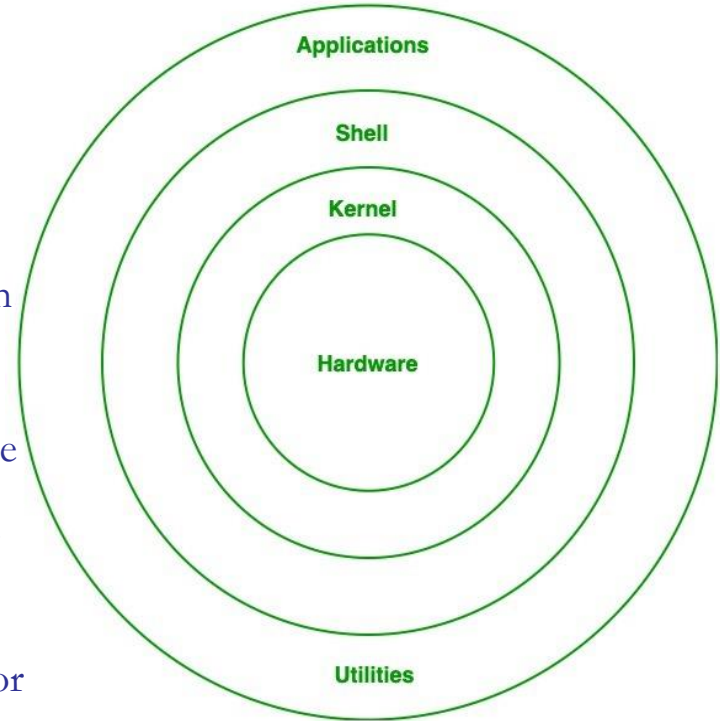
Who should use Linux?

- Users seeking a reliable and stable OS
- Developers and System Administrators
- Researchers & educators
- Tech enthusiasts
- Tight Budget
- People with Older or Low-Spec Hardware



Components of Linux Systems

- **Hardware:** These are the peripheral devices such as RAM/HDD/CPU.
- **Kernel:** It's the core of the Linux operating system. It's responsible for all major activities of the operating system and interacts with the hardware.
- **Shell:** It takes commands from the users and executes the kernel's functions. It's an interface between the users and the kernel.
- **System utilities:** Programs that perform specific tasks for the end users.



Linux Distro

- A Linux distro is an operating system compiled from components developed by various open-source projects.
- Each distro can contain a Linux kernel, package manager, shell utilities, an installer, and other services.
- There are more than 1000 Linux distros, but these are often categorized as either Debian-based or Red Hat.

Linux Distros - continued

- Common Debian-based distros
 - Linux Mint
 - Ubuntu
 - Kali Linux
 - Parrot OS
 - MX Linux
 - Deepin
- Common Red Hat distros
 - CentOS
 - Fedora
 - Oracle Linux
 - ClearOS
 - EuroLinux
 - EulerOS





Websites & Web Hosting

Outline

- Introduction
- Why a Website?
- RENU Web Development Service
- Web Hosting
- RENU Web Hosting Service
- Q & A

Introduction



- A website is a set of connected pages on the internet.
- You access websites through browsers like Chrome or Firefox.



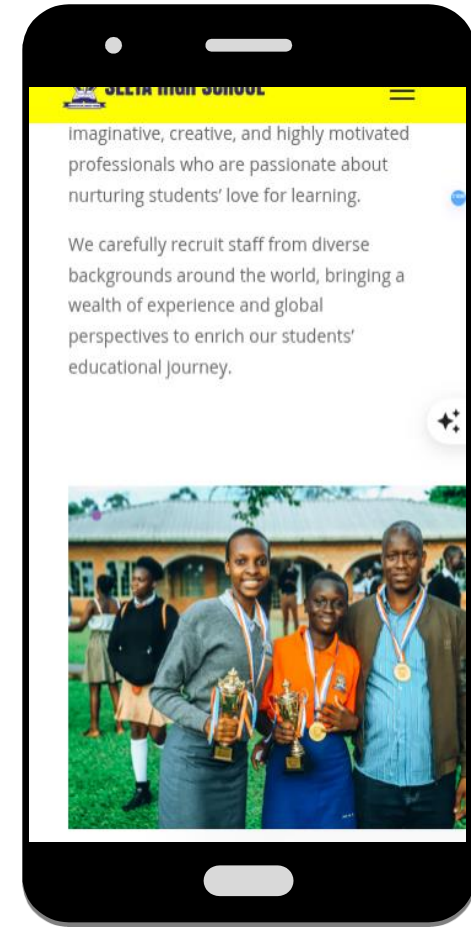
Why a Website?

