



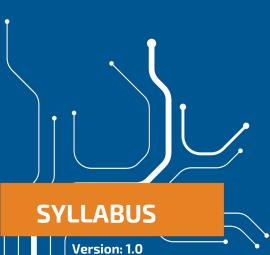






CLOUD COMPUTING

"MASTER THE FUTURE OF TECHNOLOGY WITH INDUSTRY LEADING CLOUD SKILLS"





About Apponix Academy

- → Apponix Academy is a leading training institute offering both online and offline courses in trending technologies like Cloud Computing, DevOps, Cyber Security, Full Stack Development, Data Science, Digital Marketing, and more.
- + Established in 2013, Apponix has trained over 50,000 students across India and abroad, helping them build successful careers in the tech industry.
- → With centers in Bangalore, Pune, Mumbai, Hubli, Aurangabad, Tumkur, Trichy, Gwalior, Ranchi, and more, Apponix continues to expand rapidly across the country.
- + All our courses are designed to be job-oriented, practical, and aligned with real-world industry requirements.
- → Our training is delivered by 100+ highly experienced corporate trainers who are experts in their respective fields.
- → We offer flexible learning options, allowing students to choose between classroom sessions and live online classes.
- → Apponix is ISO certified and provides globally recognized certifications from AWS, Microsoft, and Google.
- → Over 3,000+ Apponix alumni are successfully placed in top MNCs with salaries above ₹15 LPA.
- → Our focus is on 100% hands-on learning, project-based assignments, and real-time case studies.
- → We provide complete career support including resume building, interview preparation, and placement assistance.
- → With a strong presence and proven track record, Apponix Academy continues to be a trusted name in professional IT training.



COURSE KEY FEATUERS















IABAC Authorized Partner











VMWARE Authorized Partner

Most Promising Training Institute

MSME Certified

Sample Certificate





Linux Syllabus RH124 - Red Hat System Administration - I

1. Getting Started with Red Hat Enterprise Linux

Introduction and History of UNIX & Linux

- Overview of UNIX and Linux history and development.
- Key differences between UNIX and Linux operating systems. Comparing CentOS, Red Hat Enterprise Linux, and Fedora
- Overview of each distribution and its intended use cases.
- Major differences in support, stability, and target audience. Difference between UNIX and Linux
- Fundamental technical and philosophical differences between UNIX and Linux.

Defining Open Source, Linux Distributions, and Red Hat Enterprise Linux

- Explanation of open-source software and community-driven development.
- Overview of different Linux distributions and their purposes. Specific
- Features and strengths of Red Hat Enterprise Linux (RHEL).

2. Downloading, Installing, and Understanding the Booting Process of Red Hat Linux

Downloading and Installing VirtualBox

- Step-by-step guide to downloading VirtualBox for virtualization.
- Installation steps for VirtualBox on various platforms.

Downloading and Installing Red Hat Linux

- Instructions on downloading RHEL from Red Hat's official website.
- Installing RHEL on a virtual machine via VirtualBox.

POST (Power-On Self Test): Initial hardware checks and diagnostics.

- BIOS/UEFI (Basic Input/Output System / Unified Extensible Firmware Interface): Roles and differences.
- MBR (Master Boot Record): Legacy partitioning and booting process.
- GRUB/GRUB2 (Grand Unified Bootloader): Importance in multi-boot environments.
- Systemd/Initd: Role in managing services and system initialization.



Runlevels (Targets): Different targets for various system states.

Linux Architecture, Kernel, and Shells

- Linux Architecture Overview: Layers of the Linux system.
- Kernel: Core of the OS, handling hardware interaction.
- Interpreter and Shells: Bash, Zsh, and other popular shells.
- Memory Management: Virtual memory, caching, and processes.

3. Linux FHS (Filesystem Hierarchy Standard)

Understanding and Deep Dive into FHS

- Overview of Linux directory structure and purpose of each directory (e.g., /bin, /home, /etc).
- Importance of the FHS for organizing system files and ensuring compatibility.

4. Accessing the Command Line

Logging into a Linux System

- Steps for logging into Linux through the console or SSH.
- Running basic commands using the terminal.

Understanding Terminals (TTYs) and Shells

- What is TTY and how it differs from GUI terminals.
- Overview of different types of shells (Bash, Zsh, Fish).
- Basic commands and navigating through the shell environment.
- Creating, copying, moving, deleting, and organizing files.
- Overview of recursive and forced operations on directories and files.

