Overview of Week 2

Introduction to ServiceNow:
ServiceNow is a programmable IT service management platform used to address many general business needs in one company function across various domains for example IT, employee relations (HR), finance, customer support, and security. ServiceNow is an integrated set of business software solutions, which makes it the enterprise service management (ESM) solution that organisations can use to increase efficiency, satisfaction, and value while lowering costs. The platform has the capability of implementing the automation of different processes; management of multiple service-related tasks; flow of data in real-time for purposes of decision making. Also, it creates a very fluid platform that can be used to create anything an organization may require from software applications.

Course Goals:
Here we have designed this course in such a way that every participant will understand the ServiceNow features, function, and structure at the maximum level. In this way, it is designed to introduce the learners to the ServiceNow Admin Certification exam and practical experience of working with the platform as well as its detailed description. The platform will be available to the participants, and they will be enabled to perform key operations like configuration of the platform, defining of workflows, users and roles management and data security. This course is meant to enrich the learner with all the skills that is needed for the administration and optimization of ServiceNow instances to improve on the service deliveries in the organization.
Key Topics Covered:
1. Platform Overview and Architecture:
ServiceNow can be classified as being an Application Platform-as-a-Service which is APaaS that offer flexible, secure and extensible environment to support business operations and for enabling application development. Most cloud-based platforms use a multi-tenant model in which the customers share the same instance; however, ServiceNow uses the multi-instance model. In this setup, each customer has his own copy of the platform to run in isolation from other customers and come with own database, configurations, and settings. This approach offers several advantages.

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Data Security: Each one is separate from another making the data secured and protected from other instances.
Customization: Another is that organizations have full control over customizing their instances without being constrained by the alterations made to other customer's templates.
Performance: When specific to gateway instances, it becomes optimal in respect to its performance and scalability of resources assigned.
Compliance: Reduced compliance risks because of data localisation, other words data ownership.

Another aspect of ServiceNow's architecture is a rich support of a third-party application interface and data integration, which enables easy interaction between different business applications and services.

2. User Interface and Branding:
ServiceNow offers several user interfaces that cater to different roles, use cases, and preferences: ServiceNow offers several user interfaces that cater to different roles, use

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Native UI: A console is the primary tool for administration and development of all the aspects of the ServiceNow to include features such as application development, platform configuration, as well as management tools. The Native UI is for achieving more functionality than any other UI out there, it supports real-time navigation through menus, forms, and dashboards.
Service Portal: Web based GUI, very malleable and easy to use, aimed at giving the end user the best self help application interface. The Service Portal provides a convenient solution, which lets developers build appealing user interfaces that correspond to the brand, as well as to facilitate the effective completion of tasks and the execution of actions such as request submission, incident reporting or access to knowledge articles.
Mobile Applications: Mobile solutions available in ServiceNow environment include; ServiceNow Agent app, Now Mobile, and ServiceNow Onboarding app as they allow users to work seamlessly even when on the move. The mobile apps support functionality like approvals, incidences and tasks – giving a good mobile experience.
ServiceNow also has the possibility to brand as much as possible, which means organizations can adjust interfaces' appearance. This ranges from changing of colors, logos, fonts and layout to fit the branding regulations set by the organization as well as to make the users find it more attractive.

3. Security and Authentication:
Security is one of the most significant features of the ServiceNow platform, which integrates various measures to protect data and provide proper security measures. The platform supports a variety of authentication methods, such as:

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Local Database Authentication: The users verify themselves against the password that is stored in the database of ServiceNow instance.
Single Sign-On (SSO): Compatibility with other SSO solutions such as SAML or OAuth means that users only have to log in once into various systems, and this is both secure and more convenient.
LDAP (Lightweight Directory Access Protocol): Facilitates integration with their corporate directories to perform user administration and authentications in one place.