- Sharing learning materials
- Reaching more students
- Creating a professional online presence
- Promoting school or class projects
- Facilitate online applications



RENU web development service

- Modern, responsive, & user-friendly websites
- Search Engine Optimization (SEO)
- Institutional Branding & Colors
- Tailored features such as News articles, events, Course catalogs
- Domain Name registration
- Reliable & Secure hosting



Web Hosting Service

- Web hosting is a service that allows your website to be accessible on the internet by providing server space and resources.



RENU Web Hosting service



- Secure & Private
- Regular backups
- Security patches
- High Performance (Latency)
- Flexible packages ranging from basic, standard, ultimate, etc.







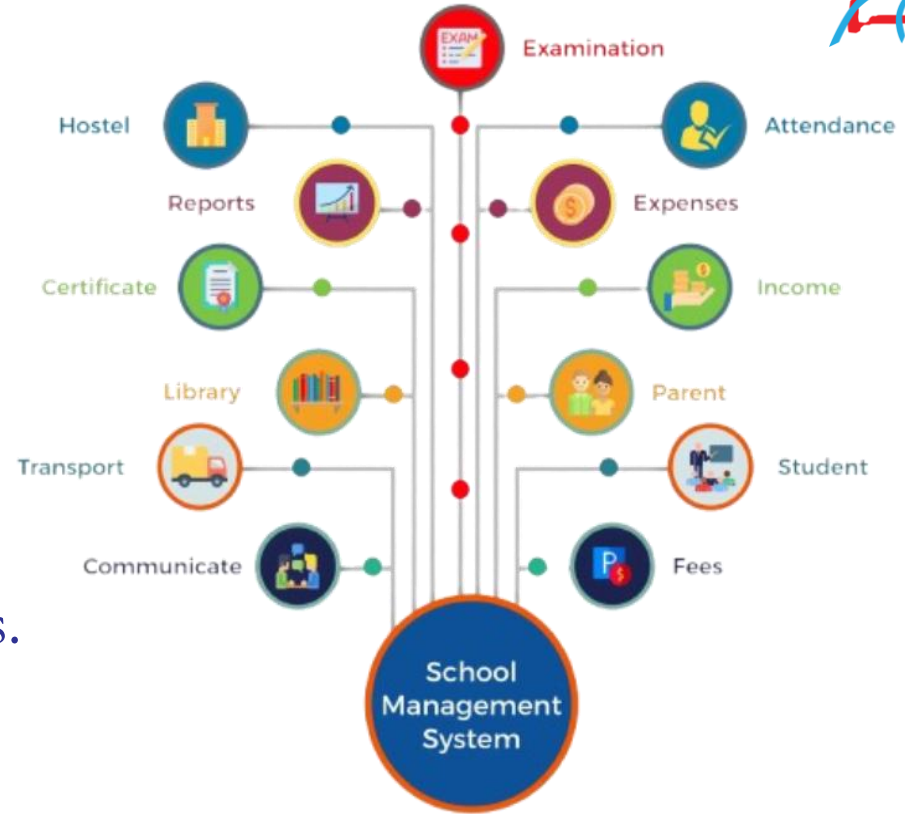
School Management Systems

Outline

- Introduction
- Why a School Management System?
- RENU 360 Service
- Q & A

Introduction

- An application designed to streamline and automate administrative, academic, and communication processes within educational institutions.



Why a School Management System?

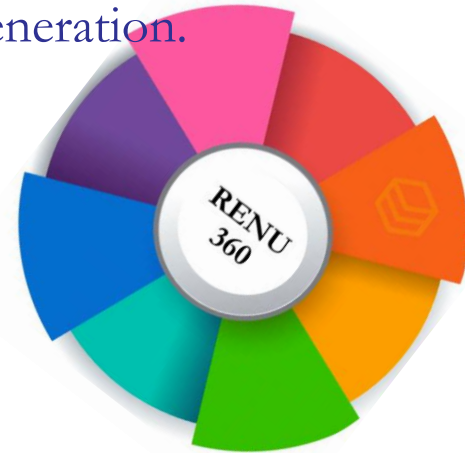
- Student/Pupil enrollment and records
- Teacher and staff management
- Attendance tracking
- Grade and examination management
- Fees collection and accounting
- Timetable scheduling

