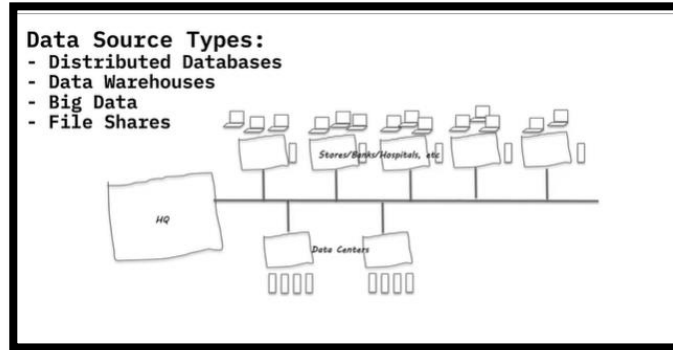


## DAILY ASSESSMENT

Date:	22/07/2020	Name:	Davis S. Patel
Course:	Network Security & Database Vulnerabilities	USN:	4AL16EC045
Topic:	Week 3	Semester & Section:	8 <sup>th</sup> - A
GitHub Repository:	Davis		

### FORENOON SESSION DETAILS

#### Image of session



#### **Data Model Types:**

- Semi-Structured Data

*Semi-structured data is data that has not been organized into a specialized repository, such as a database, but that nevertheless has associated information, such as metadata, that makes it more amenable to processing than raw data.*

**The difference between structured data, unstructured data and semi-structured data:**  
Unstructured data has not been organized into a format that makes it easier to access and process. In reality, very little data is completely unstructured. Even things that are often considered unstructured data, such as documents and images, are structured to some extent. Structured data is basically the opposite of unstructured: it has been reformatted and its elements organized into a data structure so that elements can be addressed, organized and access in various combinations to make better use of the information. Semi-structured data lies somewhere between the two. It is not organized in a complex manner that make sophisticated access and analysis possible; however, it may have information associated with it, such as metadata tagging, that allows elements contained to be addressed.

Here's an example: A Word document is generally considered to be unstructured data. However, you can add metadata tags in the form of keywords and other metadata that represent the document content and make it easier for that document to be found when people search for those terms -- the data is now semi-structured. Nevertheless, the document still lacks the complex organization of the database, so falls short of being fully structured data.

Source: <https://techtargget.com>

## **REPORT –**

Database security encompasses a range of security controls designed to protect the Database Management System (DBMS). The types of database security measures your business should use include protecting the underlying infrastructure that houses the database such as the network and servers), securely configuring the DBMS, and the access to the data itself.

### **Database security controls**

Database security encompasses multiple controls, including system hardening, access, DBMS configuration, and security monitoring. These different security controls help to manage the circumventing of security protocols.

### **System hardening and monitoring**

The underlying architecture provides additional access to the DBMS. It is vital that all systems are patched consistently, hardened using known security configuration standards, and monitored for access, including insider threats.

### **DBMS configuration**

It is critical that the DBMS be properly configured and hardened to take advantage of security features and limit privileged access that may cause a misconfiguration of expected security settings. Monitoring the DBMS configuration and ensuring proper change control processes helps ensure that the configuration stays consistent.

### **Authentication**

Database security measures include authentication, the process of verifying if a user's credentials match those stored in your database, and permitting only authenticated users access to your data, networks, and database platform.

## **Access**

A primary outcome of database security is the effective limitation of access to your data. Access controls authenticate legitimate users and applications, limiting what they can access in your database. Access includes designing and granting appropriate user attributes and roles and limiting administrative privileges.

## **Database auditing**

Monitoring (or auditing) actions as part of a database security protocol delivers centralized oversight of your database. Auditing helps to detect, deter, and reduce the overall impact of unauthorized access to your DBMS.

## **Backups**

A data backup, as part of your database security protocol, makes a copy of your data and stores it on a separate system. This backup allows you to recover lost data that may result from hardware failures, data corruption, theft, hacking, or natural disasters.

## **Encryption**

Database security can include the secure management of encryption keys, protection of the encryption system, management of a secure, off-site encryption backup, and access restriction protocols.

## **Application security**

Database and application security framework measures can help protect against common known attacker exploits that can circumvent access controls, including SQL injection.

Safeguarding the data your company collects and manages is of utmost importance. Database security can guard against a compromise of your database, which can lead to financial loss, reputation damage, consumer confidence disintegration, brand erosion, and non-compliance of government and industry regulation.

