WEEK 4 LEARNINGS:

SERVICENOW SCRIPTING:

INTRODUCTION TO DEVELOPMENT(SCRIPTING INTRODUCTION):

Introduction to Development Scripting in ServiceNow

ServiceNow is a cloud-based platform designed to manage IT services, automate business processes, and enable digital workflows. Development in ServiceNow largely revolves around customizing the platform to meet business-specific needs through scripting. Scripting in ServiceNow allows developers to create tailored solutions, automate tasks, and enhance the user experience beyond the out-of-the-box features.

1.Key Scripting Languages

ServiceNow primarily uses JavaScript for scripting, as it is versatile and can be used on both the server and client side. Developers can use standard JavaScript functions along with ServiceNow's proprietary API methods to manipulate data and automate processes within the platform.

2.Types of Scripting in ServiceNow

Client-Side Scripting: This is executed in the user's browser. Client-side scripts enhance the user interface and improve the overall user experience. Examples include:

Client Scripts: Used to control form behavior like validation and field population.

UI Policies: Provide a declarative way to manage form interactions without extensive coding.

Server-Side Scripting: This is executed on the server and is used for backend processing. Examples include:

Business Rules: Triggered when records are inserted, updated, or deleted. They are used to apply business logic.

Script Includes: Modular pieces of reusable server-side code that can be invoked in other scripts.

Scheduled Jobs: Automate tasks that need to occur at regular intervals, like data cleanup or report generation.

3.Popular Scripting Components in ServiceNow

Business Rules: These are server-side scripts executed when a record is inserted, updated, deleted, or queried. They allow customization of data behavior and automation of tasks.

Client Scripts: Client-side JavaScript code that is executed when forms are loaded or fields are changed. This scripting improves the interaction and responsiveness of forms.

UI Actions: Create custom buttons or links that can execute scripts on forms and lists to perform specific actions, such as saving data or redirecting users.

Script Includes: These are reusable server-side scripts that can be invoked from other server scripts, allowing for modular and maintainable code.

4. Scripting API

ServiceNow provides an extensive API (Application Programming Interface) that developers can use to interact with the platform. Some commonly used APIs include:

- GlideRecord: Used for querying and modifying records in the ServiceNow database.

- GlideSystem (gs): Provides a set of methods to interact with the system, log messages, and retrieve information like the current date or user.

- GlideUser: Allows access to the logged-in user’s information, such as roles and preferences.

These APIs provide powerful functionality that makes complex automation and customization straightforward and effective.

5.Benefits of Scripting in ServiceNow

- Automation: Scripts enable the automation of repetitive tasks, reducing manual effort and improving efficiency.

- Customization: Developers can tailor the platform to meet specific business requirements, making the user experience seamless and efficient.

- Integration: Scripts allow for integration with third-party systems and databases, extending ServiceNow’s functionality.

6. Best Practices for Scripting in ServiceNow

- Keep It Simple: Write modular and maintainable code. Use Script Includes for reusable logic.

- Leverage Out-of-the-Box Features: Avoid over-customizing and try to leverage ServiceNow’s built-in functionality when possible.

- Use Appropriate Scripting Types: Understand when to use client-side vs. server-side scripting based on the need.

- Test Thoroughly: Always test scripts in a non-production environment to ensure they work as intended and don't introduce issues.

In conclusion, development scripting in ServiceNow plays a crucial role in extending the platform's capabilities, enabling businesses to automate tasks, create tailored solutions, and optimize service management processes. The use of client-side and server-side scripting ensures that the platform is both flexible and powerful, able to meet a wide range of business needs.

CLIENT SCRIPTS:

Client Scripts in ServiceNow are JavaScript code that run in the browser and enhance the user experience by manipulating forms and their fields. They allow developers to control form behavior, validate input, and provide real-time feedback without interacting with the server.

1.OnLoad: Executes when a form is loaded. This is used to pre-fill form fields, hide/show fields, or set default values based on conditions.

- Example: Hiding a field for non-admin users when the form loads.

2. OnSubmit: Executes when the form is submitted. It's typically used for validation or to prevent the form from being submitted if certain conditions are not met.

- Example: Preventing submission if mandatory fields are not filled out.

3. OnChange: Runs when a specific field's value is changed. This can be used to dynamically update other fields or perform actions based on the new value.

- Example: Updating a priority field based on the urgency level chosen by the user.

4. OnCellEdit: Triggered when a cell is edited in a list view. This is used to perform specific actions or validations when inline edits are made.

- Example: Automatically adjusting related values when a cell is edited in a table list.

These scripts provide a responsive and interactive user interface within ServiceNow forms.

WHAT IS SERVICENOW?

- ServiceNow is a cloud based platform, which was mainly developed for workflow and process automation as per the ITIL principles.
- However, it is highly customisable and also can be used for other purposes.

SERVICES OF SERVICENOW:

ServiceNow Services Overview:

1. IT Service Management (ITSM):ServiceNow's ITSM streamlines IT workflows, automating incident, problem, and change management, improving service delivery and operational efficiency across the organization.