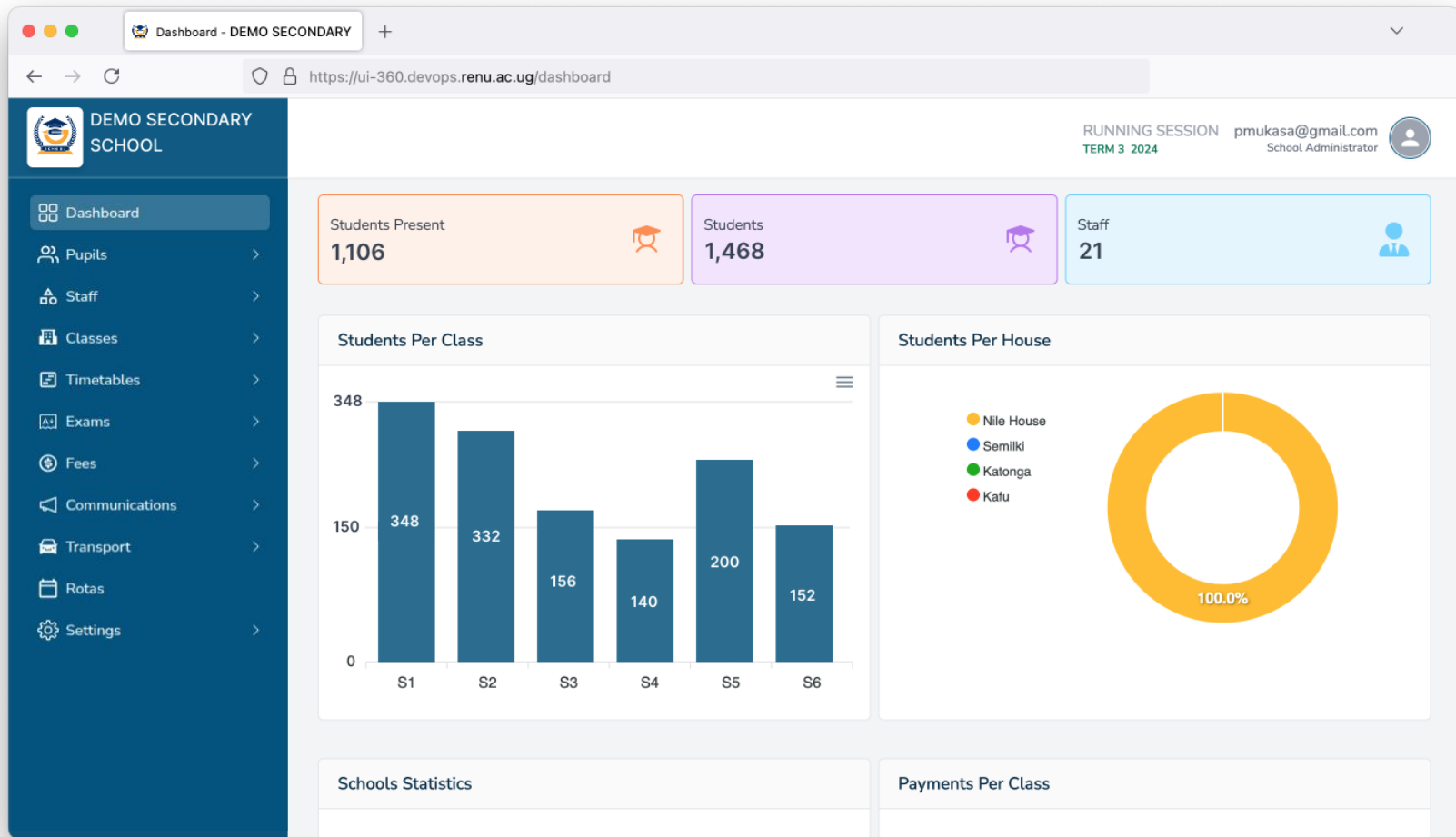


RENU 360 service

Modern & user-friendly School Management System helps in:

- Attendance tracking.
- Bulk SMS for communication to the parents.
- Student/Pupil marks management and report generation.
- Timetable Scheduling.
- Library management.
- Fees management.
- e.t.c







KITEEZI-KABAGA
Tel: 256776410059
Email: Serinaprimaryschool1@gmail.com
"KNOWLEDGE IS POWER"