File Content Commands

- Using commands to view and manipulate file contents:
- head, tail, cat, more, less for displaying contents.
- sort, uniq for organizing and filtering data within files.

Input-Output Redirection

• Understanding >, >>, and < for directing output and input.



5. Manage files from the command line

- Course Brochure Course Brochure Copy, move, create, delete, and organize files while working from the bash Shell
- understanding the commands to create, move, create, delete, sorting with
- commands by recursively and forcefully head, more, less, tail, cat commands Use input-output redirection

6. Get Help in Red Hat Enterprise Linux

- Resolve problems by using local help systems Overview of available local help resources and guides.
- Using 'help' and 'man' Commands.
- Detailed use of the 'help' command for built-in shell commands.
- Using the 'man' command to access manual pages for various Linux commands.
- Technical Support for Enterprise Linux
- How to access and utilize support from Linux enterprise solutions.

7. Create, View, and Edit Text Files

- Managing Text Files
- Creating, viewing, and editing text files directly from command output or using text editors.
- Using Text Editors: vi, vim, gedit, nano
- Introduction to editors and their editing modes.
- Basics of 'vi', 'vim', 'gedit', and 'nano' editors understanding the Inode structure
- Explanation of inodes, file metadata, and file storage.

8. Symbolic Links or Backup Methods

- Understanding Hard Links and Soft Links
- Differences between hard links and symbolic (soft) links.
- Commands to create and manage links.

9. Manage Local Users and Groups

- User and Group Management
- Creating, managing, and deleting local users and groups.
- Understanding Commands: useradd, userdel, usermod, groupadd, groupdel, groupmod, passwd, gshadow
- Command syntax and implementation of local password policies.
- Switching users and accessing different shell environments.



10. Control Access to Files

- Setting File System Permissions
- Understanding Linux permissions for files and folders.
- Using 'chmod', 'chown', 'setfacl', and 'getfacl', to manage permissions.
- Applying Special Permissions
- Explanation and use of sticky bits for directories.

11. Monitor and Manage Linux Processes

- Process Management
- Evaluating and controlling processes on a Red Hat system.
- Key Commands: top, ps, lscpu
- Monitoring system processes and analyzing CPU information.

12. Control Services and Daemons

- Using systemd for Service Management
- Controlling and monitoring network services and system daemons.
- Key Commands: systemctl, service
- Understanding different service modes (status, start, stop, restart, enable)

13. Configure and Secure SSH

- Setting Up Secure Remote Access with SSH
- Configuring OpenSSH for secure remote access.
- SSH Authentication Modes
- Setting up SSH authentication using asymmetric keys (public/private key pairs) for password-less login.
- Enabling and managing password authentication.

14. File and Folder Transfer and Downloading

- Transferring Files Across Systems
- Methods for transferring files between Linux-Linux, Linux-Windows, and Linux-Mac systems.
- Understanding SFTP, SCP, and Rsync Commands
- Secure file transfer and remote copy techniques.
- Using WinSCP and FileZilla
- GUI tools for file transfer between systems.
- Downloading with wget and curl
- Command-line utilities for downloading files from the internet.



15. Analyze and Store Logs

- System and User Logs for Troubleshooting
- Locating and interpreting logs to troubleshoot system issues.
- Types of Logs
- Overview of system logs, user logs, and their locations.

16. Manage Networking

- Network Configuration on RHEL Servers
- · Configuring network interfaces and IP settings.
- Networking Commands: iptables, netstat, telnet, ss, ifconfig, nslookup, dig
- Overview of networking commands for configuration and troubleshooting.

17. Archive and Transfer Files

- Archiving and Copying Files
- Techniques for archiving and transferring files between systems.
- Archiving Commands: zip, gunzip, bzip2, tar
- Command syntax and usage for compressing and archiving files.

18. Searching the Contents in Linux

- Content Search Utilities
- Using grep, locate, and find commands to search file contents and locations

19. Install and Update Software Packages

- Package Management in RHEL
- Installing, updating, and managing software with package repositories.

20. Access Linux File Systems

- Accessing and Managing File Systems
- Inspecting and working with mounted file systems.
- **Commands:** fstab, mtab, blki Using system files and commands to manage file system mounting and identification.