2. HR Service Management (HRSM):Provides a centralized platform for HR operations, enabling better employee experiences through automated workflows, case management, and self-service portals.

3. Governance, Risk, and Compliance (GRC): Helps organizations manage regulatory compliance, risk assessments, and audit processes by integrating policies and risk management frameworks.

4. Integrations:ServiceNow offers robust integrations with various third-party tools, allowing seamless data flow and automation across platforms for improved collaboration and efficiency.

5. IT Asset Management (ITAM):Tracks and manages the lifecycle of IT assets, optimizing resource allocation, reducing costs, and ensuring compliance with software and hardware management.

6. Finance Operations Management:Streamlines financial processes like accounts payable, procurement, and expense management, enhancing visibility, control, and efficiency in financial operations.

7. IT Business Management (ITBM):Enables organizations to align IT initiatives with business goals, providing tools for project and portfolio management, resource planning, and performance tracking for better decision-making.

STEPS TO GET FREE SERVICENOW INSTANCE:

- Step 1: SignUp from https://developer.servicenow.com/app.do#!/home
- Step 2: Fill the Registration form
- Step 3: Verify your account
- Step 4: Now Login to your ServiceNow Developer Platform.
- Step 5: Request/create an instance.
- Step 6: Choose the ServiceNow Developer Instance Version
- Step 7: Instance Credentials Info
- Step 8: Login into your ServiceNow Developer instance

INSTANCE ACTIVITY:

- If the instance is inactive for 10 days, then the instance is released
- If your instance is inactive for more than 24 hours, then your instance may go into hibernation state.

HOW TO BECOME A SERVICENOW DEVELOPER:

1. Get a Bachelor's Degree:While not mandatory, earning a bachelor's degree in computer science, information technology, or a related field provides a strong foundation in programming, databases, and systems management, which are key to becoming a ServiceNow developer.

2. Learn JavaScript and ITIL Basics:JavaScript is essential for building and customizing workflows within ServiceNow. Additionally, understanding ITIL (Information Technology Infrastructure Library)basics will help you grasp key IT service management concepts, making you more effective in developing solutions.

3. Complete ServiceNow Courses and Certifications:Enroll in ServiceNow-specific training courses, which cover platform fundamentals, development, and advanced techniques. Certifications such as Certified Application Developer

(CAD) or Certified Implementation Specialist (CIS)help validate your skills and improve career prospects.

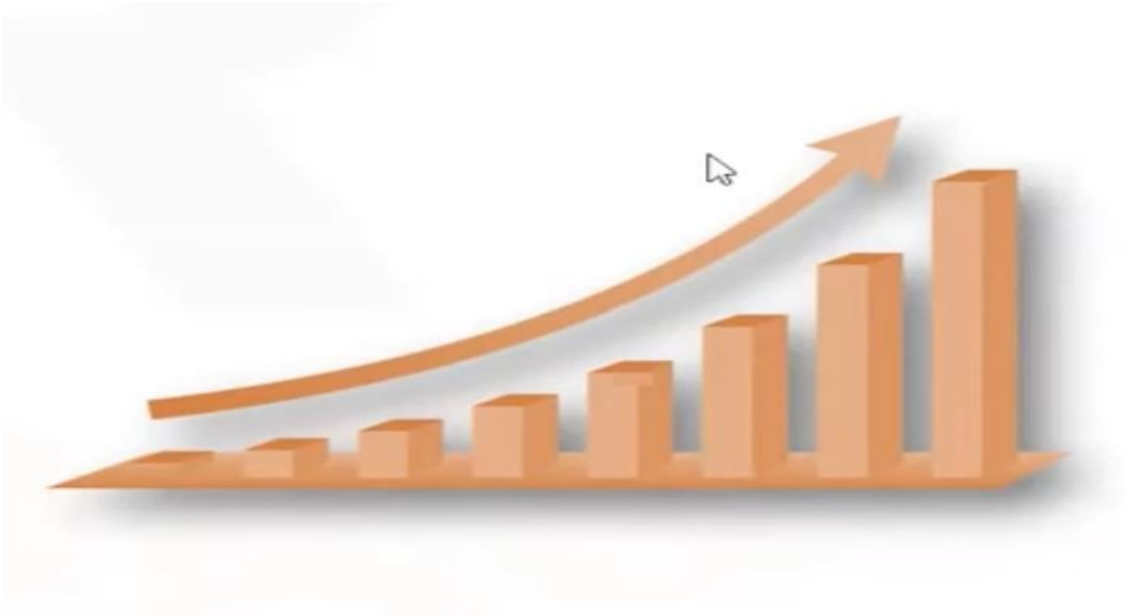
4. Practice on ServiceNow's Developer Instance:Get hands-on experience by registering for a free ServiceNow developer instance. Practice creating custom applications, workflows, and automations to build your skills.