END OF TERM REPORT

Name: **AHWEERA CAMPREEN KAMUSIIME**

Class: **PRIMARY ONE**

Term: **TERM 1**

Year: **2025**

PERFORMANCE RECORDS

SUBJECT	END OF TERM	GRADE	REMARK	TEACHER
ENGLISH	93	D2	V.GOOD	A.N
LITERACY ONE	98	D1	EXCELLENT	A.N
LITERACY TWO	92	D2	V.GOOD	H.N
MATHEMATICS	100	D1	EXCELLENT	L.O

TOTAL MARKS: 383

AVG: 95.75

AGG: 6

DIV: First grade

ASSESSMENT RECORDS

SUBJECT	ENGLISH	LITERACY ONE	MATHEMATICS	LITERACY TWO	TOTAL	AVG	AGG	DIV
MID TERM EXAM	94	96	98	98	386	96.5	5	First grade

GRADING SCALE

0-39	40-44	45-49	50-59	60-65	66-74	75-84	85-94	95-100
F9	P8	P7	C6	C5	C4	C3	D2	D1

Class Teacher's Comment:

KEEP IT UP

Signature:

ANGEL NAKAKE

Head Teacher's Comment:

EXCELLENT RESULTS,

Signature:

NANYONJO PHIONA



NEXT TERM BEGINS ON: 26th May 2025





Domain Registration

Outline

- What is a domain name
- Why do you need a domain name?
- RENU Domain Registration
- Q & A

What is a domain name?

- Address you type in a web browser to visit a website.
- Represents an IP address

https://www.domainname.com

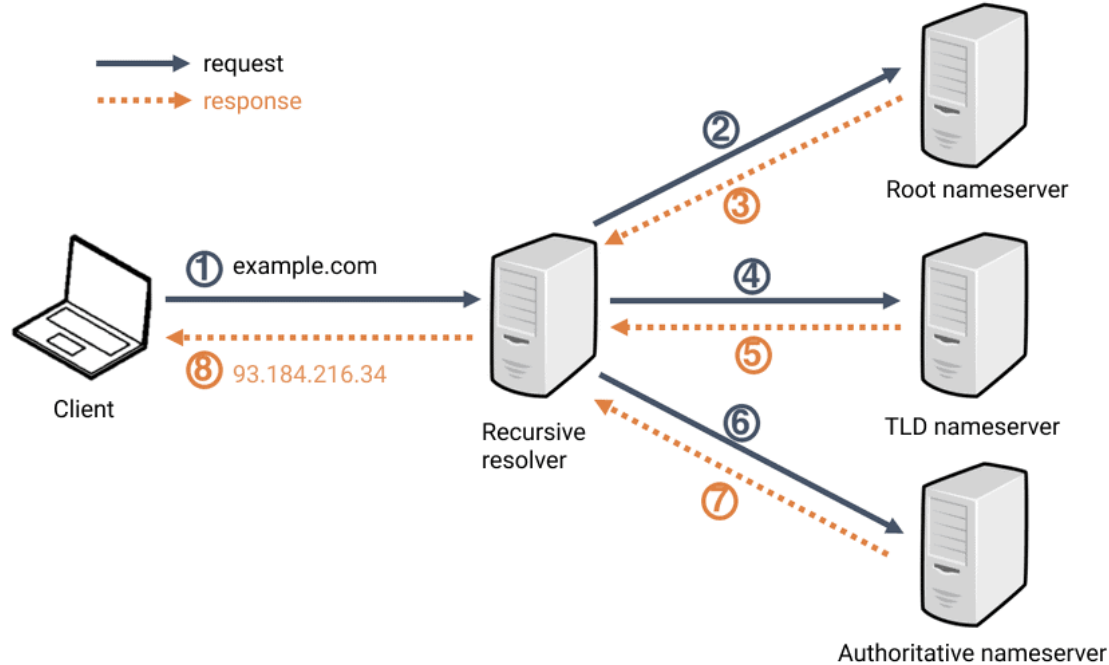


Top level domains

i3C
ug



How DNS Resolution Works?



Why do you need a domain name?

