KKAR Technologies
....Career Through opportunities

RHCSA Syllabus

1. Understand and use essential tools

- ✓ Access a shell prompt and issue commands with correct syntax
- ✓ Use input-output redirection (>, >>, |, 2>, etc.)
- ✓ Use grep and regular expressions to analyze text
- ✓ Access remote systems using ssh
- ✓ Log in and switch users in multiuser targets
- ✓ Archive, compress, unpack, and uncompress files using tar, star, gzip, and bzip2
- ✓ Create and edit text files
- ✓ Create, delete, copy, and move files and directories
- ✓ Create hard and soft links
- ✓ List, set, and change standard ugo/rwx permissions
- ✓ Locate, read, and use system documentation including man, info, and files in /usr/share/doc

2. Operate running systems

- ✓ Boot, reboot, and shut down a system normally
- ✓ Boot systems into different targets manually
- ✓ Interrupt the boot process in order to gain access to a system
- ✓ Identify CPU/memory intensive processes, adjust process priority with renice, and kill processes
- ✓ Locate and interpret system log files and journals
- ✓ Access a virtual machine's console
- ✓ Start and stop virtual machines
- ✓ Start, stop, and check the status of network services
- ✓ Securely transfer files between systems

3. Configure local storage

- ✓ List, create, delete partitions on MBR and GPT disks
- ✓ Create and remove physical volumes, assign physical volumes to volume groups, and create and delete logical volumes
- ✓ Configure systems to mount file systems at boot by Universally Unique ID (UUID) or label
- ✓ Add new partitions and logical volumes, and swap to a system non-destructively

4. Create and configure file systems

- ✓ Create, mount, unmount, and use vfat, ext4, and xfs file systems
- ✓ Mount and unmount CIFS and NFS network file systems
- ✓ Extend existing logical volumes
- ✓ Create and configure set-GID directories for collaboration
- ✓ Create and manage Access Control Lists (ACLs)
- ✓ Diagnose and correct file permission problems

5. Deploy, configure, and maintain systems

- ✓ Configure networking and hostname resolution statically or dynamically
- ✓ Schedule tasks using at and cron
- ✓ Start and stop services and configure services to start automatically at boot
- ✓ Configure systems to boot into a specific target automatically
- ✓ Install Red Hat Enterprise Linux automatically using Kickstart
- ✓ Configure a physical machine to host virtual guests
- ✓ Install Red Hat Enterprise Linux systems as virtual guests
- ✓ Configure systems to launch virtual machines at boot
- ✓ Configure network services to start automatically at boot
- ✓ Configure a system to use time services
- ✓ Install and update software packages from Red Hat Network, a remote repository, or from the local file system
- ✓ Update the kernel package appropriately to ensure a bootable system
- ✓ Modify the system bootloader

6. Manage users and groups

- ✓ Create, delete, and modify local user accounts
- ✓ Change passwords and adjust password aging for local user accounts
- ✓ Create, delete, and modify local groups and group memberships
- ✓ Configure a system to use an existing authentication service for user and group information

7. Manage security

- ✓ Configure firewall settings using firewall-config, firewall-cmd, or iptables
- ✓ Configure key-based authentication for SSH
- ✓ Set enforcing and permissive modes for SELinux
- ✓ List and identify SELinux file and process context
- ✓ Restore default file contexts
- ✓ Use boolean settings to modify system SELinux settings
- ✓ Diagnose and address routine SELinux policy violations