5. Gain Real-World Experience: Seek internships, junior developer roles, or freelance projects to gain real-world experience with ServiceNow development, ITSM, and integrating with enterprise systems.

CAREER AND GROWTH IN SERVICENOW:

ServiceNow is expected to continue to grow even in future.

- Currently, Cloud Platform is the Very popular.
- In the cloud platform, ServiceNow is the best tool to use because of its simplicity and ease of use



Career and Growth in ServiceNow Across Various Industries:

1. Governance:In governance roles, ServiceNow professionals focus on implementing and maintaining platforms for Governance, Risk, and Compliance (GRC). This is crucial for managing risks, ensuring regulatory compliance, and improving transparency in decision-making processes, providing a solid career path in public sector organizations or large enterprises.

2. Computer Software:ServiceNow developers in the software industry work on customizing and expanding ServiceNow's capabilities, integrating it with other software tools, and developing new applications. This role offers growth in areas like cloud computing, DevOps, and automation.

3. Insurance:The insurance industry leverages ServiceNow for IT service management, risk assessment, claims processing, and customer service automation. ServiceNow experts in this field often grow into roles focused on improving operational efficiency, customer experience, and regulatory compliance.

4. Healthcare: In the healthcare sector, ServiceNow streamlines IT operations, patient service management, and compliance with healthcare regulations like

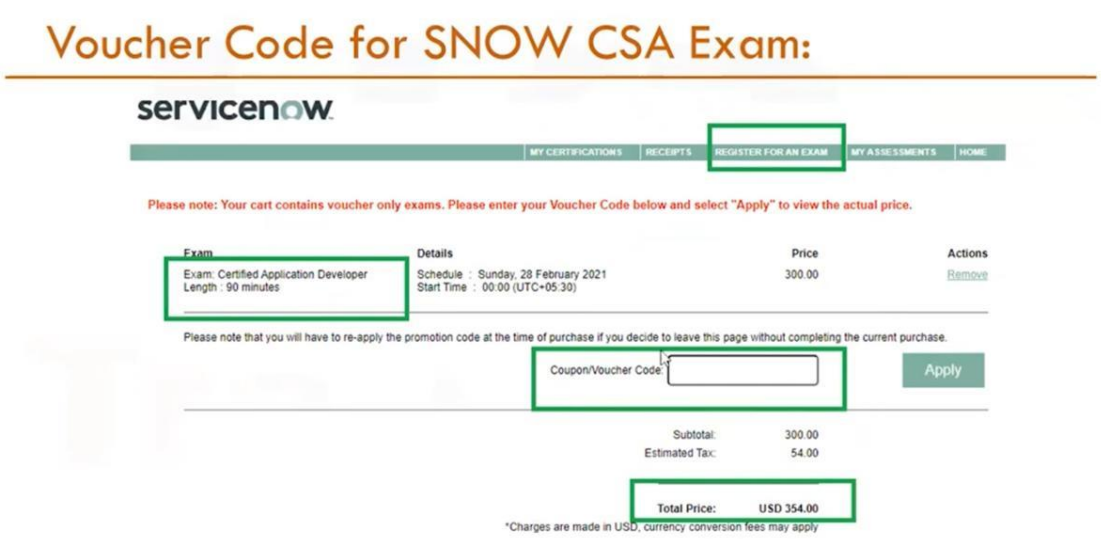
HIPAA. A career here could evolve into roles focusing on healthcare technology, improving patient experiences, and automating clinical workflows.

5. Information Technology and Services: In the IT services field, ServiceNow is widely used for ITSM, ITBM, and ITOM (IT operations management). A career here provides strong growth opportunities in areas such as enterprise automation, cloud-based services, and digital transformation projects across industries.

SERVICENOW CERTIFICATION TRAINING:

Are you are a ServiceNow aspirant?