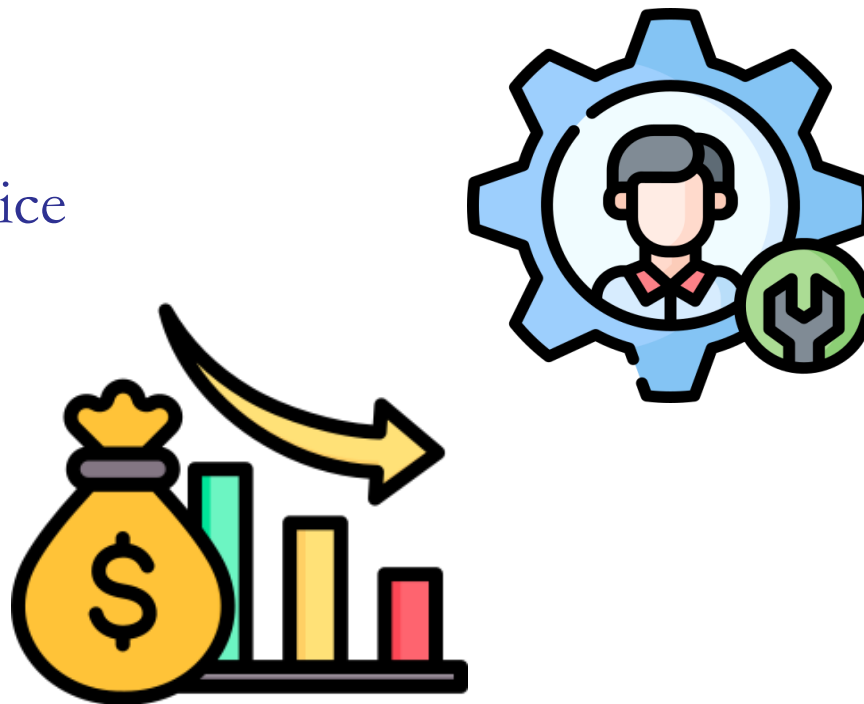
- Easy to remember
- You can have professional emails
 - **your-name@your-school.ac.ug**
- Identity and Branding
- Website Security and protection (SSLs)



RENU Domain Registration Service



- Affordable Service
- Ready support







Moodle LMS

Outline

- Introduction
- Why Moodle LMS?
- RENU Moodle service
- Q & A

Introduction

- Moodle is a free, open-source Learning Management System (LMS) that allows educators to create and manage online courses, offering a flexible and customizable platform for various learning environments.



Why Moodle LMS?

- Open-Source and Free
- Modular and Customizable
- Flexible Learning Environments
- Course Management
- User Roles and Permissions
- Communication and Collaboration
- Assessment and Grading
- Mobile App

RENU Moodle service



- Free installation
- Cloud Hosting (Priced based on the specs)
- Basic customization







Web Conferencing

Outline

- Introduction
- Why Web Conferencing
- Zoom
- Big Blue Button (BBB)
- Web Conferencing at RENU
- Q & A

Web Conferencing in Education

- Real-time video/audio communication over the internet
- Includes features like screen sharing, chat, polls, breakout rooms



Google Meet



Zoom



- A video conferencing platform
- Used for virtual classes, meetings, trainings and conferences
- Works on desktop, mobile, and browser



Big blue button

- Open-source web conferencing tool focused on education
- Works in web browsers—no need to install anything
- Often integrated with learning platforms like Moodle



Web Conferencing at RENU

- RENU offers
 - Zoom paid licences
 - Big Blue Button (BBB) setup
- BBB is set up in the RENU cloud.
- Service uptime is guaranteed as per the SLA
- Ready support
- Uncapped bandwidth





Emails

Outline

- What are Emails
- How Emails work
- Why Use emails for communication?
- Email Etiquette Tips
- RENU Email Hosting Service
- RENU emails Vs Gmail
- Q & A