OAuth 2. 0: An authentication procedure that uses tokens, normally applied in API connections as well as delegated security.
Multi-Factor Authentication (MFA): Another layer of security that is password controlled with other several forms of controlling measures such as a mobile device code for instance, in the case that the passwords have been intercepted.
Another form of access control used by ServiceNow is role based access control (RBAC). RBAC helps to protect an organization from unauthorized access to data and functions and allows access only to members who have been authorized to perform particular function in an organization. Based on the job description, roles can be established and then given to the users or groups to manage access to the required or selected modules, information and much more.

4. Roles and Groups:
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Users: Concrete users of the ServiceNow instance, including any employed person using his or her gear. A user always contains a set of parameters that describe his or her personal accounts, phone numbers, and other rights.
Groups: Special interest group of users who meet for the purpose of performing similar tasks. They help in organization of permissions and access rights and make it easier for the administrators to grant permissions to many users.
Roles: Structures that, define the activities of the profiles that are within them, in relation to the platform. Permissions may be given to individual users or to groups, for instance to enable them to create records, alter such workflows as may have been implemented, or have rights to access particular modules.
This organisational arrangement leads to precise definition of the access privileges such that the user is only in a position to work with the data and utilities that pertain to his or her work post, making the system more secure as well as efficient.

5. Backup and Data Management:
Data integrity and data backup capabilities are well addressed by ServiceNow through applied data management approach. The platform does weekly full backups and daily differential backups to reduce the possible loss of data, and to enable easy restoration in the event of system failures. It also has on-demand backup options that will allow organizations to create backup points before massive changes or updates occur. In addition, all their data centers are protected according to the international requirements and standards, which include GDPR, HIPAA, and SOC 2 requirements for the secure processing and storage of all data.

6. Advanced Security Measures:
ServiceNow provides multiple advanced security features to ensure robust data protection and compliance with regulatory requirements:

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Multi-Factor Authentication (MFA): This goes beyond standard identification since the users will have to provide several proofs of their identity hence making it even more secure.
Instance Isolation: Multi-instance environment of the platform helps to guarantee and provide Customers' data isolation and security, so there is no connection with other Customers, and accordingly, full data ownership.
IP Whitelisting and Blacklisting: The platform also has the security feature to enable or disable an IP address to access the platform depending on the administrator's discretion.
Data Encryption: regarding the security measures put in place to protect data in the database, ServiceNow explains that it employs encryption for both the data at rest and the in-transit data to enhance the security of the data within the system.
Security Incident Response: In-built modules enable the identification of security events, handling of threats, and even responses autonomously through defined auto-escalation processes and connectivity to other security solutions in use.
7. Mobile Applications:
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ServiceNow Agent: Currently designed for field service agents and other employees, who have the need to handle tasks, incidents or services while on the move. Some of the essential components which are usually considered are offline mode, push notifications, and barcodes.
Now Mobile: Intended for most employees ensuring that they have the means and especially the access which might include checking status of the request, company news, reporting incidents and approval.

ServiceNow Onboarding: Designed for the new employees, it speeds up the onboarding process, presents company's key information, tasks, and forms to facilitate adjustment to that company.
Such mobile solutions are built in as part of the ServiceNow suite; data is tied together in real-time, thus allowing cross-device, real-time collaboration.

8. ServiceNow Instances:
A multiple instance architecture being implemented in ServiceNow is much more beneficial than multiple tenants' approach. Thus, in this architecture each organization runs in its own instance, they have their own data base and configurations. That way, data, processes and customizations are safeguarded while also serving discrete client organisation needs. Moreover, in case of multiple instances, ServiceNow can provide better regarding service quality and availability since each instance is tuned for the customer's workload. This also helps in delineating updates and patches so that the customers can decide on when they want the changes to be made without much inconvenience.

Conclusion:
This course includes all the topics that will be helpful to deliver the complete notion of service now and to pass the ServiceNow Admin Certification and useful in real-life environment. Interactive practical sessions will be conducted to make the participants understand how the platform should be configured and set in tune to ensure that they cater for the specific requirements of the organization about the users and security settings for the best performance. The knowledge gained will enable participants to unlock modern service management within their organization resulting to improved service delivery and operations within organisation that adopt the ServiceNow platform.