21. Analyze Servers and Get Support

- Investigating Issues and Getting Support
- Troubleshooting using the web-based management interface.
- Accessing Red Hat support for server-related issues.



22. Comprehensive Review

- Hands-on Exercises
- Review and apply course concepts through practical exercises.

RH134 - Red Hat System Administration-II

1: Schedule Future Tasks

• Understanding cron jobs, crons, anacron, and crontab.

2: Tune System Performance

 Understanding system memory, IOstat, and Network. Overview of /proc, top, and ps commands. Understanding virtual memory, system activity reporting, and iostat.

3: Manage SELinux Security

 Importance of SELinux in Linux. Implementing SELinux modes: targeted, permissive, enabled, disabled, and enforcing.

4: Maintain and Manage Basic Storage

- Understanding file systems and file system types: ext2, ext3, ext4, xfs, btrfs, etc.
- Hard disk storage partitioning and formatting.
- Working with LVM (Logical Volume Management): creating, resizing, and extending LVM.

5: Network-Attached Storage or File Server Course Brochure

Configuring NFS (Network File System): creating, accessing, and deleting NFS shares.

6: Control the Boot Process

• Understanding run levels to control the boot process.

7: Manage Network Security

- Configuring IP tables.
- Working with Ethernet cards



AWS Syllabus

Course Content for AWS Cloud Training Amazon Web Services-Essentials

Course Objectives:

- Recognize terminology and concepts as they relate to the AWS platform
- Navigate the AWS Management Console Understand the security measures AWS provides
- Differentiate AWS Storage options and create an Amazon Simple Storage Service(S3)bucket
- Recognize AWS Compute and Networking options and use Amazon Elastic Compute Cloud(EC2)and Amazon Elastic Block Storage(EBS)
- Identify Deployment and Management options v Load balance and Auto-Scale with EC2
- Use EC2APIs
- DebugAWS EC2instance

1: Introduction to AWS

- Navigate the AWSManagement Console
- Recognise AWS Global Infrastructure
- Describe the security measures AWS provides
- Create an Amazon EC2instance
- Remotely connecting to an EC2instance
- Setting up Amazon Linux and Apachewebserver
- Browsing Amazon Machine Images(AMI)
- Specifying security groups and keypairs
- Creating new images off of running instances.

2: AWS Storage

- Identify key AWS storage options
- Describe Amazon EBS
- Use Amazon EBS with AmazonEC2
- Working with Volumes and snapshots
- Transmitting data in/out of the Amazon cloud





3: Installing Software in your Amazon Instance

- Implementing aWeb serverinan AmazonLinux/Windows Instance
- Configure the firewall to access a Web server

4: Security in Public Cloud

- · Security issues in Public Cloud
- Securing the Access: Creating a RSA Public/Private Keyfor VMs
- Creating a software firewall
- Configuring firewall rules
- Securing the access with an Elastic IPs
- Managing users with Identity Access Management(IAM)

5: Alternate access

UsingEC2CommandLine APIs [from Windows/Linuxmachines]

6: Load-balancing with EC2 and Auto Scaling

- Creatingand using Load Balancers
- Distributing incoming traffic with elastic load balancing
- Dynamically adding and removing instances with AutoScaling

7: Cloud Watch to be seen along with Auto Scaling

- Overviewof Monitoring and Setting Alarms
- Visualising utilization metrics with CloudWatch
- Setting alarms to send and receive notifications

8: Simple Notification Services (to be seen along with AutoScaling

Using SNS to send Notifications



9: Amazon S3 Basics

- · Creating Buckets
- Creating Folders
- Uploading Objects
- Making Objects Public
- Creating Buckets
- Securing Bucket/Object access
- Configuring a Bucket as Static Web Page
- Controlling Life Cycle of a Bucket
- Accessing Amazon Buckets from Windows/ Linuxdesktops/Servers

10: Virtual Private Cloud Course Brochure

- Create a VPC[VPC withaSinglePublicSubnet]
- Create and attach an Internet gateway
- Create an Amazon VPCsubnet
- Set up routing in the VPC
- Set up a security group to control the inbound and out bound traffic
- Launch an instance into the subnet · VPC console to allocate an Elastic IP address and assign it to theinstance
- Amazon EC2 console to terminate your instance and the Amazon VPC console to delete your VPC