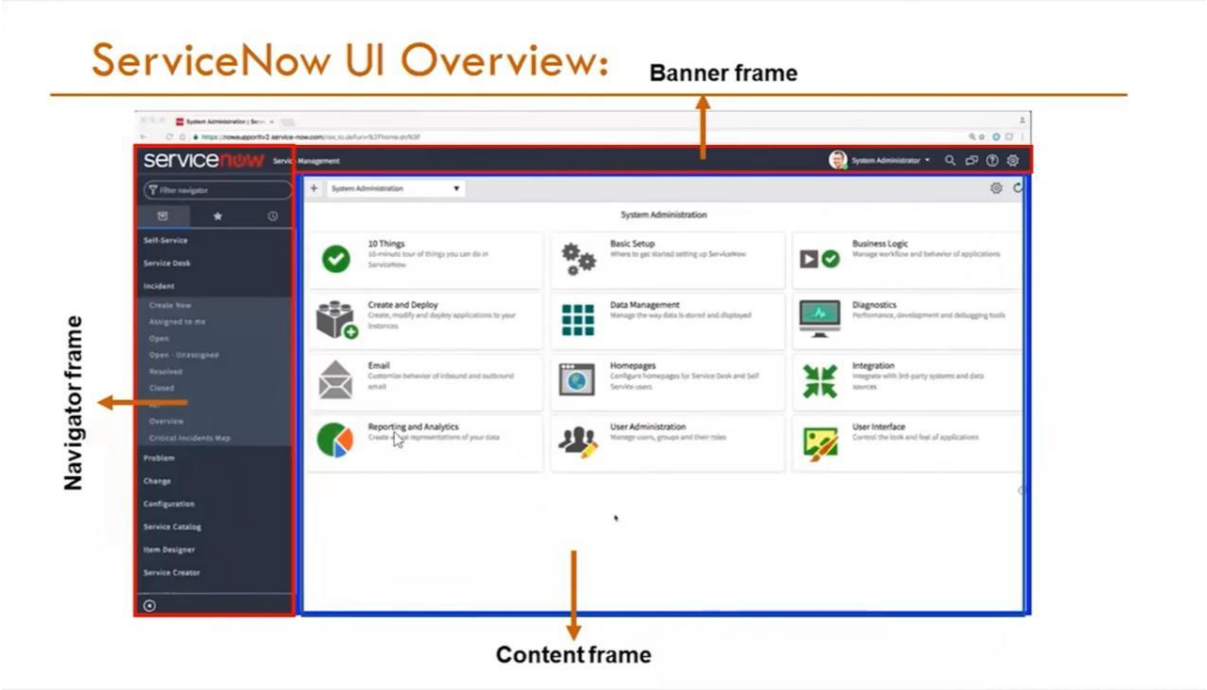
Then, you need to gain knowledge and practical experience on the concepts of ServiceNow to grab the best job opportunity and boost your career.



- You may purchase a voucher when you complete your course
- Follow a paid virtual instructor led course, on completion of your course you will receive a voucher.

SERVICENOW UI OVERVIEW:

- We interact with the application and modules of the ServiceNow platform through the user interface using a web browser.
- The version of the user interface that accompanies the Istanbul version of ServiceNow is called Ull 6.



ServiceNow UI Overview:

1. Banner Frame:

The banner frame is located at the top of the ServiceNow interface. It contains the global search bar, which allows users to search for records, applications, and modules across the platform. It also includes user profile settings, notifications, and the settings icon for personalizing the UI (e.g., changing themes or layouts).

2. Navigator Frame:

The navigator frame is positioned on the left side of the interface. It contains the Application Navigator, which allows users to browse and access various ServiceNow applications, modules, and records. Users can search for specific modules, customize their favorites, and quickly navigate between different areas of the platform.

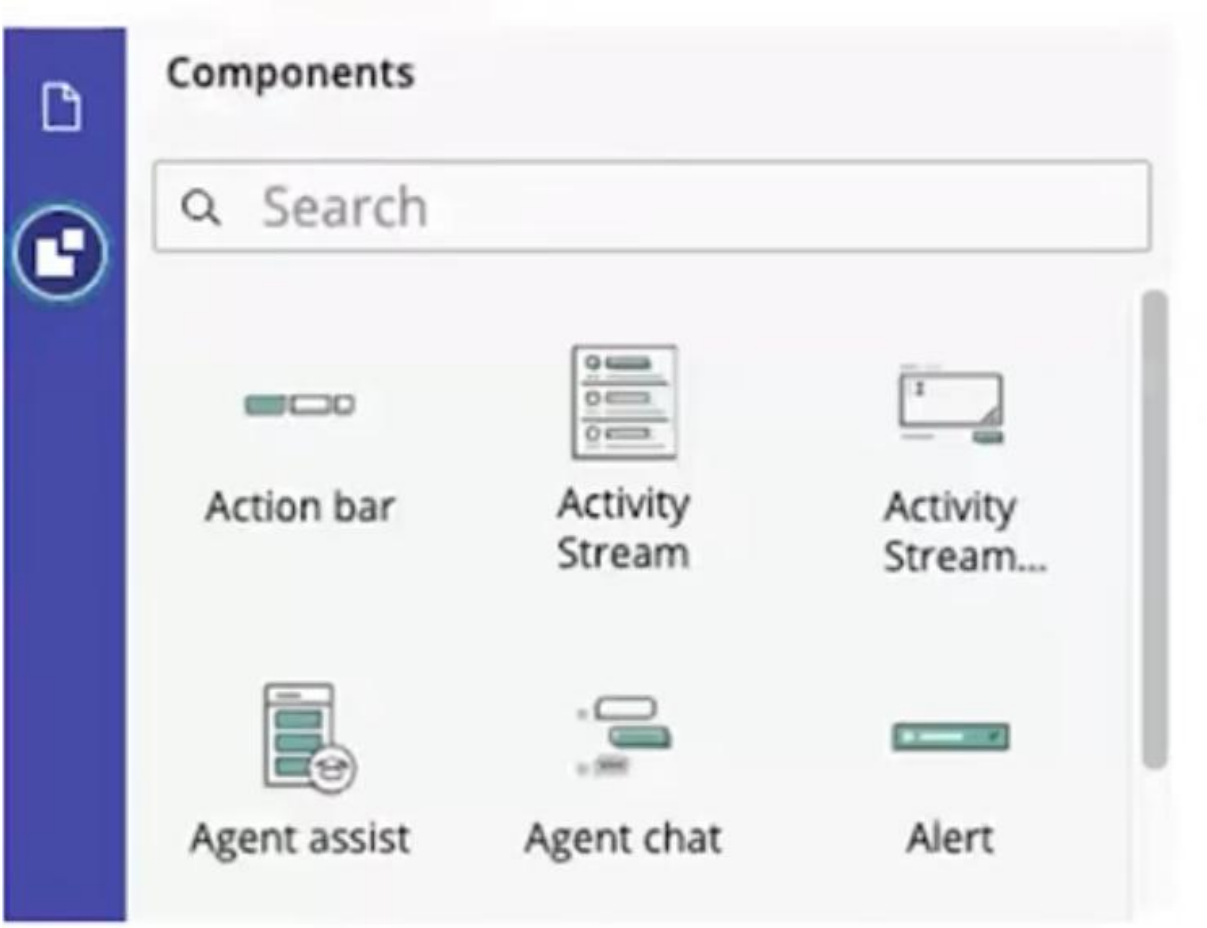
3. Content Frame:

The content frame is the central and largest section of the UI, displaying the active view or page. Whether it's a form, list, dashboard, or report, this frame presents the actual content that the user is interacting with, based on their selections from the navigator frame.

SERVICENOW COMPONENTS:

The Components are the basic elements of your page.

- Components range from the basic elements like labels, and buttons to more complex experience components like lists and forms.
- These components can be added to your page to create or personalize your workspace or portal.



1. Action Bar:

The action bar provides quick access to common actions and functions within ServiceNow. It typically appears at the bottom of forms or lists, enabling users to perform actions such as saving, submitting, or canceling tasks, as well as interacting with other options like attachments or notifications.

2. Activity Stream:

The activity stream is a chronological log of updates, comments, and changes made to a record or task. It helps users track the history of a case or incident, ensuring transparency and improving collaboration among teams.

3. Agent Assist:

Agent Assist is a feature that helps service agents by suggesting relevant knowledge base articles, records, and other resources while they work on resolving an issue. This improves efficiency by reducing the time spent searching for solutions.

4. Agent Chat:

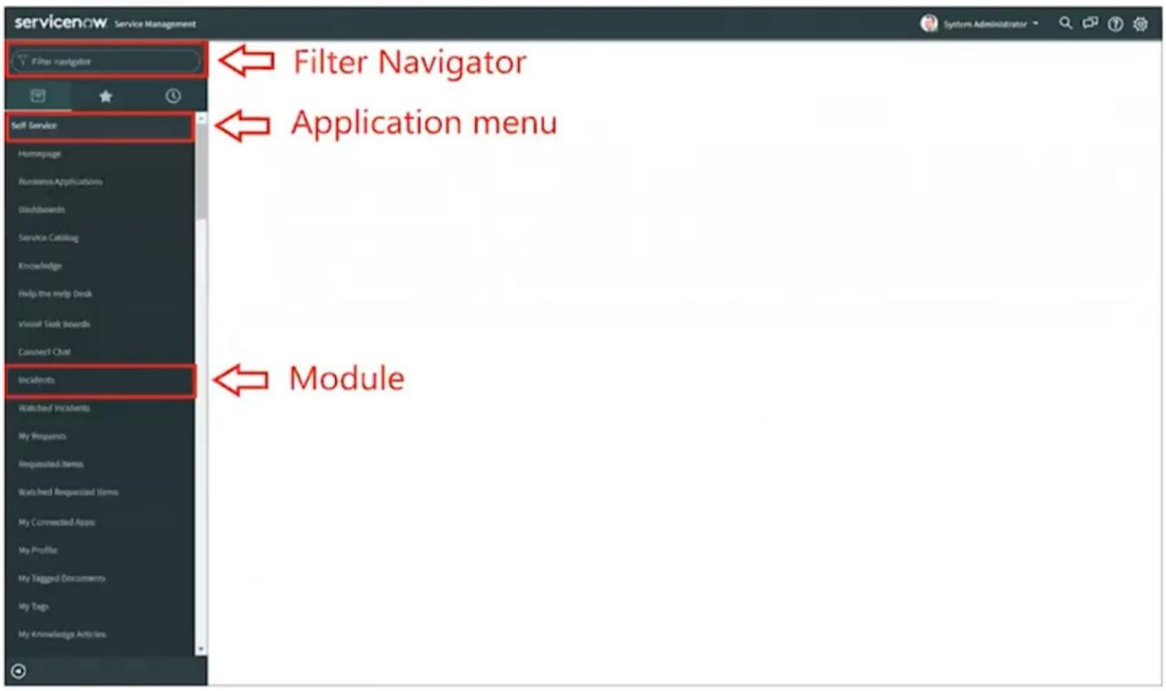
Agent Chat enables live, real-time communication between service agents and customers or internal employees. It helps improve customer service by providing immediate assistance, allowing agents to resolve issues faster and more interactively.