What are Emails

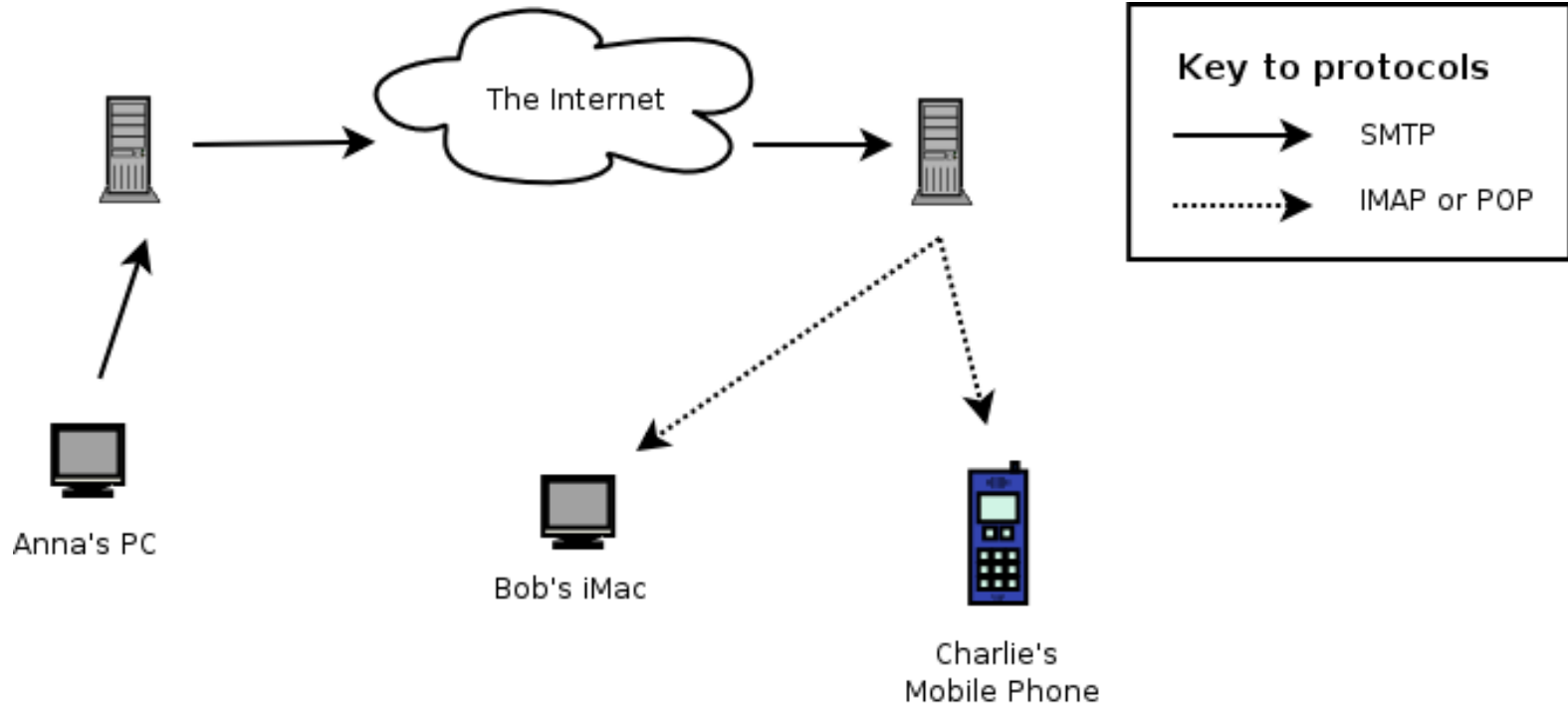
- Electronic mail/digital messaging system
- Used for (official) communication, file sharing, notifications
- Quick and asynchronous (no need to be online at the same time)