11: AWS-RDS

- Overview of AWS RDS
- Launching a My SQL Database in RDS
- Creating Backups/Snapshots and Read Only DBs
- Connecting to RDS-DB using local DB-Clients
- Terminating a DB instance



12: AWS-IAM

- · Creating Groups and Defining access policy
- Creating Users · Login to AWS account using new users

13: Installing Software in your Amazon Instance

- Implementing aWeb serverinan AmazonLinux/Windows Instance
- Configure the firewall to access a Web server

14: AWS-Cloud Formation

- IntroductiontoCloud Formation
- Launching instances in EC2 using Templates

15: AWS-Cloud Front

- ConceptsofAWS-Cloud Front
- Host a Website with Cloud Front

16: AWS-Route53 Course Brochure

- Creating a Failover setup for LoadBalancers running in different AWS regions [users need to have a registered Domain]
- Health Check a private website

17 : AWS-Cloud Trial

UsingCloudTrialtotrail the API Calls

18: Hosting Applications with Elastic Beanstalk

- Improving application delivery with Platform as a Service(PaaS)
- Deploying scalable applications on the AWS cloud
- Selecting and launching an application environment (sample application in PHP andMy SQL)



19: Dynamo DB

- · Overview of AWS Dynamo DB
- Dynamo DB Tables and Naming Conventions
- Data Types in Dynamo DB
- Dynamo DB Capacity Units
- Configuring Alarms
- · Tacking Backup and Restore

20: Lambda Function · Overview of AWS Lambda

- Creating aLambda Function with Node.js
- Lambda Pricing & Uploading Code
- Connecting Lambda Functions to API Gateway Endpoints
- Accessing Lambda Logs

21: API Gateway

- Overview of API Gateway
- Create a RESTAPI
- Create Resource
- Create HTTP Methods
- Deploy API
- Integrating with Lambda function

22: Simple Queue Service

- Overview of SOS
- Create Standard queue
- Create FIFO queue
- With Timer or Delay to a Standard queue Course Brochure



23: End user Computing, Organization setup and Resource Sharingwith(SSO)

- Directoryservices (Launching AWSmanaged AD)
- SSO integration with AD users
- Work Email · Work docks · Workspaces · AWS management SSO login

24: AWS System Manager

- Runcommand
- Content De-duplication
- Delete the queue

25: Compute Course Brochure

- 2 and 3 tier web architecture running in EC2 (windows and Linux)
- Multiple Child application Running in EC2 (windows and Linux)
- Light sail implementation
- ECS and ECR launching Docker images
- Understanding of launching On Demand Instances, Reserved, spot, Dedicated Hostsand Dedicated Instance

26: AWS-Automation with Python Boto3module

- Complete In Depth understanding and implantation AWS-Automation by usingBoto3 Module
- Launching EC2 and Entire VPC creation by using Python code.
- Creation S3 Buckets by writing python boto3module
- Creating IAM users and Roles and Polices by using Python boto3module



27: Security, Identity and Compliance Management

- · Securing the web application by using the WAF
- AWS Inspector
- AWS security Manager (SSL/TLS Certificates)
- AWS Shield
- AWS Artifact
- AWS Key Management Service Compliance
- Patch Manager

28: AWS Cost Management

- AWS Cost Explorer
- AWS Budgets
- AWS Market place Subscriptions



DevOps Syllabus

1: Devops Lab Setup tools for Linux and windows Environment

- GitBash installation and Github account setup
- Tomcat installation and Configuration
- Jfrog Artifactory installation and Configuration
- Maven Installation and Configuration
- Jenkins installation and Configuration
- Ansible Installation and Configuration
- Sonarqube installation and Configuration
- Docker Installation and configuration
- Java installation and Configuration
- Environmental variable setup for both windows and Linux

2: Introduction to Devops and Dev secops

- Introduction to DevOps
- What is DevOps?
- · SDLC models, Lean, ITIL, Agile
- Why DevOps?
- · History of DevOps
- DevOps Stakeholders DevOps Goals
- Important terminology
- DevOps perspective
- DevOps and Agile DevOps Tools
- Configuration management
- Continuous Integration and Deployment



3: Introduction to SDLC, Software testing, Agile: Software testing lifecycle

- · Working with Blockbox testing
- · Working with Whitebox testing
- Working Greybox testing
- . Working with Function testing
- Working with Regressing testing, smoke testing, System testing, Integration testing etc.