5. Alert:

Alerts in ServiceNow notify users of critical events, system issues, or updates that require immediate attention. These can be system-wide notifications or specific to certain tasks or incidents, helping to ensure timely responses.

MODULES:

Modules are the elements that make up the ServiceNow application navigator.



Some of the modules in ServiceNow are:

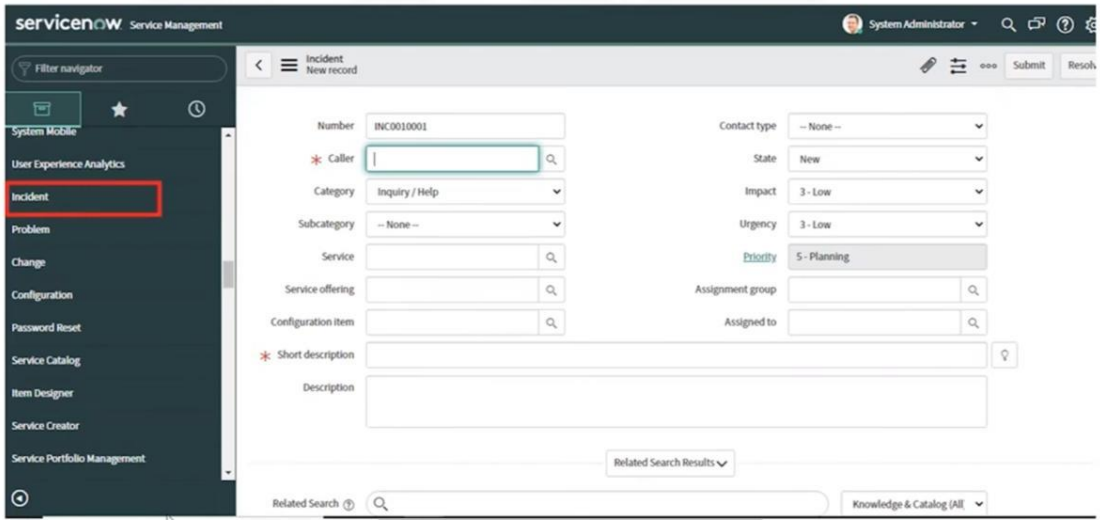
- Incident Management
- Problem Management
- Change and Release Management
- Request Management
- Asset and Cost Management
- Walk-Up Experience
- Agent Workspace
- Now Mobile, etc.

INCIDENT MODULE:

An incident is a situation where normal service operations are interrupted, disrupted or degraded.

- In ServiceNow, an open incident indicates that the customer is strongly affected or it represents a business risk.
- The process of managing the incident lifecycle is called as an Incident management.

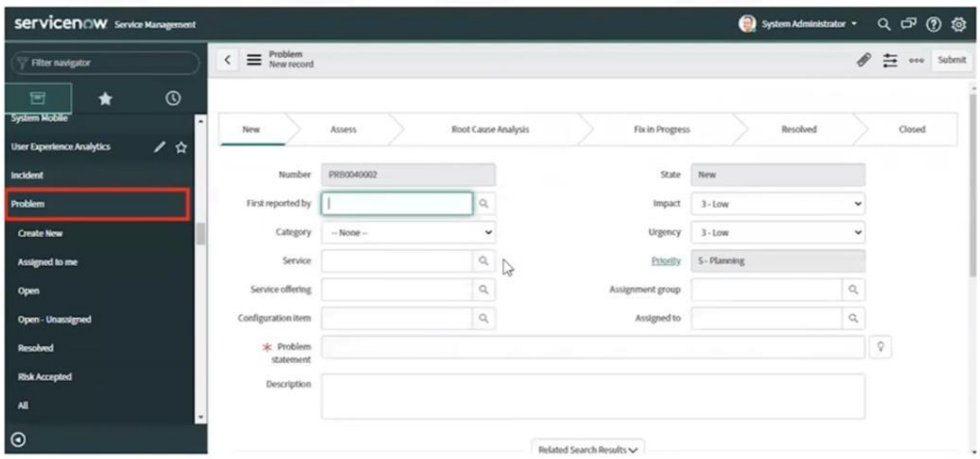
Incident Module:



PROBLEM MODULE:

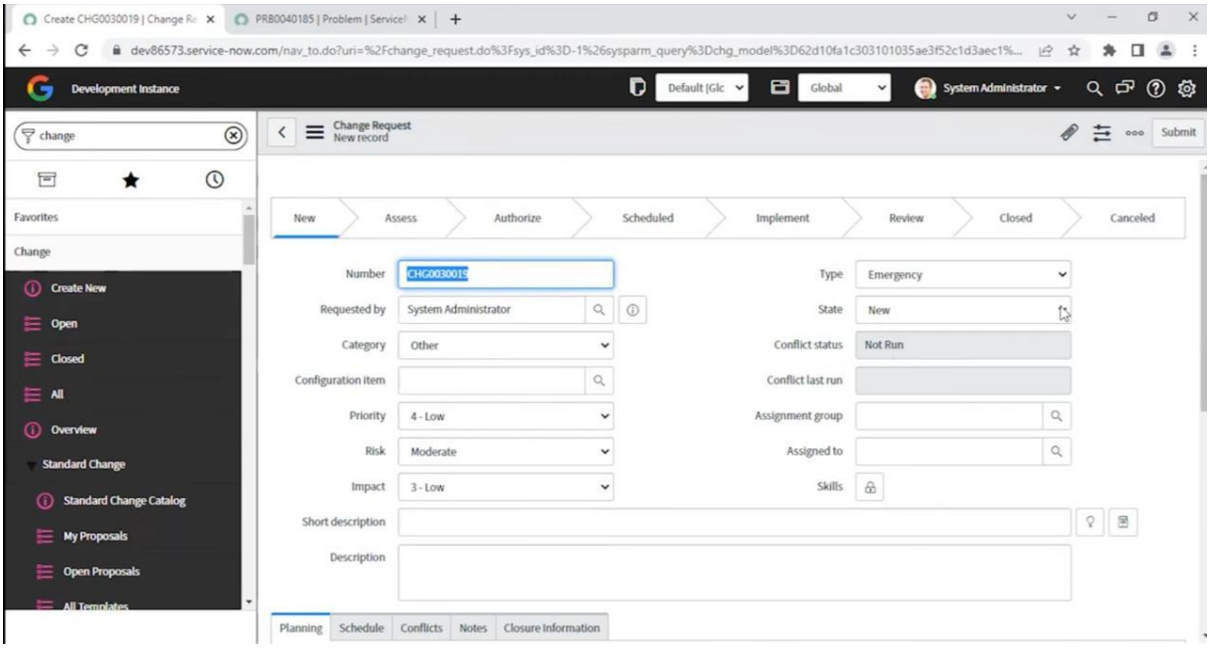
- A problem is a cause of one or more incidents.
- The process of managing the lifecycle of all the problems that arises or could arise in an IT service is called as Problem management.

Problem Module:



CHANGE MODULE:

- **change request contains detailed information regarding the change, like the reason for the change, the risk, the priority, the change type, and the change category.**
- **A systematic approach for controlling the life cycle of all changes, making it easier to make beneficial changes with less disruption to the IT services is called ServiceNow Change Management.**

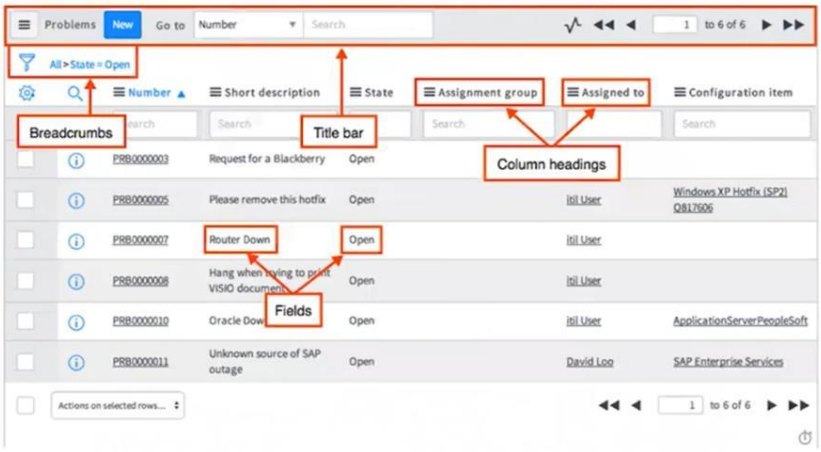


LIST MODULE:

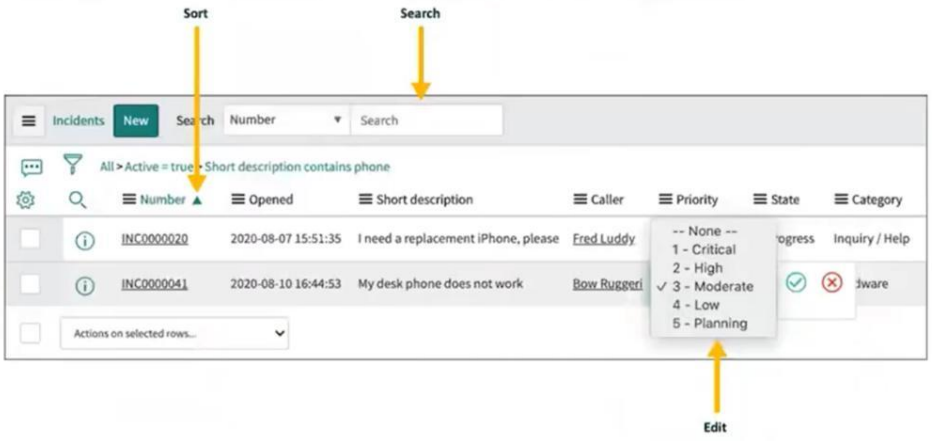
A list displays a set of records from a table.