**How does the Post
Office work?**

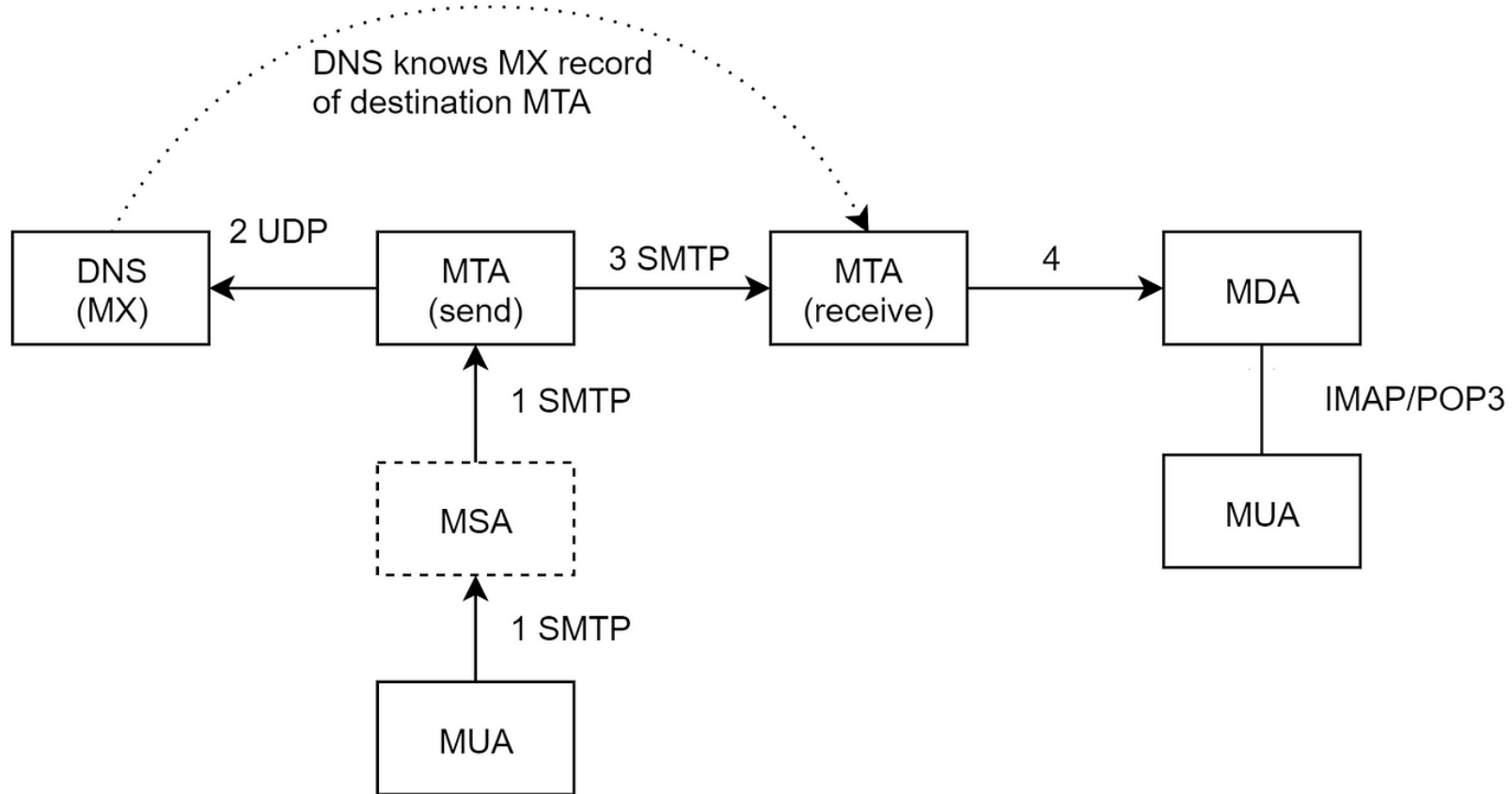
How Emails work



How Emails work - Terminologies

- **MUA (Mail User Agent):** The app or service a person uses to send and receive emails, e.g., Gmail, Apple Mail, Outlook.
- **MTA (Mail Transfer Agent):** The server that takes your email and figures out where to send it.
- **MDA (Mail Delivery Agent):** The service that receives the email from the MTA and puts it into the recipient's inbox.
- **SMTP (Simple Mail Transfer Protocol):** The protocol used to send emails between servers.
- **DNS:** Domain Name System, is the "phone book" of the internet. It translates the human-readable domain names (like `www.your-school.ac.ug`) into numerical IP addresses (like `192.168.1.1`) that computers use to communicate.

How Emails work - Terminologies



Why Use emails for communication?

- Communication with parents, students, staff
- Sending updates, homework, meeting links
- Record keeping (written trail)