4: Agile Methodologies:

- Process flow of Scrum Methodologies
- Project planning, scrum testing, sprint Planning and Release management
- Analysis
- Design, Execution and wrapping closure

5: LINUX Administration:

- Introduction to Linux Families(ex: Redhat & Debian Family)
- · Working with APT and YUM and Dnf
- · Working with AWK and SED commands

6: Installation and Initialization:

- Installation, Package Selection
- Anatomy of a Kick start File, Command line
- Introduction to BashShell
- System Initialization, Starting the BootProcess: GRUB.

7: Boot and Package Management:

- Securing single-user mode(sulogin)
- Shutting down and rebooting the system
- RPM Package Manager, Installing and Removing Software, Updating a Kernel RPM
- Yum Command set, Install packages by using yum
- Apt-get command set, Apt-cache package management.



8: User Administration:

- Understanding different types of groups and creation of groups
- Creation of users in different groups
- Understanding Passwd, Shadow Files
- Understanding passwd aging
- Creation of quotas for users, groups and file systems
- Understanding users security files
- · The different commands for Monitoring the users
- TROUBLESHOOTING
- Automation of jobs-Cron, at
- Working with command star, find, grep, etc.

9: Run levels:

- Understanding the different types of run-levels
- · Understanding different types of shutdown commands
- Understanding run control scripts
- Understanding the different types Version Control/SCM (Git) 1: Introduction to Git
- Overview of SVN, GIT, Clear case, perforce & Comparison
- · Introduction of Git
- Selecting Git Client
- Creating Repository
- · Working with Tag
- · Creating and Merging Branches
- Executing Git Commands
- Git Logs, Git stash, Git rebase
- Merge conflict issues resolving
- Git pull, clone, fetch



Anisible Modules

1: Introduction to Ansible

- What is Ansible
- Change Management
- Provisioning with Ansible
- . Benefits of using Ansible

2: Ansible Building blocks and Processflow

- Introduction to Ansible Anatomy
- Ansible Requirements Specification
- Overview of Ansible Components
- Overview of Ansible Strategy

3: Ansible Playbook Modules and directory structure

- Introduction to Ansible Playbook
- Introduction to Ansible Modules
- Lab(Docs, setup, service, yum...etc)

4: Variable, Facts and jinja 2 templates

- Working with Ansible Variable
- Working with Facts
- · Working with Jinja2 Template

5: Play and Playbooks

- Overview of Ansible Playbooks
- Playbook Language Example
- Working on Ansible Handlers
- Executing a Playbook.



Docker Modules

1: Getting Started with Docker

- Introduction to Docker
- What's under the hood
- Namespaces, C groups and Overlay FS
- Understanding Virtualization
- Virtualization vs Container

2: Docker Installation

- Creating a Virtual Docker Host(CentOS) by using Vagrant Installing
- Docker on CentOS
- Introduction to Docker namespaces

3: Docker Images

- Introduction to Docker Images
- Building a Docker Image with a Docker file
- Sharing Data in Your Docker Host with Containers Sharing Data Between Containers
- Copying Data to and from Containers Creatoing Docker Hub Account.
- Building Images using Docker File.
- Pull and Push Images From/To Docker Hub.

4: Docker Networking

- Introduction to Docker Networking
- Finding the IP Address of a Container
- Setting Up a Custom Bridge Network for Docker



5: Container Operations

- Port Mapping for Docker
- Creating, Starting, Stopping, Renaming, Removing Containers
- Inspecting Containers
- . Limiting R resources Memory and CPU
- Prioritizing CPU Utilization

6: Docker Compose

- Introduction to Docker compose
- Creating Docker compose file
- · Executing Docker Compose file

Jenkins Modules

1: Introduction to Continuous Integration and Jenkins-CI/CD

- What is Continuous Integration
- Jenkins Continuous Integration
- What is Continuous Deployment
- Jenkins Vs Jenkins Enterprise

2: Jenkins Installation

- Downloading and Installing Jenkins using Tom Cat
- Creating Jenkins as a Service.
- Starting and Stopping Jenkins



3: Configure Jenkins and User Management.