Database security safeguards defend against a myriad of security threats and can help protect your enterprise from:

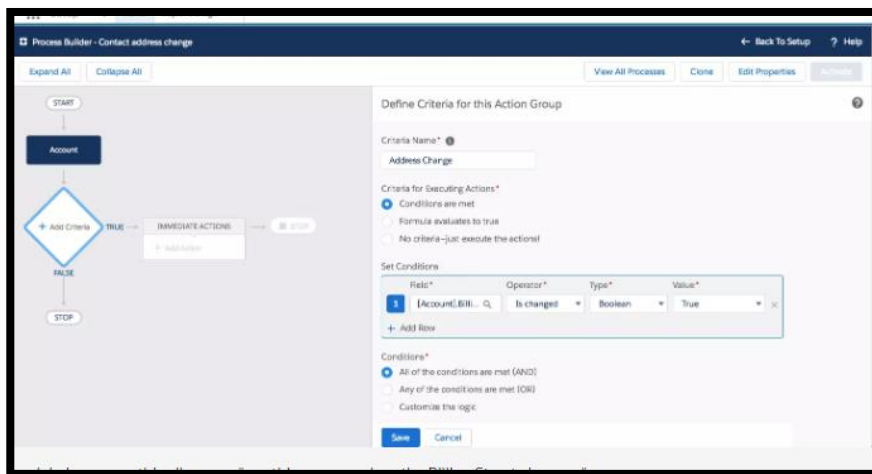
- Deployment failure
- Excessive privileges
- Privilege abuse
- Platform vulnerabilities
- Unmanaged sensitive data
- Backup data exposure
- Weak authentication
- Database injection attacks

## DAILY ASSESSMENT

Date:	22/07/2020	Name:	Davis S. Patel
Course:	Salesforce Developer	USN:	4AL16EC045
Topic:	Test Process	Semester & Section:	8 <sup>th</sup> - A
GitHub Repository:	Davis		

### AFTERNOON SESSION DETAILS

Image of Session



The screenshot shows a Salesforce Contact record for 'Mr. Tim Barr'. The record is associated with the account 'Grand Hotels & Resorts Ltd'. The 'DETAILS' tab is active, showing various fields such as 'Contact Owner' (Deepthi Bhasurya), 'Name', 'Account Name', 'Title', 'Department', 'Finance', 'Birthdate', 'Reports To', 'Lead Source', 'External Referral', 'External Phone ID', 'Mailing Address', 'Phone', 'Home Phone', 'Mobile', 'Other Phone', 'Fax', 'Email', 'Assistant', 'Asst. Phone', and 'Other Address'. The 'Mailing Address' field is circled in green and labeled with a '1'. The 'Account Name' field is also circled in green and labeled with a '2'.


## REPORT –

Process Builder is a workflow tool that helps automate business processes without writing a single line of code. For example, imagine that a company you do business with (which we call an Account in Salesforce), changes its location. You'd want a way to automatically update the business address of all the people that work at that company (your Contacts).

In this Quick Start, you'll do exactly that: create a new process that updates Contact records whenever the Account billing address changes. As you'll see, it's quite easy, and doesn't require a shred of code.

### Create a New Process on the Account Object

You first create a process and then select the object on which the process runs. You also make sure the process kicks off whenever a record is edited, because you're going to change the business address in a moment.

1. Click  and select **Setup**. This launches Setup in a new tab.
2. From Setup, enter Builder in the Quick Find box, and select **Process Builder**.
3. Click **New**.
4. For Process Name, type Contact address change.
5. For The process starts when, select **A record changes**, and click **Save**.
6. Click **+ Add Object**.
7. In the right window, select **Account** from the Object drop-down list.

8. For **Start the process** select **when a record is created or edited**.

9. Click **Save**.

10. Add Process Criteria

### Create Criteria

1. You now define the criteria that determine when this process runs.
2. Click **Add Criteria**.
3. For Criteria Name, type Address Change.
4. For **Criteria for Executing Actions**, keep it set to **Conditions are met**.
5. For Set Filter Conditions, click **Find a field...**, select **Billing Street** and click **Choose**.
6. Set Operator to **Is Changed**, and set Value to **True**.
7. For **Conditions**, keep it set to **All of the conditions are met (AND)**.
8. Click **Save**.

### Add Your Process Action

1. Create an Action
2. At this point you've defined a process, and told it when to fire, but you haven't told it what to do. In this step you define what happens when the Billing Street changes.
3. Under the Immediate Actions box, click + Add Action.
4. In the Action Type drop-down list, select Update Records.
5. For Action Name, type Update Contact Addresses.
6. For Record Type, click the radio button next to Select a record related to the Account, then scroll down and select Contacts, and click Choose. This is pretty powerful stuff, so pause and take note. Process Builder allows you to choose not just fields on Accounts, but fields that are related to Accounts.
7. For Criteria for Updating Records, keep it set at No criteria—just update the records!.

8. Under Set new field values for the records you update, click Find a field..., and then scroll down and select Mailing Street.
9. Select Field Reference for the Type.
10. For Value, select Billing Street as the Account field and click Choose.
11. Click Save.
12. Click Activate and then click Con