Email Etiquette Tips

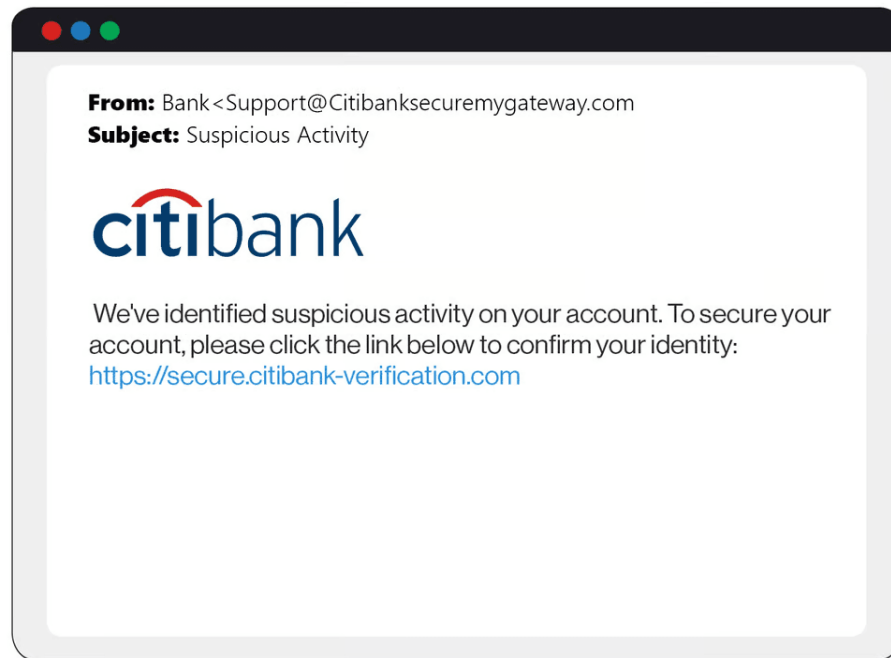
- Use clear subject lines
- Be polite and professional
- Avoid slang/emojis in formal emails
- Sign off properly



Security Tips



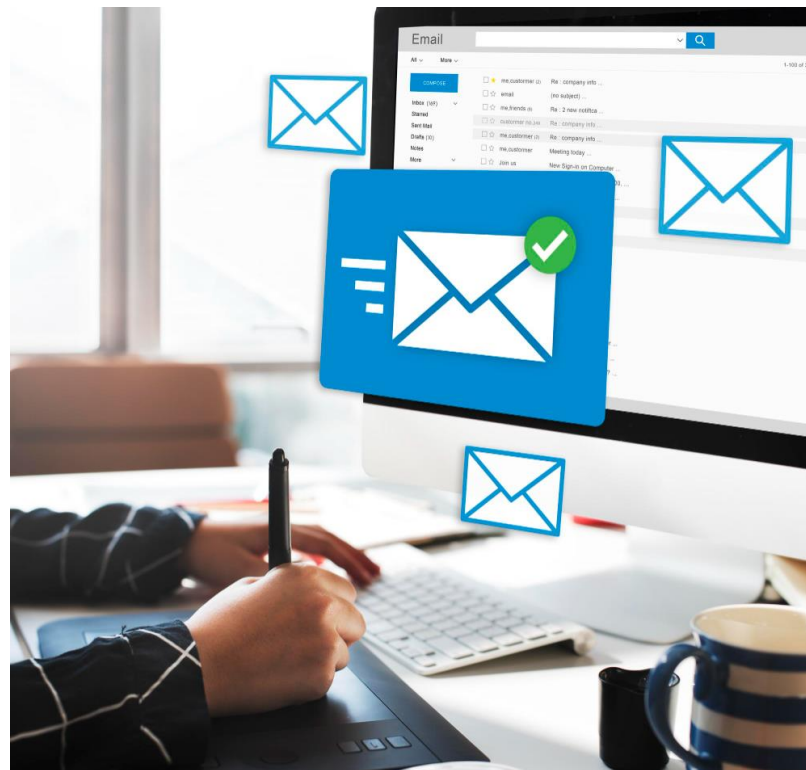
- Don't click unknown links or attachments
- Watch out for phishing (fake emails pretending to be real)
- Use strong passwords and 2-Factor Authentication (2FA).



RENU Email hosting Service



- Cost effective service
- Ready support
- Secure in the RENU cloud

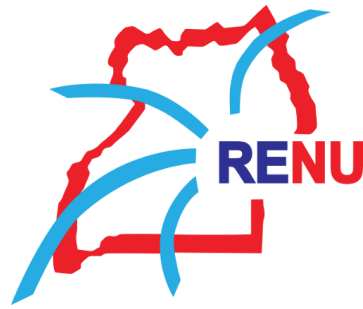


RENU emails Vs Gmail



RENU emails	Gmail
Professional emails (your-name@your-school.ac.ug)	Not professional. (your-name@gmail.com)
Ready Support	No support
Larger, scalable email storage	Limited depending on Google's policy
Full admin dashboard for managing users & access	No admin control over multiple accounts
Includes collaborative tools (Calendar, Events, etc.)	Personal tools; not optimized for org-wide use
Easily create and manage email groups like staff@, department@, etc.	Email groups are not supported on personal Gmail.





THE END

Discussion