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What is Operating System ?  
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- > Operating System is a software which is used to interact with computer
- > Operating System is acting as mediator between users and computer hardware components
- > Operating System is mandatory to use any computer
- > OS provides environment to run other applications  
(browser, notepad, paint, calc)
- > The OS came into market in 1950
- > Microsoft released it's first OS in 1981 (MS DOS)

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Windows OS  
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- > Developed by Microsoft Company
- > It is having GUI (Graphical user interface)
- > It is single user based Operating System (only one person can use this at a time)
- > It is commercial (paid)
- > Less Security
- > It is recommended for personal use
  - Watch Movies
  - Using Internet
  - Playing Games
  - Attending Online classes
  - Store data

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Linux OS  
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- > Linux is Community Based OS
- > Linux is Free & Open Source OS
- > Linux is Multi User Based OS
- > High Security
- > Recommended to use for Applications, Servers, Databases etc..

Note: In realtime, we will use Linux OS only to setup infrastructure required to run our application

- > Linux OS is not only for Administrators, even developers and testers also will use Linux OS in realtime to monitor our application and application servers and application logs.

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## History Of Linux

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-> In 1991, a student 'Linus Torvalds' developed this Linux OS

-> Linux Torvalds identified some challenges in UNIX OS and he suggested some changes for Unix OS but UNIX OS Team rejected 'Linux Torvalds' suggestions

-> Linus Torvalds used Minux OS to develop Linux

Linus + Minux

-> First Two letters from his name and last 3 letters from Minux OS

LI + NUX => LINUX

-> Linus Torvalds released LINUX OS with source code into market so that anybody can modify LINUX OS that's why it is called as Open Source Operating System.

-> As Linux OS is open source, so many people and companies taken that Linux OS and modified according to their requirements and released into market with different names those are called as Linux Distributions.

RHEL -- RED HAT

Ubuntu OS

Cent OS

Fedora

Open SUSE

Kali Linux

Debian

Amazon Linux

Note : 200+ Linux Distributions are available in the market.

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## Environment Setup

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1) Create account in AWS (it will ask debit/credit card) - selected cards are accepted

2) Create Linux VM using AWS EC2 service (download key pair)

3) Download MobaXterm software to connect with Linux VM

4) Connect with Linux VM using Public IP and pem file

Note: Once work is completed then stop your Linux VM in EC2 to avoid billing