- **Users have the ability to search, sort, filter and edit data in lists.**
- **Users can search, sort, filter, and edit data in lists. Lists can be integrated into forms and can have sublists.**
- **The list interface includes a title bar, breadcrumbs and filters, columns of data, and a footer. Every column in a list represents a field in the tabl**

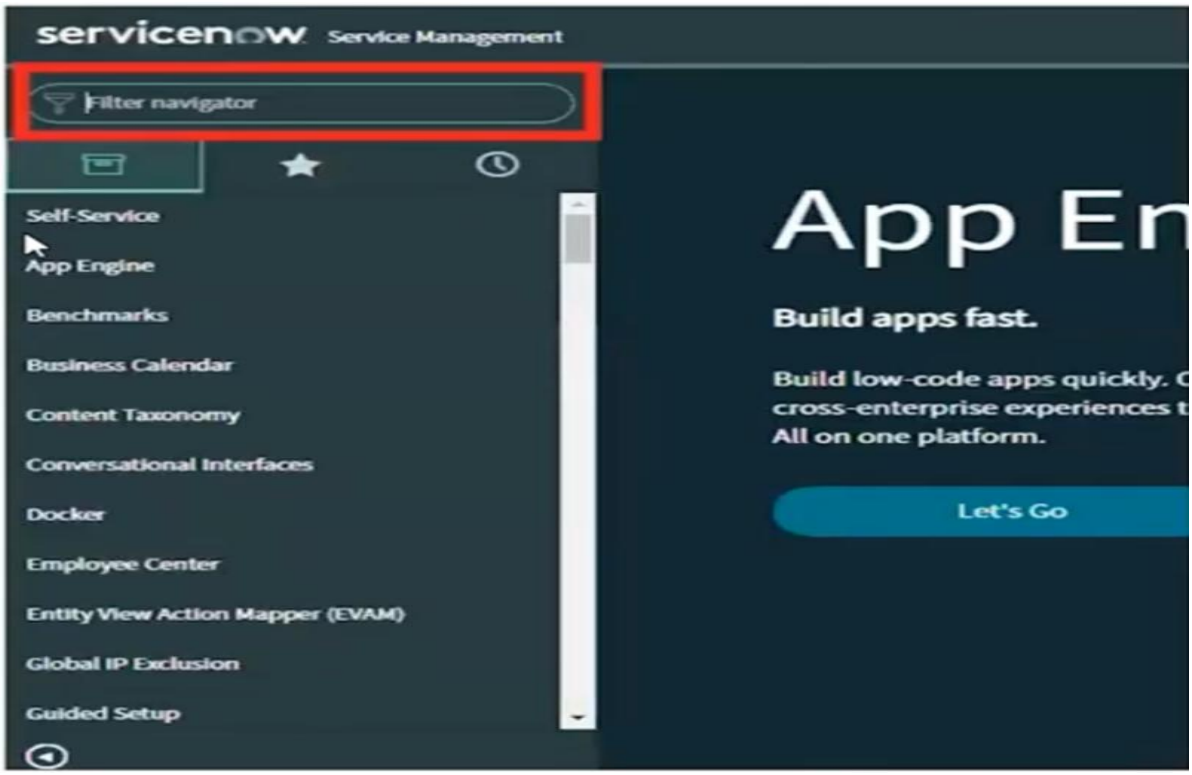
List:


Problems
New
Go to
Number
Search
1 to 6 of 6
All > State = Open
Number
Short description
State
Assignment group
Assigned to
Configuration item
Breadcrumbs
Title bar
Column headings
PRB0000003
Request for a Blackberry
Open
PRB0000005
Please remove this hotfix
Open
itil User
Windows XP Hotfix (SP2) Q817606
PRB0000007
Router Down
Open
itil User
PRB0000008
Hang when trying to print VISIO document
Open
itil User
Fields
PRB0000010
Oracle Dow
Open
itil User
ApplicationServerPeopleSoft
PRB0000011
Unknown source of SAP outage
Open
David Loo
SAP Enterprise Services
Actions on selected rows...
1 to 6 of 6

List:


Sort
Search
Incidents
New
Search
Number
Search
All > Active = true > Short description contains phone
Number
Opened
Short description
Caller
Priority
State
Category
INC0000020
2020-08-07 15:51:35
I need a replacement iPhone, please
Fred Luddy
Inquiry / Help
INC0000041
2020-08-10 16:44:53
My desk phone does not work
Bow Ruggeri
-- None --
1 - Critical
2 - High
3 - Moderate
4 - Low
5 - Planning
Actions on selected rows...
Edit

FORMS:



- Forms are opened from modules in the Application navigator or by clicking a record number in a list