- Secure Jenkins
- Create a new user
- · Generates sh key for Jenkins user
- Plug-in-Movement

4: Jenkins jobs setup Course Brochure

- Setting up a Jenkins job(Freestyle, Pipeline, maven, MS Build, Py build)
- Jenkins parameterized jobs setup(choice params, boolean params etc)
- Email notification jobs
- Parallel jobs configuration
- nodes(slaves) configuration

5: Jenkins Integration

- Git integration with Jenkins
- Maven Integration with Jenkins
- Ansible, Artifactory integration
- Docker and scanning tool integration
- AWS and code review tool

6: Jenkins User administration

- Role based administration
- Project based administration
- · Metric based administration
- Slaves configuration
- Users and groups creation



Maven Modules

1: Build Tolls overview

- What is maven and Msbuild, Pybuild, gradleandant
- Maven Evolution
- Maven Objective and Environment setup
- · Maven project creation
- What is POM. Xml and superPOM
- Maven build lifecycle creation and Default Build lifecycle

2: Customized Project and plugin setup

- Maven Project setup
- Maven plugin download and setup
- Maven Build automation with CI service

3: Maven Repositories and GAV snapshots

- What is GAV and project and Snapshots, version
- Maven Web application creation withpom.xml
- What is Maven repository
- Local repo
- Central repo and Remote repo
- Maven Dependencies and plugin



Complete guide to Kubernete

1: Introduction to Kubernetes

- · The need for a Container Orchestration Engine
- Battles of COEs, which one to choose
- Key Features of a COE
- What makes Kubernetes the defac to COE choice.
- Negatives of using Kubernetes

2: Key Concepts of Kubernetes

- Namespaces
- Pods
- Replica Sets and Deployments
- Service Discovery and Load Balancing
- · Config maps, Storage, Network, RBAC
- Stateful sets, Crons and Jobs
- Kubernetes Architecture

3: Setting up Environment

- Provisioning and configuring on AWS
- Initialize Cluster with Kubeadm
- Setting up Weave CNI
- Launching Kubernetes Dashboard
- Setting up a Kubernetes Visualizer
- Resetting cluster created with kubeadm



4: Building blocks of Pods

- Introduction to pod
- · Writing pod Specification
- Launching and Operating Pods(Logintothepod, browsingthewebUlofthepod)
- Attaching a volume to a Pod
- Launching Multi-Container Pods
- Connecting to Individual Containers Launching Replica Set and Fault Tolerance
- Solution part-Deploying a worker app

5: Managing Application Configurations with Config Maps and Secrets

- Introduction to Config Maps and Secrets
- Creating Config Map for Vote app
- Setting up Environment Specific Configs
- Adding Configs from Files
- Creating Secrets to Encrypt Database
- Setting Environment vars using Secrets.

6: Setting up Fire wall with Network Policies

- Creating default network policy for namespace
- Exposing public facing app and allowing inter namespace communication

APPONIX academy

OUR RECENT PLACEMENTS



MR. SRUSTIK GOWDA GE HEALTHCARE DEVOPS ENGINEER



MS. DHANASHRI
IZMO LIMITED
CLOUD ENGINEER



Mr. Yogesh
NEXTGEN
CLOUD ENGINEER



MR. VIVEK ANGADI
INTEGRA MICRO SYSTEMS PVT LTD
LINUX SUPPORT ENGINEER



MR. CHETAN SASTRY
AHANA SYSTEMS
AWS DATA ANALYTICS



Ms. Megha Krishna
TTG TECH SOLUTIONS PVT LTD.
NETWORK CLOUD ENGINEER



Mr. Anup C Batakurki SECURONIX CLOUD SUPPORT ANALYST



Mr. Ranjith Sheelvanth

AATMANI SOLUTIONS PVT LTD

DEVOPS ENGINEER



MS. ROHINI S
TECHNICOLOUR INDIA LIMITED
CLOUD SECURITY ENGINEER



Ms. Tejas Patil
NETZARY INFODYNAMICS
LINUX ENGINEER



MR. MOHAMMED KALEEM
MINDTREE
SENIOR AZURE ENGINEER



Ms. Sunil Basavaraj
INTEGRA MICRO SUSTEMS PVT LTD
LINUX SUPPORT ENGINEER

APPONIX academy

OUR ALUMNI WORKING IN































































